2011 HOUSE APPROPRIATIONS

HB 1020

2011 HOUSE STANDING COMMITTEE MINUTES

House Appropriations Education and Environment Division
Sakakawea Room, State Capitol

HB 1020
1/25/11
13326

☐ Conference Committee

Committee Clerk Signature Shirley Branning

Explanation or reason for introduction of bill/resolution:

A BILL for an Act to provide an appropriation for defraying the expenses of the extension service, northern crops institute, upper great plains transportation institute, main research center, branch research centers, and agronomy seed farm; to provide for transfers; to provide an exemption; and to declare an emergency as it pertains to the Forest Service.

Minutes: You may make reference to "attached testimony."

Chairman Skarphol: Brought the committee to order, noting that Rep. Monson and Rep. Hawken are absent for other hearings.
He introduced **Dr. Dean Bresciani, President North Dakota State University** who stated that he will be introducing the following: North Dakota Forest Service, Upper Great Plains Transportation Institute, Northern Crops Institute and a combined SBARE/Experiment Extension Service presentation. He introduced Dr. **Larry Dr. Kotchman, Director of the State Forest Service.**

Dr. Kotchman: He provided testimony see attachment # 1, pp. 1-

Chairman Skarphol: We have tried to eliminate the fluff in our hearings and try to stick with the numbers as much as possible. We will read the introductory material and if you talk mainly about the changes and recommendations in your budget that you find of most interest, we appreciate that.

Dr. Kotchman: Beginning with p. 7 of Attachment # 1. This begins the information that you requested about the present appropriation that we have. It is composed of operations, about 90% of our activities are involved with salaries and wages and operating expenses, about 10% with capital assets. We are able to serve communities, rural fire departments, soil conservation districts, school districts and citizens around the state. Continuing on p. 8 of Attachment # 1 is listed the current status of our OMB report for expenditures for Forest Service. We are consistent and on track for this time of year. As of November we had approximately 41% of the budget remaining as well as 45% of the capital assets budget remaining. We also receive revenues from the sale of trees at Towner, North Dakota and those are on track with our projections. Continuing with p. 9, there is a copy of our capital projects as well as extraordinary repairs and deferred maintenance. You provided a capital project that was appropriated last time for a new green house at Towner, North Dakota and

it nearing completion. Continuing with p. 10, Attachment # 1, the Status Report of the 2010 fiscal year revenue and expenditures from all sources. There are nursery revenues, our state appropriation as well as grants and contracts. These are used for salaries, operating and a small amount of equipment as well as some capital projects. Continuing on p. 11 is a list of the comparison of the FY 2011 budget to actual this includes salaries and operating and we are in budget. P. 12 lists the non appropriated sources in grants and contracts.

Chairman Skarphol: Elaborate more on that.

Dr. Kotchman: Each year we get funding from the US Forest Service passed through funds that are directed through training and equipping North Dakotas 348 rural fire protection districts. Tree care with communities is funded by the North Dakota Department of Transportation related to tree enhancement projects along transportation corridors. We have landowners' assistance.

Chairman Skarphol: Revenue on your trees, stable, declining, going upward, what is the trend.

Dr. Kotchman: Revenue has been stable, selling 1M trees per year and hoping to sell 1M this year.
Continuing with testimony on pp. 13-14 which contains the funding request and Executive Budget Recommendations.
The removal of Emerald Ash Borer is for $250,000 for a one to one match.

Chairman Skarphol: Will you talk more about the program enhancement?

Dr. Kotchman: Continuing with Attachment 1, p. 17, here it includes $175,510 for funding for critical issues that were identified in our recently completed assessment such as invasive forest insects, Emerald Ash Borer, communities at rish from wild fire and the restoration of forest resources. This would provide salaries in the priority areas for field offices and the nursery at Towner.

Chairman Skarphol: Is there any FTE additions in there?

Dr. Kotchman: There is one FTE associated with providing assistance to communities and fire districts. Continuing with discussion on p. 18 and this is for mitigation of Emerald Ash Borer. It is close but not in North Dakota. It has been found in Minneapolis, Minnesota and has killed 50M trees in 15 states and two Canadian provinces. North Dakota has 78M classified as ash, about 60% of all trees in small communities.
Continuing on p. 18 of Attachment 1.

Chairman Skarphol: The ash tree will be eliminated by the ash borer?

Dr. Kotchman: Yes, this may be the case. Continuing with testimony, see attachment # 1, p. 24, extra ordinary repairs

Chairman Skarphol: What did you have last time?

Dr. Kotchman: We had $36,638 in the base amount and a one-time amount for deferred maintenance of approximately $45,000. Continuing with Capital assets, Attachment # 1, p. 21. The new freezer storage conversion at Towner State Nursery as well as a building to house equipment was authorized by the State Board of Higher Education but it was not included in the Executive recommendation.

Chairman Skarphol: The $56,000 that is reflected on page 20 is equipment Is it on the green sheet? Point it out when we complete the hearing.

Dr. Kotchman: Continuing on with testimony on p. 23, an itemized summary detailing a comparison of the Board of Higher Education to the Executive Recommendation.
Concluding on p. 24 with a listing of extraordinary repairs and Capital Projects. At $41,543. This is not included in the Executive recommendation.
Closing his testimony, appreciation is expressed for past support.

Rep. Martinson: The Ash Borer will affect all communities and will they have to cut down healthy ash trees?

Dr. Kotchman: No, they will not, it affects low vigor ash, replacements are heartier.
This problem will be more devastating than Dutch Elm disease was.

Dolan: in response to the question on equipment. It is not mentioned specifically on the N green sheet but is in the Bill on p. 6.

Chairman Skarphol: Closing the hearing in HB 1020, North Dakota Forest Service.and asking if there are any further comments or questions.

Hearing Closed.

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Minutes:

You may make reference to "attached testimony."

Chairman Skarphol: Called the Committee hearing on HB 1020 Northern Crops Institute

Brian Sorenson, Director of the Northern Crops Institute (NCI): He presented testimony, expressing his appreciation for all of the support over the years. We do a wonderful job of teaching the world of the crops available throughout the state of North Dakota, see Attachment # 1, We had a graduate student from the Kansas State Milling program. He began his discussion by referring to pp. 7, delineating the initiatives for the feed production manager. Up to now it has been funded by soft money, coming from short course tuition and commodity group funds through the check off program. Funding has changed in that 25 years ago funding went to salaries but now the commodity groups want to fund projects, equipment.

Chairman Skarphol: That is not specific to the FTE that you have received funding for up above. What is the....

Sorenson: Correct. These initiatives were identified by the Northern Crops Council which is the oversight group that helps provide support and assistance to Northern Crops Institute and the Council is made up of producers representing commodity groups as well as administration from North Dakota State University, commodity group leaders around the state, and the Ag Commissioner. Continuing with testimony, see Attachment # 1, p. 8 is the base budget breaking down the general fund and the special fund sections of the budget. The main thing is going down into the Executive recommendation base increases including retirement rate correction compensation package, the NCI initiative found in the Executive Recommendation for the $199,362.

Chairman Skarphol: What is the retirement rate correction? We don't usually see decreases.

Sorenson: He is not sure how that happened.

Chairman Skarphol: Addressing Tammy Dolan, OMB Analyst, We will let you answer that.

Dolan: We had the wrong retirement rate in the system when the budgets were put together. When we realized that and were putting the Executive Budget together, we reduced the rate to the correct amount and now you have some of these reductions.

Chairman Skarphol: Would that be true on other budgets?

Dolan: No, it would these research budgets you are hearing today. South Dakota, because of the turn down in the economy, we did not receive funding for this current fiscal year but we are going down to testify later and we are sure we will receive the funding.

Chairman Skarphol: What about Minnesota? Did they fund you both?

Sorenson: Yes, Minnesota funded both. Minnesota went through an allotment procedure and we received nearly a $100,000 for the biennium.

Chairman Skarphol: What about South Dakota?

Sorenson: This last year it was Zero. We had great funding from the South Dakota Wheat Commission for the entire history of the Northern Crops Institute. We have worked hard to receive funding from other commodity groups. In this last May we were awarded a grant of $40,000 from the South Dakota Soybean Council.

Chairman Skarphol: That is over and above what came from the state of South Dakota.

Sorenson: Yes. We receive funds from out short course programs, for technical services that help promote the quality of the crops with the value side production in this region. Continuing with his testimony on p. 8. The total budget for 2011-13 is $1,654,725.

Chairman Skarphol: You have an FTE authorized and on p. 7 of the Executive Recommendation. But on the actual budget, the bill that is reflected in this handout, they don't show an increase in FTE. Addressing Dolan, can you explain that to me? On page 15, the top of the page, the copy of the bill.

Dolan: The funds that are reflected in the Executive Budget were to fund an existing position that had been previously funded with special funds. We recommended general funds for that position. That is no increase in FTE.

Sorenson: We are not seeing an increase in personnel.

Chairman Skarphol: Requested a flow chart from NCI similar to that provided by Mr. Griffin that details state funded positions and sales and grant funded positions with a different format to them so we can see which is with state dollars and which with others.

Sorenson: We are glad to do that, in fact we can do that by tomorrow.

Rep. Hawken: What kind of interaction do you have with the North Dakota Trade Office since you started this before there was a trade office.

Sorenson: We have had a great relationship with the Trade Office. We help provide educational programming as part of the trade missions that come to North Dakota and to NCI. We host a number of the groups and provide assistance in going to Big Iron, with translation. Closes his report.

Chairman Skarphol: Any further questions for the committee. Addressing Dr. Brescaini, others who might wish to speak to NCI or Forestry are invited to step up to the podium.

(Recording lapse)

No name recorded: He spoke in support of HB 1020 on behalf of the seed growers and the pulse growers. NCI has been a strong supporter of the Pulse groups in experimentation and research, citing a spaghetti product made out of yellow peas which is higher in nutrition and higher in fiber.

Chairman Skarphol: Addressing Mr. Sorenson, as far as your employees, how many are general funded and how many are special funded?

Sorenson: We are at 5 ½ positions that are appropriated funded.

Chairman Skarphol: Each way, 5 ½ scheduled.....

Sorenson: I think it is actually 6 ½ that were appropriated.

Chairman Skarphol: You will get us that chart. Addressing Dolan, do you want to comment?

Dolan: These agencies do put their pay role information into Internet Budget and Reporting System (IBARS). A schedule of employees could be provided with funding sources, dollar amounts.

Chairman Skarphol: Stated that he would like to have the information.

Meeting on NCI closed.

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Minutes: (Recording ends at 13:44)

You may make reference to "attached testimony."

Chairman Skarphol: Called the meeting to order to hear HB 1020 Upper Great Plains Transportation Institute by calling on Dr. Dean Bresciani, President of North Dakota State University.

(Not recorded)Dr. Bresciani: I will introduce Upper Great Plains Transportation Institute, Northern Crops Institute and the Agricultural Experiment Station and Extension Service. Beginning with **Gene Griffin, Director of the Upper Great Plains Transportation Institute**.
(Begin Recording)

Griffin: Wishes to discuss the goals and aspirations. See Testimony Attachment # 1

Chairman Skarphol: We want you to do that to a limited degree. There is an increase the general fund appropriations and would like you to comment just how the general funds are utilized because most of us have supposed that you are completely federally funded.

Griffin: When we talk about core administrative expenses, many of the programs for which we solicit funding, most being competitive do not cover our expenses. The administrative expenses for the institute are the director, the office manager, assistant director, associate director, a communications manager, web manager and a graphic artist. They cover those expenses and a little bit of operating expenses. We think that model will help us stay sustainable in the future but we also think that in the long run we need to fund some of the program directors salaries on all of them, especially those endorsed by the board.

Chairman Skarphol: I would like to see a flow chart of your personnel and the funding source. This will give the committee a better vision.

Griffin: There is confidence that Congress will pass a surface transportation bill this session, before the August recess. There are several programs that we have a definite interest in, one is the University Transportation Centers which provides $2M over $1M is internalized within region eight. We would hope to reauthorize the small Urban and Rural Transportation Center as well as the Rural Transportation and Safety and Security Center. It is of interest because the fatalities in the rural areas are higher than in urban areas. We are competing for the regional University Transportation Center and is a high priority. If it is successful it will reauthorize the University Transportation Centers program. The four times we have competed we have been successful. We are interested in competing for transportation and sensing communication and programming. We call it SMARTSe which stands for Surface Mobility Applications Real Time Simulation Environments. It is a company called Flow Mobile from Bismarck has provided the communications network and backbone for us. We will be putting WiFi on the transit buses in Fargo and evaluating the performance of the WiFi and the impact of ridership. Rural transit in Cass County will have buses and if successful will be installed in other areas. Continuing with testimony pp. 3-5, We want to develop a transportation Security and Counter-terrorism Center, p. 6

Chairman Skarphol: We have read ahead. Address the pressing needs we have in North Dakota. We know about the oil and gas studies that you have done. Your department has the information we need to do the best for the balance of the state. Briefly comment on that.

Griffin: We have just completed the oil patch study and the agricultural needs and issues for the entire state of North Dakota.

Chairman Skarphol: The House Majority leader asked that I introduce a bill that would address the infrastructure needs of the West. He wants a comprehensive package. I introduced the bill and we created a committee to work through my proposal and bring it to a condition that the House is willing to support. In working on that I request that Mr. Tolliver be available for us to have a discussion with him. Have come in and discuss with the Committee and go through what it is the agriculture community needs in the balance of the state.
What do you predict will happen to the Federal funds that you have competed for and received? Are you optimistic, pessimistic, neutral? Give us an idea.

Griffin: In terms of the bill, it is going to be scaled back considerably. Some of the programs will be diminished or cut seriously. We are hopeful there will be less earmarking and if scaled back it will be the earmarking aspects of them. We have not depended on earmarks in our budget but it is only close to 5%.

Chairman Skarphol: As far as your budget numbers, we can get those if we need them. Does the committee have any further questions? Hearing none.....
This hearing is closed.

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Minutes: Attachments #s.1-14

President Bresciani introduced Rodney Howe Chair, State Board of Agriculture and Education: He provided Testimony, see attachment # 1; we appreciate the Governor's budget recommendation. Moving on to discuss the budget needs and emphasizing the importance of providing a return on investment, and agricultures importance to North Dakota. The dollar amount is $26B a year or 25% of the state's economy.

D.C. Coston, Vice President for Agriculture and University Extension, NDSU: Explains the demographics of The Research Station and begins testimony, see Attachment # 2 pp.3-8.

Chairman Skarphol: Introduced the First Lady, Mrs. Dalrymple who was seated in the audience.

Dr. Duane Hauck, Director NDSU Extension Service: Begins testimony on p. 13 of Attachment # 2.

Chairman Skarphol: We have the most fun with this portion of the bill.

Dr. Hauck: The status of the investments you made last time are found in pp. 5-7 of Attachment # 2

Chairman Skarphol: Can you give us some idea of the entities?

Dr. Hauck: He provided individual examples such as Agents in Training.

Chairman Skarphol: What are the numbers?

Dr. Hauck: In response he continued with the budget testimony, see Attachment # 2, pp. 7-8 and 9-11.
Recording lapse 20:16

Chairman Skarphol: In what way?

Dr. Hauk: Row crops

Chairman Skarphol: They will use grant funds in other ways, does that include grant funding more positions?

Dr. Hauck: There is more seasonal work.

Chairman Skarphol: Grant funds come from where?

Dr. Hauck: From commodity groups.

Rep. Williams: You are talking about $450,000 a year. Is that somewhat close to the grants that you have now?

Dr. Hauck: The grants are actually greater than that because they don't use all of their grants to support their technical staff. About 30% of the total funding comes from grants.

Rep. Williams: You are not losing the grants, it is basically an enhancement of the grants.

Dr. Hauck: Yes.

Rep. Monson: There are no new FTEs that would be full time? They would be students or part time summer help.

Dr. Hauck: No new FTE because we already have hires using soft funds.

Rep. Monson: You would be switching some of their roles for those full time FTEs?

Dr. Hauck: We hope to continue with the grants to expand the program, costs, and summer help. Continuing on p. 9-11, 2a-2b, itemizing the details of requests as ranked. $830,000 is needed to implement the program, base funding is lacking.

Chairman Skarphol: Dollars for educational issues, give us a list so we can bring the similar programs together.

Rep. Monson: Which educational commission, the Governor's commission on school improvement?

Dr. Hauck: The Governor's Commission on Education. He continued with the explanation of the education initiative, including cooperative education, family education and nutrition programs. He continued with Capital Requests pp. 85-88 of Attachment # 2.
The building of a new facility at the 4H camp, including lodging and dining are $3.8M, is in the plan. Some funds would be raised. Replacement of equipment, interactive video at 20 sites is requested and $50,000 to take the Land Ag valuation tax model and convert it into more modern software. Finally, the Soil Conservation Committee requests $150,000 for the district Technician Grants Program, it was recommended at $50,000.

Rep. Williams: You mentioned the last one being recommended at $50,000, how about the first three that you mentioned?

Dr. Hauk: None were included in the Executive budget recommendation.

Chairman Skarphol: None of the capital improvements were. **Addressing Sara Chamberlin, Legislative Council Representative**: On the interactive video site, would you contact ITD and ask if anything is going on in state government with regard to that issue and whether or not the timing is right for that.

Rep. Hawken: The soil survey, several counties did not get it done.

Dr. Hauck: It is a valuable resource that is used in a variety of ways: to identify soils vulnerable to saline problems.

Rep. Hawken: Is it the same, do they interact?

Dr. Hauck: They are not the same but interact a lot. The state soil survey is a project led by the State Soil Conservation community.

Chairman Skarphol: We were told it has not been completed in some counties.

Rep. Monson: Is this what the counties would be expected to do?

Dr. Hauck: We would take an extension effort and turn it into a state wide effort.

Rep. Monson: If they would not have anything to do with the taxable valuation of the counties .....

Dr. Hauck: The land tax model takes into consideration the soil qualities.

Chairman Skarphol: This one addresses the property tax issue as compared to the soil condition model. The comparison is very minimal. How much public use is there of this particular system? I understand the Lotis 1,2,3 issue.

Dr. Hauck: The county auditors are the ones that receive the read-out from this software the model provides. Then it turned over to the township.

Chairman Skarphol: They are informed as to the valuation done with this system, the changes in valuation in the counties, but that is sent out from this entity. How much use is there of this, I understand that there is a need to update from the current....What about interaction?

Dr. Hauck: The extension specialists have gone out and conducted programs on how the model works and have offered input to the legislature. One issue is that the ag statistics data is not as readily available in some counties because of the crop shift that has taken place. Agents will come out and talk about this.

Chairman Skarphol: On p. 7, The State Board of Agricultural Research and Education (SBARE) ranking. Can you tell us which ones were included with this in the Governor's budget?

Dr. Hauck: 1,2A and 2B. Two individuals that I would like to share a little bit of time with. They have testimony.

Andy Johnson, County Agent for Steele County: Written testimony available, See Attachment #. He spoke in favor of the agent training program. I have full time support of full time agents. My main responsibility is to.....

Carter Tomak of Mandan, North Dakota a 4 H Member: Requests support for HB 1020 that provides funding for 4H and building of the new facility. See testimony, Attachment #

Chairman Skarphol: You are an impressive young man.

Rep. Monson: Survival camp should be rustic. I think we should leave it the way it is. Laughter I would not be sitting in this chair had it not been for 4 H.

Chairman Skarphol: A quick question on the 4 H facility, you are asking us for nearly $M. Expected utilization, in terms of 100 people, 365 days a year, that is 3500 opportunities, what kind of utilization do you expect of this facility.

Dr. Hauk: We have done some survey work and looked at the programs that we undertake ourselves as an extension service. It gets requests for use by family reunion groups but it is usually a weekend only use during the summer. We would anticipate having activity there about of the days over the course of a year. They would be youth related but our survey shows that other state agencies would find a retreat center in a location like this.

Chairman Skarphol: Where do I find your specific numbers?

Dr. Hauk: In the back of the book on p. 91.

Chairman Skarphol: Briefly explain budget initiatives on that page.

Dr. Hauk: Explains itemized requests, new initiatives are at the bottom of p. 91.

Chairman Skarphol: Why does that say NCI?

Dr Hauck: NCI is shown in column # 4, the numbers are listed there as well.

Chairman Skarphol: SBARE includes main research....

Dr. Hauck: SBARE includes the main research center and the research extension station.

Rep. Monson: You were explaining the extended use of the facility at Washburn if it was built. Would that provide revenue?

Dr. Hauk: It would be self generating. It would accommodate about 75 people at one time. We would have full time maintenance. The costs would be very much associated with state rates in terms of using the facility. Our estimates showed it should pay for itself.

Rep. Monson: No more added costs, just one time funding and we would not have to increase any budgets down the road. The revenue would balance out the added costs.

Dr. Hauck: That is correct.

Dr. Ken Grafton, Dean and Director of the North Dakota Agriculture Experiment Station: Brevity is the sign of confidence. Attachment # 2 p. 25, on p. 31 the funding is listed. Continues with p. 32, none eligible funds and further detail are listed on pp 33-38 listed as summaries.
Continuing on p. 39, soil productivity and pointing out the staff reductions in that area of research.

Chairman Skarphol: The details on p. 39, there are 9 FTE.
What will happen with those FTE when they are no longer needed?

Dr. Grafton: This problem will not go away.

Chairman Skarphol: FTEs are always an issue

Dr. Grafton: We only ask for what is necessary.

Chairman Skarphol: On that same page, you identified 5 FTE at the main research station and 10 FTE graduate research assistant stipends. In terms of real FTE, what would that amount to?

Dr. Grafton: We identify these as half time positions. And there would be 20 students. It is a pool of funds that would be available to support the graduate student employees. Preference is given to North Dakota students.

Rep. Monson: When you add these GTEs are they eligible for fringe benefits?

Dr. Grafton: They would not receive fringe benefits that state employees get.

The ½ time FTEs would be office support staff positions that were eliminated in the 2003-2005 biennium because of a budget problem. The researchers could focus on their research as opposed to doing clerical work.

Chairman Skarphol: Would you go back to the '99 session and supply us with a brief spread sheet and supply us with your personnel counts?

Dr. Grafton: Yes. Continuing with testimony on p. 40-41 of Attachment # 2.
P. 42 delineates the items proposed by SBARE, emphasizing items # 7 and 9. Locating a plant pathologist in Western North Dakota would be very beneficial to the growers in that region. On p. 42 are listed items requested by SBARE.
On pp. 43-46 are listed the 2009-11 impacts. The Extension Service budgets begin on p. 47-48.

Chairman Skarphol: Who is the customer of that data information?

Dr. Grafton: There are state agencies, local government ....

Chairman Skarphol: Primarily some level of government as opposed to the private sector. The canola grower or scientist, when does the state take responsibility for a commodity? Why should we get into that?

Dr. Grafton: We have about 17M acres of canola in Canada. Most of the breeding efforts are in Canada. We grow 90% of the canola in the country it is well over 1M acres we are relying on varieties that are bred for Canada. Because of testing done in Canada, they may not be...

Chairman Skarphol: Are they government funded or private?

Dr. Grafton: Both.

Chairman Skarphol: Give me some idea of the distribution.

Dr. Grafton: There are two programs, one in Manitoba and one in Saskatchewan. They are not competing with the private sector

Chairman Skarphol: Why should we get into the canola breeding business?

Dr. Grafton: We are not competing with private industry, it would be complimentary to private industry. Similar to the corn breeding industry that we have going on in the state.

Chairman Skarphol: In the last election there was talk of not growing government.

Rep. Monson: How many other breeders do we have in the state now?

Dr. Grafton: There are 12 breeding programs at NDSU.

Chairman Skarphol: In what areas?

Dr. Grafton: Hard red spring wheat, durum, flax, barley, oats, potato, dry edible beans, soy bean, corn and pulse crops.

Rep. Monson: It sound like the only one we don't have is canola.

Dr. Grafton: We grow 43 different crops in the state but we do have breeding programs, efforts on very important commodities. Beginning on pp. 47-49 and turning to p. 81 of attachment # 2, the green house complex, the agronomy laboratories and seed conditioning plants. The current facilities are not adequate for today's agriculture.

Rep. Monson: Are these seed condition plants portable?

Dr. Grafton: Permanent.

Rep. Monson: Going back to p. 40, on # 4. There are a lot of FTEs in here. Those 11 for $1.32M, touch on that a little more.

Dr. Grafton: These are technical support staff that work with the scientists to be more efficient and to allow for greater output. We have individuals are not on permanent status and are on general funds. We could lose those individuals because it is not a permanent situation. We could use grant funds to better maximize other research activities.

Rep. Monson: These would not be part time but full time positions with fringes, if we did fund, you could get grant money to fund these positions in the future?

Dr. Grafton: Some are already on grant as the North Dakota Wheat Commission or the Soy Bean Council..

Chairman Skarphol: Get us more information on grant funded.....

Dr. Grafton: There are only two faculty positions out of those that were requested where there is not a technician.

Chairman Skarphol: He called on anyone who wishes to comment.

Chris Schauer, Hettinger Research Extension Center: Provided testimony in support of HB 1020 See Attachment # 5.

Jerald W. Bergman Williston Research Extension Center (WREC): Provided testimony in support of HB 1020 See Attachment # 6.

Randy Mehlhoff, Director of the NDSU Langdon Research Extension Center: Provided testimony in support of HB 1020 See attachment # 7, emphasizing priority # 4 p. 40 of Attachment # 2.

Chairman Skarphol: Comment briefly on your geo thermal project.

Mehlhoff: We have saved about $700 in one month. The previous bill was about $2,040 and this one was $1,250.

Blaine Schatz, Carrington Research Extension Center: No written testimony provided. He spoke in favor of the Agronomy Research Labs. See Handout #s 1 and 2

Chairman Skarphol: Who is your competition for grant dollars?

Schatz: Other regions of the country, especially the North Central Region. Our grant dollars are derived from Federal resources. We also pursue grant dollars from other commodity organizations as those represented here, for example, the University of Minnesota, Montana State and so forth.

Chairman Skarphol: What kind of success rate do you have in these grant applications?

Schatz: It varies greatly depending on the grant and our success rate is probably no more than 20%. In other areas it can be as high as 80%. It takes a lot of time to pursue these grants and takes away from getting reports to our producers.

Monson: Are you seeing let up in the amounts of grants because of our economy?

Schatz: There are fewer opportunities for grant dollars; we are concerned about the availability about those dollars.

Rep. Hawken: When you look at new programs, what about the old programs. Are some dollars freed up because things change?

Schatz: We have addressed issues, our programs are very general. We are working on 30-40 different crops. There is not one specific topic at the centers.

Rep Hawken: What is the buy in from the local farmers?

Dr. Grafton: We have a great buy in. Examples are, the Soy Bean Council has funded research tremendously as has the Corn Utilization Council, there is a lot of buy-in. Projects coming and going, ee have an internal program for evaluating projects on a 5 year basis demanded by the Department of Agriculture. There is constant evaluation of our projects. When a vacancy comes available we redirect personnel based on need.

Rep. Hawken: Farmers support you through their commodity groups.

Dr. Grafton: Yes.

Ryan Brooks, Pulse growers: Spoke in favor of programs that get equipment, positions and spoke in favor of priority #4, a plant breeder is a needed position.

Mark Birdsall, Berthold area Producer: No printed testimony offered, spoke in favor of HB 1020, Priority # 4, especially the updating of equipment..

Chairman Skarphol: Asks for brevity.

Allan Tellman, North Dakota Ag Coalition: Provided Testimony, see Attachment # 8.

Ryan Pederson, Northern Canola Growers Association: Provided Testimony, see Attachment # 9.

Chairman Skarphol: Addressing Dr. Grafton. What kind of information is available? I visited Carrington, is there storage for the equipment, what is the dollar value of the equipment? Can it be stored indoors.

Roger Zetocha, Chairman of the North Dakota State Soil conservation Area: Provided Testimony, See Attachment # 10.

Hearing adjourned until after Floor Session.

Hearing called back to order (New Job # 13378)

Julie Ellingson, Stockman's Association: Provided Testimony, see Attachment # 11, in favor of HB 1020 emphasizing Soil Productivity and Land Management and Animal Stewardship.

Chairman Skarphol: Is there an animal welfare bill in the system?

Ellingson: There was but it has been pulled.

Sandy Clark, North Dakota Farm Bureau: No printed testimony provided, She spoke in support of HB 1020 but the Farm Bureau is opposed to the project of the 4H building.

Neil Fischer, Commissioner of the North Dakota Wheat Commission: Support of HB 1020. Yields of wheat have gone up. Water quality and soil water compatability are high priorities.

Dan Wogsland, Director of the Grain Growers Association: Testimony provided. See Attachment #

(Recording Failure to the end of testimony)

Terry....., Representing counties: Supports HB 1020.

Scott Rising, Soybean Growers: Provided written Testimony, See attachment 13.

LeAnne Harner, Representing Soil Conservation: No prepared testimony. Spoke in favor of the soil health initiative. (Recording Failure ending)

Milton Lindvig, North Dakota Irrigation Association: Provided written testimony, Attachment # 14 on behalf of Robert Vivatson.

Chairman Skarphol: We will have some of you back here when we consider the bill. Thank you very much for coming.

Meeting adjourned

2011 HOUSE STANDING COMMITTEE MINUTES

House Appropriations Education and Environment Division
Sakakawea Room, State Capitol

HB 1020
1/31/11
13701

☐ Conference Committee

Committee Clerk Signature Shirley Branning

Explanation or reason for introduction of bill/resolution:

A BILL for an Act to provide an appropriation for defraying the expenses of the extension service, northern crops institute, upper great plains transportation institute, main research center, branch research centers, and agronomy seed farm; to provide for transfers; to provide an exemption; and to declare an emergency as it relates to the Agronomy Seed Farm.

Minutes: You may make reference to "attached testimony."

Chairman Skarphol: Called the Committee to order and asked the clerk to note that everyone is present.

Mr. Timothy Faller, Assistant Director, Agriculture Experiment Station: See testimony from Tom Tyler, Attachment # 1. The request is for the utilization of sale of foundation registered seed and distributed to seedsmen and it is an authorization as they raise the money.

Chairman Skarphol: The change on the green sheet is a change of the $127,000 added in the authorization of other funds for the purchase of equipment. And the other change would amount to $320,930.

Sara Chamberlin, Legislative Council Representative: The change is the compensation adjustment.

Chairman Skarphol: For health insurance, wages, benefits. Any further questions?

Hearing none the hearing on HB 1020 is adjourned.

2011 HOUSE STANDING COMMITTEE MINUTES

House Appropriations Education and Environment Division
Sakakawea Room, State Capitol

HB 1020
2/9/11
14261, 14291

☐ Conference Committee

Committee Clerk Signature Shirley Branning

Explanation or reason for introduction of bill/resolution:

A BILL for an Act to provide an appropriation for defraying the expenses of the extension service, northern crops institute, upper great plains transportation institute, main research center, branch research centers, and agronomy seed farm; to provide for transfers; to provide an exemption; and to declare an emergency

Minutes: You may make reference to "attached testimony."

Chairman Skarphol: The committee will came together to discuss HB1020 budget, noting thst all committee members are present. The process will be to discuss the smaller special funds. Referring first to the Green Sheet on the Agronomy Seed Farm which is all special funds. They have three employees, an increase in their budget of $127,000, to adjust funding for equipment to provide a total of $301,000. They generate the budget they submit.
The Northern Crops Institute is reviewed. It has an increase of $253,000 in general funds, $240,000 for equipment. Addressing **Tammy Dolan, OMB Analyst,** is it for something special, why is it one time or will it be recurring?

Dolan: Generally, they have equipment as part of their budget every biennium. It might be different pieces of equipment that they need.

Chairman Skarphol: They are about half and half general funds and other funds. Salary, is that what general funds are used for primarily?

Dolan: Yes.

Rep. Monson: Referring to the green sheet, section 26 of SB 2020, is that last year's or is it in the Senate right now?

Sara Chamberlin, Legislative Council Representative: That may be an error; it should be HB 1020 in Section 6.

Chairman Skarphol: That refers to all expenditures, whatever the agency may be, asking for confirmation.

Chamberlin: Yes, it would be all of it.

Rep. Dosch: That would increase their base for next time? Requesting a copy of the bill from last time. Will they come in with a level of $1.692M?

Dolan: Yes, if we add into their base budget, we would allow them to ask for that amount.

Rep. Dosch: Since the major portion of this is equipment purchase, is that kept in the base?

Chairman Skarphol: Page 2 of the bill, line 8, there is an adjustment for an enhancement of $253,361. That is the general fund increase reflected on the green sheet. Was that the carry forward from this biennium and is it getting added to what would be the base of $1,439,221 general funds?

Dolan: No. What was approved in the Governor's Budget was switching the funding source for the feed production center manager. This had previously been special fund and going forward we allowed general funds for that position at $199,362.

Chairman Skarphol: It merely shifted it from special funds to general funds. Does the green sheet reflect that shift?

Rep. Dosch: Why would they do that?

Dolan: They explained this in their testimony. They get grants from other entities and in other states. They tend not to allow them to use those for salaries.

Rep. Dosch: This is a tiny department and we are switching over from special funds to general funds. This could affect hundreds of positions.

Dolan: Refers to the organizational chart that breaks out the positions that are not general fund appropriated.

Rep. Dosch: If we compare this to last session, we would have no idea, other than we ask the question and we find this stuff out.

Dolan: I could go into our budget system from last time and the positions and their funding source and we could compare that.

Dr. Ken Grafton, Director North Dakota Agricultural Experiment Station: Northern Crops Institute (NCI) is the entity created in four states, Montana, South Dakota, North Dakota and Minnesota to promote agriculture commodities and marketing of those commodities worldwide. They do get grants from other entities within the state and in other states for the marketing and promotional expenses. Commodity grants do not allow us to pay salaries. Non general fund dollars can come and go because of what grants allow.

Rep. Monson: Your feed production manager was funded in this budget?

Dr. Grafton: That is the NCI feed production manager and was funded by grants a number of years and converted to general fund money last biennium.

Rep. Monson: This was part of the needs based budget of 2011-2013. Feed production manager salary of $199,362 and fringe benefits. This is someone working at your new feed lot?

Dr. Grafton: It is in NCI, there is a feed facility located near the barns on the experiment station. Their responsibility is to identify the use of existing crops and products grown in North Dakota and provide that information to potential growers around the world.
The ag experiment station contracts with them to provide feed for the main station...

Rep. Monson: They work hand in hand.

Chairman Skarphol: I am looking to find funding sources.

Rep. Dosch: The amount of general fund dollars increase is the request for full time positions. There is no increase in FTEs. How can this be changed, how do we know what we are increasing?

Chairman Skarphol: We would have to ask Council to change their bill drafting procedure. They don't reflect special versus general.

Rep. Dosch: I think that is critical to make a format change.

Chairman Skarphol: For Upper Great Plains, most of the funding is federal. Tammy, remind us of how it is utilized.

Dolan: It is for their core administrative expenses. A larger portion of their budget is grant funded under federal funds that they get, their researchers.

Chairman Skarphol: On the green sheet, at the top it refers to the number of FTEs, a total of 1.6 FTEs were removed..... but it is not reflected in the number, the 52.3. It was appropriated based on 53.95..... Did they not hire?

Dolan: The Legislative Assembly did authorize the 53.95 positions, most are federally or special funded. The language in the bill allows them to adjust the number of FTEs and report back to OMB before the budget is prepared.

Chairman Skarphol: So, the 1.65 FTEs were special funded. And the $329,832 is strictly salary and parity?

Dolan: Parity is not a term used with these budgets. A piece relates to the cost to continue salaries.....

Chairman Skarphol: How big a piece?

Dolan: The general fund piece is $18,918. That is the cost to continue piece.

Chairman Skarphol: Trying to find ... What does that amount to in general funds. I am trying to figure out the $329,000. Addressing Chamberlin, Do you have it?

Chamberlin: Refers to Internet Budget and Reporting System (IBARS) the adjustment in the last biennium was $262,000. There was a compensation package adjustment to general funds of $372,000.

Dolan: I need one second to pull a report out of IBARS.

Chamberlin: On the general fund, it is not $372,000, it is $69,000 so there is the $362,000 and then the additional $69,000 from general fund. The total adjustment was $372,000.

Rep. Monson: What is that $262,000?

Chamberlin: Within IBARS to continue the second year of the salary increase.

Rep. Monson: That is just salary?

Chamberlin: Within IBARS there needs to be an adjustment on the salary to continue what was added in the second year of the biennium. So there is a small adjustment.

Chairman Skarphol: That was the $18,918.

Dolan: It is not reflected in IBARS, it is reflected in the amount that we allowed them to ask for from the general fund. It would be part of their pay role number that is in there. The compensation package is $617,756, of that amount $69,239 was from the general fund. The other adjustment that is not reflected on the green sheet is.....They asked for an increase in the general fund to pay for some of their core administrative expenses. That is something that over the last two biennia their legislative assembly has allowed more general funds to cover some those expenses so their employees can focus on their jobs instead of working on grants. This time there was an adjustment of $289,218 from the general fund which was really a funding source. It helps to fund 3 positions, the Communications manager, Web manager and their graphic artist, not fully at 100% but it added more. Referring to the organizational chart that shows the entire staff by funding source, see Attachment #3, 1/25/11.

Chairman Skarphol: The fund that is being asked for. is this to add to the core administrative staff?

Rep. Monson: These are not new positions, now it is going to the general funding source.

Rep. Dosch: The shift from special to general that is where they are getting us.

Chairman Skarphol: If we didn't want to do that shift, would be to take the $289,218.

Dolan: Yes

Rep. Monson: When we shift from special to general funds, does that mean that those special funds go away. Are they getting the same amount or more special funds and when the state takes over the general funds. Does that mean that the special funds are not there or do they switch for those purposes and they do something else with them?

Dolan: It is does not mean that they go away. It means that those individuals can work on the core administrative expenses for the organization, versus diverting their time toward other grant type projects.

Chairman Skarphol: Addressing Dr. Bresciani, President of NDSU, and giving him an opportunity to comment on the utilization of dollars that are freed up. The dollars that are freed up by making this shift should be available for them to do other things out of a total of $24M. I will call Mr. Griffin and we will get the answers.
Moving on to the discussion of the Main Research Center. Addressing Dr. Grafton, your change is $10,367,153. The lion's share of that is the dollars associated with the Green House, $6.99M.

Dr. Grafton: Yes, $2.5M from special fund authority.

Chairman Skarphol: The request is $1.991M out of $10.3M. That is about $3.4M of other general fund. Utilities for the Green house; what would it be if it were not geothermal?

Dr. Grafton: You wouldn't want to know. We did put $1M into the geothermal effort.

Chairman Skarphol: Those came out of the funds that you raised, how much came out of Morton County? $9.95M from people that were really dedicated. Individuals or foundations?

Dr. Grafton: The figures are not on hand. Some was from individuals and some from various groups.

Chairman Skarphol: Most counties were $10,000 to $12,000.

Dr. Grafton: Peter Nygard, with the Development Foundation, did a wonderful job raising those funds.

Chairman Skarphol: The green sheet reflects some general fund appropriation increases. Capital bond payments of $421,609 for what?

Dr. Grafton: Those capital bond payments are from the bonding of the green house in the first phase back in 2005-2007. It was a $2M bonding effort. In addition to that, there was also bonding at the Central Grasslands Research Extension Center and ..

Chairman Skarphol: Most of that green house we paid cash for. Addressing Dolan, asking her to find the specifics on that bond payment.

Dolan: There was also an addition of $57,000 on the Branch Research Centers for the bond payment at the Central Grasslands and the $92,000 for the North Central Center for bond payments.

Chairman Skarphol: Any idea of the time frame when they will be paid off?

Dolan: Asking for time to pull that schedule.

Chairman Skarphol: The green house will be done, so we can anticipate a significant drop in that next time.

Rep. Monson: Will we be looking at more FTEs to fill up this green house or will those already on the payroll?

Dr. Grafton: Our current FTE count will be sufficient; we have redirected some positions such as the Dean of the College and the Director of the Experiment station. One of those redirections was a public information officer to the green house manager, an internal redirection. The impact on my office is for the greater good

Rep. Monson: Will the old green houses be dismantled that are very inefficient so that will be savings on that line?

Dr. Grafton: Yes, some will be eliminated but others are heavily used.

Chairman Skarphol: How much will be coming down?

Dr. Grafton: About 25% of the new coming down.

Dolan: Provides information on the Bond. For the Central Grasslands it was for an office addition, the North Central Research Center it was for the agronomy lab and greenhouse, the main research center was for the greenhouse complex. It was authorized in 2005. The maturity date on that bond series is December 1, 2024.

Chairman Skarphol: We should anticipate making this payment for the next umpteen years.

Dolan: Yes,

Rep. Monson: What kind of interest are we looking at, what cost is associated in the interest over time?

Dolan: That was part of a larger bond payment. Right now the outstanding principle is due on June 30, 2011 $34.5M. That was made up of a number of projects, but there is no data on the specific interest rates.

Chairman Skarphol: The issue is that we couldn't pay them off if we wanted to. Productivity in land management of $470,000, an increase in general fund.

Dr. Grafton: That was priority number 2, for the state board of ag research and education. This is to do with the issues surrounding soil health and land management. It would require three new scientists who will be employed to do research on land fertility issues, multiple land use and other recreational uses.

Chairman Skarphol: 3 FTE?

Dr. Grafton: Those would be three scientists and six technical research specialists. One would be at Hettinger, one at Carrington, one at the main station working with existing faculty in the ag and biosystems engineering department.

Chairman Skarphol: In the State Board of Agricultural Research and Education (SBARE) recommendation the total cost of this is $1.41M general fund and we are only reflecting $470,000 on the green sheet. Tell me where the rest of it is hidden.

Dolan: It is not hidden, it is a part that is at the Branch Centers. Looking at Department 628, the corresponding amounts are on that budget for the entire proposed item.

Dr. Grafton: $940,000 of that $1.4M would be located at the Research Extension Centers at the branch stations.

Chairman Skarphol: Are they delineated individually on the green sheets by center?

Chamberlin: Directing attention to the list of centers on the green sheet.

Chairman Skarphol: Perusing through the items on the green sheet, operations of $9.9M on the green sheet, would that include # 3 in your SBARE?

Dr. Grafton: That would be correct, but in addition there would be some...OMB changed that slightly so that it is the operating for the soil productivity and land management. The number three priority that SBARE ranked was that $1.88M

Chairman Skarphol: They have it at $1.9M, that is a $20,000 difference. In this case we are

Dr. Grafton: We identify them as FTE, they are half time and do not receive benefits. That identification may be a mistake.

Chairman Skarphol: FTEs are an issue with us. If you had to pick and choose would those half time employees have more importance than the full time ones?

Dr: Grafton: I would probably go with the graduate students, they are far more important than the office staff. We can live a little longer without those individuals since we have not had them since 2003.

Chairman Skarphol: There may be more sympathy to give you more money for the graduate students money than the full time money because we are helping students.

Dr. Grafton: Preference is given to North Dakota students.

Rep. Hawken: I have had questions about the data center. Will it go away if we don't do something?

Dr. Grafton: The funding for the state data center is soft funding; the grants are still there to support the state data center. If there is a change in leadership or a greater need called

for, there is not capacity to add positions. We would retain good and qualified people and solidify the entire activity of the center.

Rep. Hawken: It would be helpful to have a list of functions that they do as census work, bus routes, kids count. Are there other?

Dr. Grafton: The list is endless.

Rep. Hawken: The state agencies receive services from them.

Chairman Skarphol: Are they in competition with anyone?

Dr. Grafton: No.

Chairman Skarphol: This request is for two positions to replace one?

Dr. Grafton: No, it is for special funded positions at this time. Converted to general fund.

Chairman Skarphol: What kind of revenue do they generate?

Dr. Grafton: Would have to do some research on it.

Chairman Skarphol: The grant dollars are there because they are contracted with to do work...it is more of a contracting arrangement than a granting arrangement.

Dr. Grafton: Yes, primarily.

Rep. Dosch: In this session we are funding about $53M or $45M in general funds. We are putting in those general fund dollars. Are they not self sufficient?

Dr. Grafton: What is our return on investment? An example is the hard spring wheat research, In the first year that generated $350M of activity.

Rep. Dosch: When you release something like that, who benefits?

Dr. Grafton: One of our responsibilities is to provide a service to the state's economy. When we release a variety, it is released as a non exclusive to the state. The variety goes to various county crop improvement associations across the state. It benefits the local farmer/producer.

Chairman Skarphol: Walk us through the process of how a variety is released? Starting with small amounts of breeder seed.

Dr. Grafton: It takes about 10 years to develop a variety, when a variety becomes a breeder seed, about a bushel, that is increased to a foundation seed.

Chairman Skarphol: The breeder gets a 50 fold increase.

Dr. Grafton: That then gets released to the Research Centers, such as Minot, Williston.

Chairman Skarphol: Without cost.

Dr. Grafton: The potential success once it has been released the foundation seed stocks organization makes that seed available to the Centers.

Chairman Skarphol: The branch stations raise it first.

Dr: Grafton: Yes.

Chairman Skarphol: They increase it beyond what the agronomy seed farm had.

Dr. Grafton: Then it is called registered seed. Branch stations keep that profit as part of their revenue. Then it becomes a self supporting effort. From there it is sold to the farmers.

Chairman Skarphol: The revenue generated at that step, which is the first generation of money being created by what you do.

Dr. Grafton: The branch stations keep those revenues as part of their operations.

Chairman Skarphol: The $350M that Glen Wheat generated in the first year was that step.

Dr. Grafton: When we release a variety it becomes property of the NDSU research station. Those royalty moneys get distributed; 80% goes to the project that developed that variety.

Rep. Williams: How are you affiliated with Pioneer seeds?

Dr. Grafton: We have a number of companies that have indicated an interest in providing products with wheat research.

Rep. Williams: What does a bag of seed wheat cost?

Dr. Grafton: Certified wheat seed is about $12-$15. It is not that expensive.

Rep. Williams: What is corn seed?

Dr. Grafton: Above $200 per acre to seed.

Rep. Monson: The canola breeder is not funded in the Governor's budget. It is a huge item in Northeastern North Dakota.

Dr. Grafton: 95%

Rep. Monson: In my county.

Dr. Grafton: About 70%

Rep. Monson: It takes 10 years to do this and we have never had a canola breeder in North Dakota. Why is there no breeder in North Dakota?

Dr. Grafton: Canola is a relatively new industry in the state. Have a Center of Excellence program in canola and that program has partnered with Monsanto where we leverage their resources to help identify material that improves a good oil variety, increase oil per acre. It is heart healthy and a good biofuel. We rely on producers in Canada to provide varieties for us.

Rep. Monson: You get germ plasmas from the seed companies. How much do they take from this program or do they require some kickback?

Dr. Grafton: We just released a high yielding variety, ND662C, a high yielding open pollinated variety and competes with the hybrids that are out there. Monsanto is requesting that there be a royalty because it is round-up ready but NDSU would retain 50% of the royalty.

Rep. Monson: If we gave you some authority to use special funds such as from that royalty, would that get an FTE to do the canola research?

Chairman Skarphol: Centers of Excellence has six new jobs, is there a breeder?

Dr Grafton: Yes, special funded.

Chairman Skarphol: Is there a need for further funding of a position? Is it performing?

Dr. Grafton: The private industry needs 100 new breeders every year and they are in very short supply. If we don't get funding, we won't have a plant breeder. The entire land grand system across the system is graduating less than 40 per year. A number of companies are literally raiding the Land Grant system for established plant breeders or post doctorates, or even technicians that are highly trained.

Rep. Monson: How many is NDSU turning out?

Dr. Grafton: We have a large contingent, it takes about 3 ½ to four years to generate a PHD, and we generate one to 1 ½ per year.

Rep. Monson: Is there any way that you could see that we could get this plant breeder for the canola industry that wasn't funded without going to special funds?

Dr. Grafton: It would be very difficult with the existing structure that we have. Refering to the State Board of Agricultural Research and Education (SBARE) handout. It is priority # 4

Chairman Skarphol: It would be the $499,000. The purification process, what their perceived needs are? The color sorter is at what level of importance in the purification process? Can it be used in a variety of crops?

Dr. Grafton: We literally looked at each seed. It is a state of the art way of addressing a purification process need.

Chairman Skarphol: Where is the most critical need for that? Is it early in the development stage or the branch stage. They are approximately $140,000.

Dr. Grafton: $150,000 each. Purification, the life span of a variety, is critical at the foundation level. Over time mixtures will occur.

Chairman Skarphol: The one that I saw, in Carrington, had four, six or eight channels.

Dr. Grafton: We do have one imbedded in the hard red spring wheat program.

Chairman Skarphol: Do you have any others out?

Dr. Grafton: The North Central Extension Center. A forty channel.

Rep. Monson: The canola breeder with $490,000, that is for three FTEs. If we were to do the breeder with solid money, general funds, then the technician and the specialist out of special funds. Bare minimum, what would it take to get a breeder?

Dr. Grafton: A PHD level, $210,000 per biennium.

Rep. Dosch: Take another approach, if it is a $100,000 a year job, what is the problem with sending out more PHDs.

Dr: Grafton: It is not a problem, obtaining a PHD is not as simple as applying for a position and going through the process.

Rep. Dosch: We are heavily involved in research at our two research universities. Can the university system push this because we have jobs in North Dakota? It seems that the university is standing back and....

Dr. Grafton: There are more students now; we are trying to work on it. An internship with Monsanto is currently in place, scholarships from .... probably about 40 students in plant breeding, a few years ago there would have been about 10. It is not an easy job but positions in agriculture are more high paying jobs. We have PHDs leaving the state that are getting more than their advisors.

Rep. Dosch: Rep. Monson's interest in the canola, the private sector is making a great profit. We need millions to keep the process running. Why aren't we working with the private sector to develop varieties? Many state entities are self sufficient, at what point in time do you see the university system become self sufficient?

Dr. Grafton: The mission of the Land Grand Institution is to serve the people and the state and not to make a profit. If the Legislature feels that that is our new mission.

Rep. Dosch: It is not to make a big profit but at least cover your cost of operations. To make a change and say we can get reimbursed for the costs will be important in the future.

Dr. Grafton: Staff works hard at seeking funds. Other Federal grants are available that we have not pursued. I believe that we are not charging a reasonable level on royalties. There are opportunities to increase revenues.
The average farmer in North Dakota raises a variety of commodities and provides a check off of $.25 a bushel to help support research, they pay taxes, and they are willing to pay for royalties. The wheat commission has provided over $1M to support wheat research.

Rep. Monson: The checkoff dollars, how much could we depend on the canola growers to provide funding?

Dr. Grafton: They would likely be willing to help with funding in the research effort.

Rep. Martinson: My tax dollars going to the farmers benefits all of us. We are a farm state, the return is for the farmers that benefits all of North Dakota. I am happy with what you are doing down there. You are selling seed all over the world with what you are doing. As far as I am concerned we give you all the money.

Rep. Hawken: The things that are important is the research, they need you and recognize your importance. We haven't had PHDs at NDSU forever, either.

Rep. Monson: Tax payer money built the university and we expect it to function by charging enough so that tax payers don't always have to dip in. We benefit from what research has done and what goes out into the community.

Chairman Skarphol: Land Grant facility, what is the legal responsibility of being a Land Grant facility? The title does imply that you are going to do this as a service.

Dr. Grafton: One of the responsibilities is to serve the region and the state. That is in the Hatch Act for the Experiment Stations.

Chairman Skarphol: Because of the Hatch Act are you prohibited from making a profit?

Dr. Grafton: No, but the Dole Amendment law has given us the opportunity to seek profits. Initiating new situations is sometimes is tricky, as well. We have to take baby steps.

Chairman Skarphol: We don't like "peers" but are your practices similar in nature to what they are doing with regard to generating profits?

Dr. Grafton: "Peers" are literally the Land Grant Institutions in the North Central states. They have similar policies. In Minnesota they are in litigation because of royalties with regard to a new apple variety, by the apple growers in Minnesota for millions of dollars. We have to move these things forward together.

Chairman Skarphol: If the university system could provide a return as you do, because of what you do to provide revenue to the state with the new varieties. Rep. Dosch's frustration with the University system is understood, with its insatiable thrust for dollars. You provide us with a very different service.
You have made us aware of additional requests.

Rep. Monson: You laid it out pretty well, we've got the blueprint that SBARE laid out for us. This is what you are advocating.

Rep. Dosch: I think we can glean the total numbers in each of these areas that we are converting from special to general funds. As far as FTEs.

Chairman Skarphol: Referring to the green sheet for SBAREs for the Branch Research Centers.. . the issue with Dickinson on their declining revenue due to oil. Last time we put $925,000 into that center out of the Permanent oil. Because of the declining revenue they were getting more than they had been previously. I don't see that addressed here.

Dr. Grafton: That was not a SBARE request

Chairman Skarphol: What is the net effect of that on the Dickinson Research Center? Did we give them enough money so they could continue to function?

Dr. Grafton: They were able to use about $1.9M per biennium. In '07 and '09 the legislature provided an extra $925,000 from the oil trust fund to bring that level up to about $1.6M because the oil revenue generated only about $1.1M. In '09-'11 we are projecting about $675,000 for the biennium. It was still about $300,000 lower per biennium than what Dickinson traditionally received from that oil well. The Director of that center said he would need about $800,000 for the biennium to make ends meet. He has a plan to convert some positions to soft money positions, converting some positions to the extension service, some to half-time positions and dismissing others because of the shortfall. They are projecting about $400,000 from the oil well.

Chairman Skarphol: The estimates you have were done in conjunction with Mr. Helms and .....

Rep.Hawken: (No microphone used) We have to figure out some way to fix this..

Chairman Skarphol: At the outset, was the oil well a windfall or if it did result in a reduction of state appropriations to neutralize the effect of the oil revenue.

Dr. Grafton: That predates me in my current role. It was not treated as a windfall it was treated as a way to allow Dickinson to fund its activities. When the move was made from the west side of Dickinson to the Manning Ranch, the plan to purchase that land added an extra cost of operation because the Ranch is about 25 miles away. To carry out research that far away adds additional cost. It was expected that oil revenues would be used for that cost.

Rep. Hawken: Move to add $800,000 from the oil trust fund to the Dickinson Station.

Rep. Martinson: Second

Chairman Skarphol: That gives them the $2M versus the $1.6 last time. It would in reality be a $400,000 reduction on that revenue stream. 118?

Dr. Grafton: Correct.

Rep. Monson: With the price of oil going up and what is going on in the Middle East would the money be more stable?

Chairman Skarphol: More stable if prices go up slowly, the $400,000 is likely to decline. Why was it not included?

Dr. Grafton: My numbers were not accurate.

Dolan: It was not included because it was not asked for. The estimate used in Dickinson was $1.2M for the oil revenue. With their new projections, that being closer to $400,000, if you would approve $800,000 it would make their budget whole.

Chairman Skarphol: They anticipated $1.2M initially.

Dolan: In the way the budget was put together they used the $1.2M. That was the traditional level of funding.

Rep. Dosch: How did the anticipated oil revenue go from $1.2M down to $400,000? They are getting revenue from a specific well.

Rodney Howe, Chairman of SBARE: Do what you gotta do but next time run this through SBARE so you have a permanent dollar flow, or an accurate information flow.

Chairman Skarphol: Why did they not present it as need?

Howe: It was carried through Rep. Wald in the past.

Rep. Monson: How can I fund my canola breeder, are there things in the SBARE budget that have changed? Addressing Howe.

Howe: We finished our budget last March, those needs remain the same. The canola breeder is next. The issue with FTEs, there is a return on investment of $350M, how much income tax and so on is that going to generate? There haven't been new issues such as scab but we can make a legitimate case for the state data center which is ninth on the list of priorities, canola is next on the list.

Rep. Hawken: Are there any other things that need to be brought to our attention?

Dr. Grafton: Your body has the authority to modify and we will work with you.

Chairman Skarphol: In all of these bills, it looks like we have an $8M reduction from last time.

Rep. Monson: Isn't some of this reduction because we ended up reducing one-time spending?

Voice vote carries to put $800,000 from the oil trust fund to the Dickinson Station .

Rep. Monson: We can find $210,000 to fund the canola breeder.

Chairman Skarphol: Refer to SBARE Attachment # 1, p. 40 under # 4
You would like us to hard fund the breeder and $490,000 in special funds for three FTEs. You would like us to hard fund the breeder and give them the flexibility iff the canola growers wanted to contribute some dollars to fund an additional position. You are suggesting the $210,000 from general funds for the breeder and $280,000 in authorization from special funds.

Rep. Monson: So Move.

Rep. Martinson: Second

Rep. Dosch: I think we should make it contingent upon the canola growers being an active, having some skin in the deal. The canola growers should contribute via check off or whatever, contingent on their participation.

Rep. Monson: That is what the $280,000 would be either from the Canola Growers, from Monsanto, royalties on seed. That is over 50% that would come from producers for this program.

Rep. Hawken: Dr. Grafton, how realistic is that?

Dr. Grafton: Yes, it needs based funding, including them in this effort is gets it back into the funds that they need.

Chairman Skarphol: It reflects that you had a reduction of more than 18.13 people in the last biennium. I don't recall that we reduced FTEs. What is the explanation because I don't recall reducing FTEs.

Dr. Grafton: We cleaned up those bodies that were not required.

Chairman Skarphol: I wanted that on the record. I like it when people clean things up for us.

Rep. Hawken: What would happen if we split the difference on the data center so you could see if it would work?

Chairman Skarphol: If you go 1-2 FTEs what would be the difference?

Dr. Grafton: These are research positions and are critically important to the functioning of the center.

Chairman Skarphol: Are they at risk of going away because of the declining grant or contracts that they have?

Dr. Grafton: The director would potentially be retiring. It takes a new person who comes on board a few years to gain the respect and recognition to get the grants and contracts to

their respective programs. To have support on even one of these positions would be important for that new person to transition into.

Chairman Skarphol: It would be a funding change.

Rep. Hawken: It is a different kind of piece of research than a canola breeder.

Dr. Grafton: Agreeing that it is a very unique piece it is more of the hard science, the data center is the social science. They are not evaluated in the same manner by SBARE.

Chairman Skarphol: What is the total cost of the data center?

Rep. Hawken: About $471,000 all money and general fund money is $183,000..

Dr Grafton: Dr. Rathke is employed 51% in the data center and the rest of his time is in the sociology department at NDSU. A portion is soft money.

Chairman Skarphol: He is the only one who is partially funded through the experiment station through general funds and the Arts and Sciences is general funded as well. Addressing Dolan, was there a reduction there last time?

Dolan: That reports was prepared by Legislative Council this summer.

Chamberlin: Not sure that report that is referenced.

Dr. Grafton: Dr. Rathke came to the Research and Extension Station and requested additional funding and both provided funding of approximately $40,000 each in other moneys that were available. The University also provided $40,000. None was available from us last year but the extension service did provide some funding for the second year.

Rep. Hawken: What happens if it goes away?

Dr. Grafton: There are federal requirements, so it cannot go away.

Rep. Hawken: NDSU provides the housing.

Dr. Grafton: That is correct.

Chamberlin: The funding that is provided is for salaries only for 3.53 FTE. The total for the 2007-'09 biennium for salary and benefits relating to the state data center was $471,651. Of general fund it was $183,669. In the 2009-'11 biennium through June of 2010 was $283,943. And from the general fund it was $60,995.

Rep. Hawken: Motion to fund $125,000 for one FTE.

Rep. Monson: Second
Continuing with a question that the $250,000 would fund two people.

Voice Vote: Motion carried. 5-1-0, Rep. Dosch: No.

Rep. Monson: The seed cleaning, I am not finding that in this book.

Dr. Grafton: It begins on p. 81 of Attachment # 1, Capital Improvements and seed conditioning is on p. 82.

Chairman Skarphol: Is any of that in the Governor's budget?

Dr Grafton: No. The only thing in the Capital improvements is the greenhouse.

Chairman Skarphol: I am not willing to support $3M for a facility.

Rep. Monson: Cheaper portable units that could be moved around has been discussed.

Chairman Skarphol: They cost in the range of $650,000 to $700,000 per portable unit.

Dr. Grafton: Tom Tiegen indicated that portable seed conditioning plant would cost about $615,000 with a generator attached to it. It could handle specialty corps as well as cereal grains.

Chairman Skarphol: The specialty crop unit is different.

Dr. Grafton: Newer units can handle more varieties with conveyers, elevators, which are more gentle than augers.

Chairman Skarphol: This was # 3 in the Capital improvements projects for SBARE, Was there a prioritization for what would be looked at first?

Dr. Grafton: That internal prioritization did exist, it was North Central, Carrington, Williston and Langdon. The seed conditioning plant at Williston is so old we can't get parts for it. Those fixed units may not be necessary.

Chairman Skarphol: If we did a portable unit, what would be the possibility of making optimum use of that? What would be the cost of utilizing it at the various units.

Dr. Grafton: The transportation cost would be there.

Chairman Skarphol: Not so concerned with the transportation cost but even as facilities and location and how to get the most use out of it year round, does become an issue because of the lack of space at existing facilities. Need more information.

Dr. Grafton: The best way to use a portable seed cleaning plant is to have it housed in an unheated shed so it can be used effectively by keeping it out of inclimate weather.

Chairman Skarphol: Substantial ventilation would have to be provided. Provide us with more information on the utilization. Get the capital expenditures out of the way.

Rep. Monson: Does the census bureau fund anything or is this an unfunded mandate from the feds?

Dr. Grafton: It is an unfunded mandate but they do provide contractual work that is required.

Chairman Skarphol: About $30,000 in federal funds go into that. We need more information and will conclude until we get more information.

Resume: Job # 14291

Chairman Skarphol: Rep. Monson made a motion and Rep. Martinson seconded, that we did not act upon to appropriate $210,000 for the breeder out of general funds and $280,000 in budget authority for two additional FTEs funded from special funds.

Voice Vote: Motion carried on

Chairman Skarphol: Anything else on this particular budget?

Rep. Martinson: What is happening with anything in the Senate?

Chairman Skarphol: Minot wants a seed cleaning facility for $3M, and I am not willing to go there.
Addressing Dr Grafton, Last biennium did we not budget some money for capital projects for additions to some of the centers for labs?

Dr. Grafton: (He did not approach the podium) $1.68M at Williston, research $624,000 for Geothermal Langdon $200,000.....

Chairman Skarphol: Which centers have received the appropriation for that lab?

Grafton: (Did not approach the podium) Northern extension and .....

Chairman Skarphol: The only one in the Governor's budget is the greenhouse, additions at four different centers. With regard to size or volume of crops, Carrington is the largest facility. What is second, Minot?

Dr. Grafton: Minot, Carrington has by far the largest agronomy program of all the research centers.

Chairman Skarphol: I did go by Carrington and it is not very scientific. If this were to be given some consideration what would be the size of the facility?

Dr. Grafton: Essentially the same size as the Central Research center. Very well laid out and is a separate facility. We could use the same blue prints for the facility at Carrington.

Chairman Skarphol: Did we fully fund the one at Minot?

Dr. Grafton: There was fund raising effort and special funds. It was about a $2.4M facility and the fund raising effort raised approximately $900,000 to $1M. They did an excellent job of raising money.

Chairman Skarphol: I don't want to go the whole $2.25M on Carrington but they could use a better facility.

Rep. Dosch: Why do you need the facility in Carrington, why is it different?

Dr. Grafton: Over the years the ag experiment station consists of the main station that is located at Fargo and seven research extension centers that were placed over time at strategic areas across the state. The two oldest ones are at Langdon and Hettinger, followed by Dickinson, Williston, Minot, Carrington and Center Grass Lands at Streeter. Your predecessors were instrumental in setting these up, to carry out specialized research for that part of the state. Carrington was established in 1960. It is both a wet land and a dry land center and grows all of the crops that are grown in the state. It has an irrigated research capacity. There is a beef research center there as well, a feed lot program as well as a dry lot feed program. It is important to our plant pathology program. It tries to minimize the danger that farmers face by various diseases. A new laboratory there would provide 21st Century Agriculture research. It is modified to meet the needs of an agronomy lab, a potato storage warehouse is out dated as a lab with substandard ventilation and storage facilities. To achieve their effort they have to work outside. The Hettinger Research Center also has an agronomy program that uses a granary with no running water or ventelation. Our state employees deserve better working facilities than that.

Rep. Martinson: Could any of the seven be phased out?

Dr. Grafton: There is some degree of overlap. We can do anything the Legislature requests us to do.

Rep. Martinson: Do we have seven that are so so, or four that are state of the art?

Dr. Grafton: We need state of the art facilities so that people can do their work. If some were closed down that would be a joint decision.

Rep. Monson: We had the opportunity to do that. The Streeter station was in terrible shape and we elected to put capital into that. They all have their niche

Chairman Skarphol: The all have their specialty. The research is to show farmers how to do things properly and what varieties are showing the most promise and to educate them in a reasonable fashion.

Dr. Grafton: We used to have one field day at each of the stations. Now they are very specific, including bio fuels and have modified their efforts and attendance has increased. All the livestock centers also have field days, winter and summer. Attendance is increased in the specifically focused field days.

Chairman Skarphol: Directing the discussion to Extension. On the green sheet, addressing Tammy, technical salaried support, soil health and land management $690,000 with compliments in the research budget for $490,000. $250,000 for livestock stewardship that is also complimentary. But the counterpart is not in Main Research. Why would we fund some of and not all of it?

Dr. Grafton: The main issue at this point in time is to be proactive in working with our livestock organizations. The concerns with the welfare of domestic livestock and to place those livestock production would hamper our livestock industries in the state. The Extension Service is looking for a way to provide information that would be obtained from NDSU and across the country on how best to be proactive on these situations.

Chairman Skarphol: In the soil enhancing portion on the green sheet, there are three FTEs associated with that. One at the Main, Langdon, and Minot. The $690,000. There are two..... and two in Main Research, are they complimentary? Technical salary support under extension for $450,000. What is that $450,000?

Dolan: To support existing positions that are currently funded with commodity group dollars. They fluctuate a lot. It would provide firm funding for those positions.

Chairman Skarphol: Why should we do that?

Dr. Grafton: I would rather let Mr. Howe talk about that but by moving the positions from special funds to general fund it would provide some continuity. It gives people a chance to establish a life in the community. It gives the researchers an opportunity to utilize those funds. If we are putting money into research programs, the commodity groups extend moneys for operating and small equipment for a program.

Chairman Skarphol: Where is the commensurate reduction in operating from general funds. They are getting operating money to pay their employees, where will there be reductions or will we just see increased costs?

Dr. Grafton: There would be no general fund increase in operating. That would be exclusively special funds.

Chairman Skarphol: If the commodity group dollars that are currently funded and the positions are going to be used for operating, that will make additional operating dollars available.

Dr. Grafton: The program would be enhanced. Now it is not being pushed forward as much as it might be. Some of the activities of these specialists would be to assist in demonstration type activities by the extension specialists and it takes time to get them started.

Chairman Skarphol: They would be available the various Research Centers across the state. It is the intent that they will travel.

Rep. Monson: No FTEs are needed, but they moved some of the summer help around for technical support, the $450,000.

Chairman Skarphol: The # 1 under Extension.

Rep. Monson: How is it infrastructure when it is people?

Rep. Williams: Point #2 on the Executive Budget highlights on the green sheet, $830,000 for gearing up kindergarten program. Is it a new program?

Rep. Hawken: It has never been funded.

Chairman Skarphol: Why is it under here?

Rep. Hawken: It is part of extension service. It works with families, and would have been the home ec part. They do an amazing job with no cash. This is where I would have got the $25,000 from Sen. Bowman, it turned into $350,000. There are eight regions with a lot of volunteers to be sure the programs get presented. They operate mainly on grants. It is one of the early pieces prior to kindergarten.

Chairman Skarphol: What is the difference between this and Head Start?.

Rep. Hawken: Head Start is mainly in larger cities and is limited by your income. Mr. Hauck differentiates between this and Head Start because this involves the parents.

Chairman Skarphol: I don't doubt it has its successes.

Rep. Dosch: How many programs are there? Under livestock stewardship we need to spend $250,000. We need programs to protect animal rights. Are we serious or we not about stopping some of this stuff?

Rod Howe from Hettinger and Chairman of SBARE: PETA, the Humane Society Sierra Clubs have introduced proposals in Florida, California, Ohio, Michigan, Oregon to dictate how the animals how our livestock are handled. The Humane Society has over $100M a year in revenue to do this. There was a proposal to eliminate all cattle from federal grazing lands. The intent here is to see that animals are handled in an humane and proper method that the producers are taught to do. This funding keeps it real to our local; it keeps the outside interest groups from developing false information. It brings it out to the legislators for animal welfare laws.

Rep. Dosch: We have been agricultural since statehood, now we need to tell farmers how to protect their animals.

Howe: They know how to treat their cattle; it is in their best interests. It is to protect them against the outside groups that give out false information.

Rep. Monson: Does any of this end up in the schools to counteract with our kids. School children can be given propaganda.

Howe: Through the extension service and 4 H it is given to the youth.

Chairman Skarphol: Would be the finished product of these dollars? What would the publicity be?

Howe: The work of Dr. Temple Grandon's awarding winning type stuff. It is to bring the latest resources in on livestock handling. . Research has been done to demonstrate and provide good information on the value of livestock on the land.
The research would do some also but it is further down the list. If we don't, agriculture, as we know it, will change. In Hettinger, he has gone in and found out that the cattle on the land properly managed, their waste attracts the insects, attracts the pheasants and all of that keeps the livestock on the land. The good information and the good research keeps them there. On the game initiative, the game hunting, was partially propaganda. There needs to be good information and good techniques

Chairman Skarphol: In Ohio, how was that a threat?

Dr. Grafton: What Mr. Howe described is real. There groups across the US particularly the PETA groups that have gone in and changed the laws in a way farmers and ranchers handle livestock that is not beneficial to the livestock industry in their respective states. There is an agreement between the Humane Society and the Legislature of Ohio which according to the cattle producers they indicated that that agreement would devastate the cattle industry in Ohio. Even though we have been a cattle producing state since its inception, society dictates how we deal with animals and our livestock. It is important that we have the appropriate information out to farmers, ranchers and citizens of the state, including this body, that what we are doing is humane for livestock production and it is important for the industry as well as to our consumers.

Chairman Skarphol: You said that within 60 days it was perceived that it would devastate the industry.

Dr. Grafton: The Ohio legislature indicated that they would not succumb to the wishes of the Humane Society of the United States. Within 60 days there was an agreement.

Chairman Skarphol: Between whom?

Dr. Grafton: Between the Humane Society of the United States and the legislature of Ohio. Otherwise there was going to be devastating effect to the cattle producers.

Chairman Skarphol: What is the status of that situation now?

Dr. Grafton: I do not know.

Chairman Skarphol: What you envision this money doing is to give us scientific evidence that would put ourselves in a defensible position.
The only capital fund we have agreed upon is the Greenhouse. The cost of those two projects is $3.850M if we are to do them both. The spending authority to go the full amount could result in
Raising the money to do those two labs and he thought they could do that.
Are we being too generous.

Dr. Grafton: When the North Central Research Extension Center it was completely a fund raising project, no general fund money was associated with it. As they started reaching their goal, they used a different plan than what they had initially. The North Central Region

has a fairly large population base compared to Carrington and Hettinger. It might be more difficult for those smaller regions to raise the funding needed.

Rep. Martinson: I have never been a fan of matching funds. If we think this is a good state project and it is a good investment, then we should do it.

Rep. Hawken: The Minot Facility was awful before it was fixed. For the kind of work that they do, it should be fixed.

Chairman Skarphol: It is not a good time to fund $2.25M for an age facility in Carrington. Any place in this whole thing to find any money to help alleviate that cost.

Rep. Martinson: We have a $1B surplus, when would be time to ask for it?

Rep. Monson: When do we have to have this out of here?

Chairman Skarphol: All appropriations have to be out of subcommittee by next Tuesday.

Rep. Monson: Why don't we sleep on it?

Chairman Skarphol: I agree, we need to sleep on it. The Extension fund increase is $3.6M. How much is one time?

Rep. Williams: If we put it in, hypothetically, would they (the Senate Appropriations) take it out? Can we let it lay?

Chairman Skarphol: Addressing Chamberlin, help me get a better handle on the funding change because it is fairly significant to mover from $2.8M other funds to $3.6M? There is an FTE number that has dropped from '07-'09 to '09-'11. I assume that is from unfilled vacant.
There are about $2M reflected in numbers I and 2, referring to the green sheet.. That would leave about $1.4 that I am not seeing on the green sheet. Is that under number 3?

Dolan: As far as the money that went into the Extension budget, that Agency 630, the SBARE priorities that were funded were a total of almost $1.4M. That is the infrastructure technical support, soil health management and livestock stewardship. There was a $50,000 increase in soil conservation committee grants. The Gearing up for kindergarten was another $830,000. In addition to that, $1.39M is the total of the infrastructure technical support. It is all three of the priorities that were added in. The compensation package, which is the salary increases, insurance and those types of issues added $1.5M from the general fund to the Extension budget.

Chairman Skarphol: Addressing Chamberlin, why aren't we showing that increase on the green sheet?

Chamberlin: Not sure.

Chairman Skarphol: Does that get reflected in the budget under the Extension Service?

Dolan: Yes it does.

Chairman Skarphol: On the front page of the budget. What has happened on the income side to result in the reduction of that $2.8M?

Dolan: We may have to get into more specific funds that were involved. Typically that is just the availability of special funds or federal funds. It must have a decrease in either one.

Chairman Skarphol: Was there a capital project in their budget last time but none that I can recall.

Dolan: Not in Extension.

Chairman Skarphol: We need to know that. Somebody has to carry this to the floor.

Dolan: Specific funds that were involved

Chairman Skarphol: Capital project that is involved? We need to know what revenue stream caused the $2.8M reduction in revenue how did that come about? It necessitates the increase in general funds to do some of the things here.

Dr. Grafton: On p 92, annual reduction of our formula funds, this is the annual reduction of our federal formula funds of our extension service and the experiment station through the Hatch Act and the MacIntyre Stenas federal formula funds, there is a reduction that is anticipated so this would be the biennial number of that reduction.

Chairman Skarphol: This is an anticipated reduction.

Dr. Grafton: In federal formula funding that we receive through what is now the National Institute of Food and Agriculture. It used to be the Cooperative States Research Education and Extension Program.

Rep. Williams: The $2.8M on p. 92 of Attachment # 1, is that just federal funds or some matching general fund?

Dr. Grafton: A portion of that may be the retirement rate correction that is also identified in those columns above.

Rep. Monson: What does that mean?

Dolan: There was an incorrect rate that was in the IBARE system when the budgets were submitted that dealt with the retirement rates used by the higher ed retirement rates. We realized it after they had already submitted their budgets and made correction made before the recommendation. It lowered the budget because it didn't need that much for retirement.

Chairman Skarphol: Are we going to anticipate a reduction, will we add that back in into general fund? Or are you reducing your workload?

Dr. Grafton: Those are other funds, I do not know that.

Chairman Skarphol: If you give up $3.8M in federal dollars that has to have an effect on your operation. Will you have to reduce positions?

Dr. Grafton: Yes.

Chairman Skarphol: The dollars that extension receives it would be a reduction in their budget. Are there people attached to that or is there a different utilization of the federal dollars in their case?

Dr. Grafton: There is a similar utilization in terms of dollars associated with salaries but also operating.

Chairman Skarphol: Do you have more information on what that translates into.

Dr. Grafton: I will have that information to you in the morning.

Chairman Skarphol: I would think you would have to have some reductions commensurate with that.

Rep. Monson: In 2007-2009 on p. 92 of Attachment # 1, there is a reduction here in the base of $2.911M because of other fund carry over. Did you or do you anticipate any other funds carried over in '09-'11.

Dr. Grafton: We always have the opportunity to carry over and I anticipate some carry over in grants and other.

Chairman Skarphol: On the general fund side, you are reflecting during that same time frame $5.7M. That is to complete the work on the green house assigned by getting the grant.

Dr. Grafton: And the other capital improvement projects.

Chairman Skarphol: We have to break and if we have questions we will call.

Meeting adjourned.

2011 HOUSE STANDING COMMITTEE MINUTES

House Appropriations Education and Environment Division
Sakakawea Room, State Capitol

HB 1020
2/10/11
14312

☐ Conference Committee

Committee Clerk Signature Shirley Banning

Explanation or reason for introduction of bill/resolution:

A BILL for an Act to provide an appropriation for defraying the expenses of the extension service, northern crops institute, upper great plains transportation institute, main research center, branch research centers, and agronomy seed farm; to provide for transfers; to provide an exemption; and to declare an emergency.

Minutes: You may make reference to "attached testimony."

Chairman Skarphol: The Committee was brought to order to discuss HB 1020. We had planned to call Gene Griffith but he is in Washington, DC. I have his cell phone number if we have questions. If there are any changes, I recommend that we do it in full committee. The question we had was the general fund investment, what it entails and whether we were told is for the core staffing paying for Mr Griffith's salary and administrative positions so they don't have to spend all of their time doing grant work. Addressing **Tammy Dolan, OMB Analyst.**

Dolan: Yes, they would be able to use their time focusing on running the organization and allow the grant people to focus on the grants.

Chairman Skarphol: Northern Crops, were there issues that we still have not attended to? The $253 in general fund. Moving one position from special to general funded. We did pass the motion on the oil revenue for Dickinson.

Sara Chamberlin, Legislative Council Representative, distributed Attachment # 1, A Listing of Proposed Changes to HB 1020.

Chairman Skarphol: Requesting that Dolan discuss the response from Dr. Grafton regarding the decline in Federal Revenue

Dolan: The positions... On p. 92 of the SBARE Manual, see Attachment # 2. We've seen that there are a lot of other changes of estimated income and for the Extension Office that was about $3M and the Main Station was about $3.8M. According to Dave Ruhland, Director of Finance for Ag Research who is the primary contributor to the decreases was the closing out of those grant funded vacant positions. It was a reduction of 23 positions in the main station and almost 13 positions in the Extension Service which were special funded or grant funded positions for which funds were no longer available. According to

Dave this accounted for the majority of decrease in funds seen in the bill because those positions would have been in the base budget that you approved last session but they are no longer in the base budget going forward. For the Main Station that decrease of those 23 positions accounted for over $4M. He does not have the exact amount for Extension but it would be the most significant piece of the reduction in the Extension. There was also a reduction in their formula funds in Extension. The biggest contributor to that decrease in special funds was that reduction in FTE and is not an actual reduction in grant funds. At one point they had funds for those positions and they are no longer available.

Rep. Monson: They removed the vacant positions, they also removed the money but not in general funds, only in special funds.

Dolan: The positions that were removed were special funded positions. They did not shift them to general funds.

Chairman Skarphol: Two things left to do, the Extension Service and the Branch aspect of this? Do you still have questions on the Main Research Station?

Rep. Monson: I do have a question on the green sheet for the Main Research Station because I thought the only capital projects here were the Green House construction project. Now they list renovations of North Central, Williston, Langdon and Dickinson for $2.9M. Are these separated? Referring to the Green Sheet #1at the bottom?

Chairman Skarphol: Those projects are done so it is a $17M reduction.

Rep. Dosch: Why, on the green sheet on number 3, on the back side, Green House utilities at $173,000. Why is that listed as a separate line item?

Dolan: When a building comes on line, in phases, you will see the adjustment to their utilities. In Higher Ed they have utilities for their existing buildings then they will add to that utilities budget for new buildings coming on line. This should include all the utilities for that greenhouse. You would not see that going forward unless they needed to ask for more money.

Chairman Skarphol: It gets added into the utilities, this is for the first year of a new facility coming on.

Dolan: It will be a part of the operations line next biennium. This amount should provide enough for the entire operation for that facility.

Chairman Skarphol: This will be the third phase so there will probably be a request next time for the last phase. With the geo thermal it is probably built large enough to operate, it is primarily an electrical cost.

Rep. Dosch: The $470,000 for the soil and crop productivity and land management,

Dolan: It is found on p. 39, referring to attachment # 1, the SBARE book.

Chairman Skarphol: Give us an idea of what the $470,000 is.

Dolan: On page 39 of the SBARE book the total general fund increase is $1.4M. The Main Stations portion of that is $470,000 and that is for salary and fringe benefits for scientists. One at the main station and the related operating expenses for that person. For some support staff operating out of the main station.

Rep. Dosch: Nine new FTEs.

Dolan: Yes, in total

Chairman Skarphol: What are SNRS and ABEN?

Dolan: They are divisions within the main station. SNRS is the School of Natural Research Sciences. ABEN is the ...

Rep. Monson: This is only for the research. The Extension is going to be another addition.

Chairman Skarphol: What is the cost in Extension?

Dolan: The Extension for soil health and land management is $690,000.

Chairman Skarphol: It is over $2M for this.

Dolan: Yes, in total if you do both. SNRS is the school of Natural Research Sciences it includes programs including entomology, natural resources management, range science and soils science. ABEN is the Agricultural and Biosystems Engineering Department.

Rep. Dosch: In that section, we are adding nine FTEs and on the green sheet it shows no FTE increases.

Dolan: When Ag Research has the ability to adjust them during the interim as needed, they don't need Executive Branch approval for their FTEs, it is authorized legislatively. If they can contract services they may not hire an FTE.

Chairman Skarphol: Explain that again.

Dolan: We reflected the changes that were authorized. We did not reflect the changes they made otherwise. They always report how they are going to spend it, but if they don't need FTE or if they can contract for those services, they may not add an FTE.

Chairman Skarphol: The ability to adjust during the interim is understood but, they can't adjust their appropriations during the interim. If they adjust FTEs, they will have to use special funds. It is disturbing that they don't have to reflect, on the green sheets, the reality of their budget request.

Dolan: The reality of their budget request is in there, we just did not reflect them in the bill.

Chairman Skarphol: The green sheets are Legislative Council's responsibility, not OMBs. Why doesn't Council reflect the FTEs on the green sheets that are reflected in the budget request?

Chamberlin: I believe it is along the same lines, it is listed in the bill and also with Internet Budget and Reporting System (IBARS).

Chairman Skarphol: If we want Council to change the practice, it would require a policy change. We could change it in the bill if we wanted to do it just for this. If we want Council to change the practice, then it should be a directive to Council.

Rep. Monson: Part of the reason we have given them this authority is that they hire a lot of students, very part time with no fringes.

Chairman Skarphol: That was a different group, a group of 10 FTEs.

Rep. Monson: This may be the same thing.

Rep. Hawken: This group does not give us reason to distrust them, so that too makes a difference. Now as far as having Legislative Council put it in the green sheet, we certainly could have them do this.

Chairman Skarphol: It is not a matter of distrust but it is conflicting.

Rep. Monson: My notes say they used up 27-28 soil scientists before, now they have nine or ten. The FTEs fluctuates a lot based on the number of grants and special funded....

Rep. Dosch: We really don't know, if they are special funded I have no problem with whatever their FTE count is, it doesn't matter. But if we are paying out of general funds, it is ours. Looking at the cost to continue that is all rolled in there now. The $1.9M appropriation for operations and infrastructural support, and there we have another 15 FTEs. General funding dollars add up. The green sheets would reflect no new FTEs. Those that were special funded and now general funded, there is another couple there. We really don't know what is going on.

Chairman Skarphol: Addressing Dolan, is there any aspect of that that is in Extension or is that entirely in the main research budget?

Dolan: This is just infrastructure, which includes staffing. Extension has their own infrastructure technical support item which was the number one SBARE priority for the research station. That was for salary support for different technicians. They have one that is called infrastructure support but they are not related to each other. It is different needs at different areas.

Rep. Monson: Was this where Dr. Grafton talked about a switch from a communications director in his office to some technical support for a scientist.

Chairman Skarphol: Explaining the shift, it was from a public relations position to possibly managing the green house. This is a lot of people and we need to make a decision if we want to go that far.

Rep. Monson: All existing positions are special funded, addressing Dolan. Otherwise they would reflect in the green sheet.

Dolan: No, these would all be general funded positions new positions. They have the authority to change the positions. It was our decision because they have authority to change the positions if they have the money and the funding. It was out of our control and they did provide us all the details, and that was why the green sheet was reflected the way it is because that is the way we prepared the bill. I did not want to make it reflect badly on the Research Station. On the infrastructure support item for the Main Research Center, they talked about 10 FTE for Graduate Research Stipend because it is 10 bodies, some are half-time. They are graduate students, not FTE, temporary employees, summer interns. For the soil and land management, yes there are nine. In the true sense of the word it has only five FTE and funding for graduate research stipends.

Chairman Skarphol: If we were to take the number two priority in the Experiment Station, there are nine people in the experiment Station and there are three complimentary people in Extension so that is 12 altogether. On Priority number three on the Experiment Station, it would be 15 FTE, the operating costs for the 10 would be substantially without benefits. So we are looking at 12 in one category and 15 in another that is 27 jobs that they have. I appreciate that they reduced the number on the green sheet but we are talking about 27 jobs. If we want to create jobs, we should do it in a little different fashion.

Rep. Dosch: Since these are all new and expanded programs, we take out soil productivity and operations and infrastructural support.

Rep. Monson: I value SBARE's input in their process. If we hack out a whole...Number Two. They have been straight forward and have given us a lot of leeway. Saline soils are becoming a bigger problem with the rising water table. I think we need to keep it in there.

Chairman Skarphol: You would like to see # 2 stay minimally.

Rep. Hawken: They do good work, new administration has changed things. They select this because they think it is between a $10-20M productivity losses just in the Valley.
I would go down to the 4th one, where we took the piece out for the canola breeder. Those are the things that really help with the particular crops. We need the answer with the soils.

Rep. Williams: Number Two is extremely important to the agriculture community. In Wahpeton they are hauling out whole lime piles to put on the fields because of salinity. I am not in favor of doing anything with # 2.

Rep. Monson: We need to specify that we want them recorded better in OMB. You didn't report it to us, so we had to ask the right questions.

Chairman Skarphol: Creating new general funded positions is wrong.

Rep. Dosch: On # 2, the total bill shows $204M is what they will be spending. It seems that they could focus on coming up with $1.4M for the soil project. Questioning the management.

Chairman Skarphol: Not clear on what you are including to come up with $204M.
If you are including Upper Great Plains, the Agronomy Seed farm, that is not really reflective of what gets done in Ag Research and Extension. They are a different entity.

Rep. Dosch: Better management is needed.(Remainder is inaudible).

Chairman Skarphol: Dr. Grafton does his extreme best in managing. It takes a long time to research the varieties and there are constantly evolving diseases. Breeding new resistant varieties takes a long time. I share your frustration and I also have concerns for the salinity problem in all parts of the state.. I wouldn't have any heart burn with a motion to remove the 3rd priority,. Number two needs to stay, infrastructure with 20 students, p. 40 of Attachment # 1

Rep. Dosch: We have added $104M more than the Governor is spending. I will make a motion, then

Rep. Monson: Do they have the same ability to move their lines around as the unoversity system does, such as operating and capital construction.

Chairman Skarphol: Addressing Dolan, for purposes of discussion, if we keep # 2 and not #3 could the Department and Dr. Bresciani into the areas reflected in Number Three? Could they hire five graduate students with some of the numbers that are reflecvted in Number three and reduce one of the positions requested in Number Two?

Dolan: They have single line item in operations line, an operations line and a capital line. If you approve for a specific purpose, they would not likely divert it somewhere else. If they could find funds in their budget some other way, but they would not spend the funds you appropriate in other ways. They wouldn't want to violate that bill.

Chairman Skarphol: Under Number Three in the book, the revolving equipment fund on p. 40,part of the $1.8M in Number Three is $200,000. Does that increase it from $400,000 to $600,000?

Dolan: It changes the Branch Center revolving fund to $500,000 and the Main Station revolves back to $410,000.

Chairman Skarphol: The $410,000 Main Station operating fund would be for those FTE reflected below.

Dolan: It is in the 3rd paragraph in Number Three is to finance the scientists and the researchers for their operating costs.

Chairman Skarphol: The scientists and researchers we approved in '05-'07.

Dolan: It would be for all the researchers on board right now. It would increase it to $10,000.

Chairman Skarphol: In Carrington the investment in equipment is $4-$5M and they have no indoor storage. For that reason, we have not been overly generous but I don't think we need to go as far as they are asking.

Rep. Monson: Some of this is equipment in labs already, computers, etc. At the branch stations it is more of the scientific lab equipment that has to be inside.
I could not support taking it out, moving it over to some special fund authority.
They took out a lot of special funded positions and are asking us to put them into general funds. Would that impact the general fund?

Dolan: They reduced the positions based on lack of special funds. They did not ask for general fund moneys to fill these positions.

Rep. Monson: Could we say that we will switch them back to special funds. It may generate interest from groups who want research done to come forth with special funds.

Chairman Skarphol: Could they do that without further authorizations.

Dolan: Yes, they can.

Break 52:29
Rep. Monson: We've added $125,000 for that Number Nine to the data center, how married are you to that one?

Rep. Hawken: (Microphone is not turned on.) The SBARE board looks at those things; they don't get ranked as high. We are mandated to have it, it has to be paid for some way. Every single thing on here is important. Giving them ½ is not out of line, and asking them....

Rep. Monson: One half of this is paid by the University System, their $.49 and this is $.51. We gave them at least a half of that salary. If the Feds are saying you have to do it then they have to fund it within their budget.

Rep. Hawken: What we have done to the University budget, NDSU will suffer the most. I would to see us leaving the one person in there. Go to $1 . . . . .

Rep. Monson: Send out as Do Pass as amended.

Rep. Hawken: Second

Rep. Martinson: I thought we were looking at putting a little in for Carrington.

Rep. Dosch: Referring to Attachment.

Motion and Second withdrawn.

Rep. Williams: If you want to put something in there for Carrington what would it be?

Chairman Skarphol: The request is for $2.25M.

Rep. Martinson: Move to put $2.25M in for Carrington

Rep. Williams: Second

Chairman Skarphol: The Carrington station is the largest of all of them, it does the most research. North Central and Minot would be second.

Roll Call Vote: 4-2-0 Reps. Dosch and Monson Oppose, Motion Carries.

Rep. Dosch: Motion to remove the $1.9M in the operations and infrastructure support line item on Main Research Center.

Chairman Skarphol: It is the Number Three item on the SBARE list shown as $1.880M on page 40 of Attachment # 1.

Motion dies due to lack of a second.

Rep. Dosch: Are you going through each of the departments, in the bill in its entirety?

Chairman Skarphol: Anything in the bill.

Rep. Dosch: Referring to green sheets, if we looked at the Extension Service end of it, Item Number One, Technical Support Salary. That is where they moved special funded to general funded and **I will make a motion that on each these different departments we take anyone that contains anything where we are moving from special to general funded that it remain a special fund.**

Chairman Skarphol: Donations that would be specially funded moved to being general funded. The $450,000 reflected in Number One.

Rep. Monson: My note says "No FTE needed, move some around, maybe summer help students."

Dolan: These are not new positions currently funded with commodity dollars.

Rep. Monson: The motion would be to remove the $450,000 from general funds and move them back to being special funded. **Second the Motion**
Continuing with a side comment, I would like to see commodity groups and private dollars coming in but every time you take a dollar from a business there is going to be a string attached to that. We may save a few dollars only to give up some ...where private industry will come in and say that they provide the money but they want the royalties.

Chairman Skarphol: I have faith in the commodity groups. I don't disagree with Rep. Dosch to try to do what we can.

Roll Call Vote 3-3 motion fails.

Rep. Dosch: Move to take out $250,000 for Livestock Stewardship.

Rep. Monson: Second

Chairman Skarphol: That is relative to have someone perceived to be scientific expertise in the area of how livestock are handled and what is being done is human and to counter some of the accusations made by PETA and other groups.

Rep. Monson: I don't understand where this money would be used either.

Roll Call Vote: 6-0-0. Motion Passes

Rep. Martinson: Move a Do Pass as amended.

Rep. Hawken: Second

Roll Call Vote: 5-1-0, Opposed by Rep. Dosch. Motion carried.

Meeting Adjourned

2011 HOUSE STANDING COMMITTEE MINUTES

House Appropriations Committee
Roughrider Room, State Capitol

HB 1020
2/18/11
14756

☐ Conference Committee

Committee Clerk Signature Shirley Branning

Explanation or reason for introduction of bill/resolution:

A BILL for an Act to provide an appropriation for defraying the expenses of the extension service, northern crops institute, upper great plains transportation institute, main research center, branch research centers, and agronomy seed farm; to provide for transfers; to provide an exemption; and to declare an emergency.

Minutes: You may make reference to "attached testimony."

Representative Monson: Introduced the Ag Research Extension budget bill. I'll start with department 627, Upper Great Plains Transportation Institute (UGPTI). They will be taken in the order of their department numbers, as follows: In the bill, Department 627, this is page 2 lines 11-18 and the Green sheet Department 627. Continue to department 628 branch research centers in bill page 2 line 31 through page 3 line 13. Continue to department 630 NDSU extension service.

Chairman Delzer: They showed all the reductions, didn't they?

Representative Monson: We made very few changes there.

Chairman Delzer: what was the discussion on the 830 new money on pre-k?

Representative Monson: We were kind of waiting on that to see what is in other budgets.

Representative Hawken: This program is called gearing up for kindergarten, see attachment 1 and 2.

Representative Monson: Any other questions on Department 630? We move onto 638 Northern Crops Institution. No changes on governor's budget. Change on green sheet is change from general fund to special. We made no changes to the recommendation. Moving on to department 640 NDSU Main Research Station. The State Data center...you've been made aware that many federal funds are drying up. We are in a census year, and the census requires that we have certain data reported to our citizens. We felt we had to fund someone for this position. A total of 23.13 FTE positions were removed. We include in the data center one FTE, at $125,000 of the total amount needed.

Chairman Delzer: The census is pretty much over is it not?

Representative Monson: Yes, but the reporting that will be needed for redistricting is coming up. This person has been hired and the funding is drying up. It is from 51% Extension and 49% other sources. There are other FTE involved Department 649 Agronomy seed farm. No changes to budget because it is special funded.

Chairman Delzer: There was some talk about seed cleaning...

Representative Monson: We did not....it did not make the governor's budget. Rather than do a seed cleaning plant that is in other locations that we could look at portable ones and do a better job of utilizing those funds.

Vice Chairman Kempenich: Did you talk any about the seed foundation?

Representative Monson: They never really asked for money so it never came up.

Vice Chairman Kempenich: Last time they did an increase on the seed that went out and there was a big uproar.

Representative Monson: They never brought that up. They did say new new wheat varieties that were developed and have royalties coming in.

Chairman Delzer: You have an amendment?

Representative Monson: That is 01004 and I will Move the Amendment.

Representative Skarphol: Second.

Adopted by voice vote.

Representative Dosch: I have amendment .01005, Move to Adopt.

Representative Bellew: Second

Representative Dosch: He explained amendment .01005. It takes out the funding for the gearing up for kindergarten program.

Representative Hawken: This is a great investment. I really hope you will let this stay in the budget. In this body it depends on what the topic is. If it has Veteran, ag, we pay for it. If it has women or children, probably not. The outcome of this is more cost effective than finding the sugar content in a grape. This is an infrastructure piece, the future citizens of this state. It is important and will make a difference in this state.

Representative Skarphol: Looking at attachment gearing up for kindergarten, is there a cost to the parent for Gearing up for Kindergarten? Cost per family for 16 sessions, is that a cost to the parent?

Representative Hawken: I don't know but I can find that out.

Chairman Delzer: Each of us has to vote how we feel. We all have our own prerogatives.

Representative Nelson: To get back to Representative Dosch's point and the kindergarten program funded by DPI. Many rural schools don't have all day kindergarten. Head Start is by eligibility only...there's a donut hole in pre-k programs too. This is something a number of rural families are being able to utilize and I don't think it's a duplication

Representative Klein: I believe this is the way to go. 2 sessions ago, Representative Martinson put $25,000 in the budget for what we call a master gardener program. A surprising number of young kids, two to three hundred, are involved in this program, and I was amazed at the results. I think this is a good thing.

Representative Hawken: When it was being studied, an estimated cost of $2,000 for the 15 week session. The remaining part would be covered by fees, grants and other funding sources. Perhaps the parents pay as they are able.

Representative Skarphol: Gearing up for K was funded through the Extension Parenting Resource Centers in '09-'11 and they received $250,000. That was where the funding came from for the pilot that was done.

Chairman Delzer: All those in favor of amending 01005 signify by saying aye. The Chairman is in doubt; we will have a Roll Call Vote.

Roll Call Vote: 8-12-1. Motion Fails

Chairman Delzer: Any more amendments?

Representative Monson: Move a Do Pass on HB 1020 as amended.

Representative Skarphol: Second

Roll Call Vote: 14-6-1 Motion Carried.

Carrier: Representative Monson.

Meeting Closed.

Date: 2/10/11
Roll Call Vote #: 1

2011 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 1020

House Appropriations – Education and Environment Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken: ☒ Do Pass ☐ Do Not Pass ☐ Amended ☐ Adopt Amendment

☐ Rerefer to Appropriations ☐ Reconsider

Motion Made By Rep. Martinson Seconded By Rep. Williams

Representatives	Yes	No	Representatives	Yes	No
Chairman Bob Skarphol	X		Clark Williams	X	
Vice Chair Hawken	X				
Mark Dosch		X			
Rep. Martinson:	X				
David Monson		X			

Total (Yes) 4 No 2

Absent 0

Floor Assignment _____

If the vote is on an amendment, briefly indicate intent:

Date: 2/10/11
Roll Call Vote #: 2

2011 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 1020

House Appropriations – Education and Environment Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken: ☒ Do Pass ☐ Do Not Pass ☐ Amended ☐ Adopt Amendment

☐ Rerefer to Appropriations ☐ Reconsider

Motion Made By Rep.Dosch Seconded By Rep. Monson

Representatives	Yes	No	Representatives	Yes	No
Chairman Bob Skarphol	X		Clark Williams		X
Vice Chair Hawken		X			
Mark Dosch	X				
Rep. Martinson:		X			
David Monson	X				

Total (Yes) 3 No 3

Absent 0

Floor Assignment _____

If the vote is on an amendment, briefly indicate intent:

Date: 2/10/11
Roll Call Vote #: 3

2011 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 1020

House Appropriations – Education and Environment Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken: ☒ Do Pass ☐ Do Not Pass ☐ Amended ☐ Adopt Amendment

☐ Rerefer to Appropriations ☐ Reconsider

Motion Made By Rep.Martinson Seconded By Rep.Hawken

Representatives	Yes	No	Representatives	Yes	No
Chairman Bob Skarphol	X		Clark Williams	X	
Vice Chair Hawken	X				
Mark Dosch		X			
Rep. Martinson:	X				
David Monson	X				

Total (Yes) 5 No 1

Absent 0

Floor Assignment Rep. Skarphol

If the vote is on an amendment, briefly indicate intent:

Prepared by the Legislative Council staff for House Appropriations - Education and Environment
February 11, 2011

HK 2/22/11 1065

PROPOSED AMENDMENTS TO HOUSE BILL NO. 1020

Page 1, replace line 20 with:

"Extension service	$47,091,489	$515,165	$47,606,654"

Page 1, replace line 22 with:

"Total all funds	$47,929,289	$565,165	$48,494,454"

Page 1, replace line 24 with:

"Total general fund	$22,000,412	$3,365,232	$25,365,644"

Page 2, replace line 22 with:

"Main research center	$87,530,418	$10,862,153	$98,392,571"

Page 2, replace line 26 with:

"Total all funds	$87,530,418	$10,862,153	$98,392,571"

Page 2, replace line 27 with:

"Less estimated income	45,013,267	(879,692)	44,133,575"

Page 2, replace line 28 with:

"Total general fund	$42,517,151	$11,741,845	$54,258,996"

Page 2, replace line 29 with:

"Full-time equivalent positions	329.26	3.00	332.26"

Page 3, replace line 3 with:

"Dickinson research center	$5,012,580	$1,375,982	$6,388,562"

Page 3, replace line 7 with:

"North central research center	3,973,952	425,869	4,399,821"

Page 3, replace line 9 with:

"Carrington research center	6,727,962	2,623,526	9,351,488"

Page 3, replace line 10 with:

"Total all funds	$26,284,006	$5,673,783	$31,957,789"

Page 3, replace line 11 with:

"Less estimated income	13,916,816	1,880,765	15,797,581"

Page 3, replace line 12 with:

"Total general fund	$12,367,190	$3,793,018	$16,160,208"

Page 3, replace line 13 with:

"Full-time equivalent positions	95.49	1.00	96.49"

Page 3, replace line 25 with:

"Grand total general fund	$79,913,767	$19,483,291	$99,397,058"

Page 3, replace line 26 with:

"Grand total special funds	109,469,662	(1,169,470)	108,300,192"

Page 3, replace line 27 with:

"Grand total all funds	$189,383,429	$18,313,821	$207,697,250"

Page 4, after line 2, insert:

"Carrington research center		0	2,225,000
agronomy laboratory capital project"			

Page 4, replace line 13 with:

"Total all funds		$22,675,000	$11,719,581"

Page 4, replace line 15 with:

"Total general fund		$17,700,000	$9,216,650"

Page 5, after line 11, insert:

"SECTION 7. PERMANENT OIL TAX TRUST FUND - DICKINSON RESEARCH CENTER - OPERATING POOL FUNDING. The estimated income line item in subdivision 5 of section 1 of this Act includes $800,000 from the permanent oil tax trust fund. This funding is available only for defraying the costs of operations of the Dickinson research center, for the biennium beginning July 1, 2011, and ending June 30, 2013."

Renumber accordingly

STATEMENT OF PURPOSE OF AMENDMENT:

House Bill No. 1020 - Summary of House Action

	Executive Budget	House Changes	House Version
Transportation Institute			
Total all funds	$24,069,961	$0	$24,069,961
Less estimated income	22,150,333	0	22,150,333
General fund	$1,919,628	$0	$1,919,628
Branch Research Centers			
Total all funds	$28,812,789	$3,145,000	$31,957,789
Less estimated income	14,877,581	920,000	15,797,581
General fund	$13,935,208	$2,225,000	$16,160,208
NDSU Extension Service			
Total all funds	$48,744,454	($250,000)	$48,494,454
Less estimated income	23,128,810	0	23,128,810

General fund	$25,615,644	($250,000)	$25,365,644
Northern Crops Institute			
Total all funds	$3,347,307	$0	$3,347,307
Less estimated income	1,654,725	0	1,654,725
General fund	$1,692,582	$0	$1,692,582
Main Research Center			
Total all funds	$97,897,571	$495,000	$98,392,571
Less estimated income	43,973,575	160,000	44,133,575
General fund	$53,923,996	$335,000	$54,258,996
Agronomy Seed Farm			
Total all funds	$1,435,168	$0	$1,435,168
Less estimated income	1,435,168	0	1,435,168
General fund	$0	$0	$0
Bill total			
Total all funds	$204,307,250	$3,390,000	$207,697,250
Less estimated income	107,220,192	1,080,000	108,300,192
General fund	$97,087,058	$2,310,000	$99,397,058

House Bill No. 1020 - Branch Research Centers - House Action

	Executive Budget	House Changes	House Version
Dickinson Research Center	$5,588,562	$800,000	$6,388,562
Central Grasslands Research Center	2,865,847		2,865,847
Hettinger Research Center	3,373,175		3,373,175
Langdon Research Center	2,378,807		2,378,807
North Central Research Center	4,279,821	120,000	4,399,821
Williston Research Center	3,200,089		3,200,089
Carrington Research Center	7,126,488	2,225,000	9,351,488
Total all funds	$28,812,789	$3,145,000	$31,957,789
Less estimated income	14,877,581	920,000	15,797,581
General fund	$13,935,208	$2,225,000	$16,160,208
FTE	95.49	1.00	96.49

Department No. 628 - Branch Research Centers - Detail of House Changes

	Adds Funding for SBARE Canola Initiative[1]	Adds Funding for Dickinson Research Center[2]	Adds Funding for Capital Project[3]	Total House Changes
Dickinson Research Center		$800,000		$800,000
Central Grasslands Research Center				
Hettinger Research Center				
Langdon Research Center				
North Central Research Center	120,000			120,000
Williston Research Center				
Carrington Research Center			2,225,000	2,225,000
Total all funds	$120,000	$800,000	$2,225,000	$3,145,000
Less estimated income	120,000	800,000	0	920,000
General fund	$0	$0	$2,225,000	$2,225,000
FTE	1.00	0.00	0.00	1.00

[1] Funding is added for the State Board of Agricultural Research and Education (SBARE) initiative to

enhance canola crop development efforts.

[2] Funding is added for operations at the Dickinson Research Center from the permanent oil tax trust fund.

[3] Funding is added for the agronomy laboratory capital project at the Carrington Research Center.

House Bill No. 1020 - NDSU Extension Service - House Action

	Executive Budget	House Changes	House Version
Extension Service	$47,856,654	($250,000)	$47,606,654
Soil Conservation Committee	887,800		887,800
Total all funds	$48,744,454	($250,000)	$48,494,454
Less estimated income	23,128,810	0	23,128,810
General fund	$25,615,644	($250,000)	$25,365,644
FTE	255.75	0.00	255.75

Department No. 630 - NDSU Extension Service - Detail of House Changes

	Removes Funding for SBARE Livestock Stewardship Initiative[1]	Total House Changes
Extension Service	($250,000)	($250,000)
Soil Conservation Committee		
Total all funds	($250,000)	($250,000)
Less estimated income	0	0
General fund	($250,000)	($250,000)
FTE	0.00	0.00

[1] Funding for the SBARE initiative relating to livestock stewardship is removed.

House Bill No. 1020 - Main Research Center - House Action

	Executive Budget	House Changes	House Version
Main Research Center	$97,897,571	$495,000	$98,392,571
Total all funds	$97,897,571	$495,000	$98,392,571
Less estimated income	43,973,575	160,000	44,133,575
General fund	$53,923,996	$335,000	$54,258,996
FTE	329.26	3.00	332.26

Department No. 640 - Main Research Center - Detail of House Changes

	Adds Funding for SBARE Canola Initiative[1]	Adds Funding for SBARE State Data Center Initiative[2]	Total House Changes

Main Research Center	$370,000	$125,000	$495,000
Total all funds	$370,000	$125,000	$495,000
Less estimated income	160,000	0	160,000
General fund	$210,000	$125,000	$335,000
FTE	2.00	1.00	3.00

[1] Funding is added for the SBARE initiative to enhance canola crop development efforts.

[2] Funding is added for the SBARE initiative relating to the State Data Center.

Date: 2/18
Roll Call Vote #: 1

2011 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 1020

House Appropriations Committee

Legislative Council Amendment Number 01004

Action Taken: ☐ Do Pass ☐ Do Not Pass ☐ Amended ☒ Adopt Amendment

☐ Rerefer to Appropriations ☐ Reconsider

Motion Made By Rep. Monson Seconded By Rep. Skarphol

Representatives	Yes	No	Representatives	Yes	No
Chairman Delzer			Representative Nelson		
Vice Chairman Kempenich			Representative Wieland		
Representative Pollert					
Representative Skarphol					
Representative Thoreson			Representative Glassheim		
Representative Bellew			Representative Kaldor		
Representative Brandenburg			Representative Kroeber		
Representative Dahl			Representative Metcalf		
Representative Dosch			Representative Williams		
Representative Hawken					
Representative Klein					
Representative Kreidt					
Representative Martinson					
Representative Monson					

Total (Yes) _____ No _____

Absent _____

Floor Assignment _____

If the vote is on an amendment, briefly indicate intent:

Voice vote carries

Prepared by the Legislative Council staff for
Representative Dosch
February 18, 2011

PROPOSED AMENDMENTS TO HOUSE BILL NO. 1020

Page 1, replace line 20 with:

"Extension service	$47,091,489	($64,835)	$47,026,654"

Page 1, replace line 22 with:

"Total all funds	$47,929,289	($14,835)	$47,914,454"

Page 1, replace line 24 with:

"Total general fund	$22,000,412	$2,785,232	$24,785,644"

Page 3, replace line 25 with:

"Grand total general fund	$79,913,767	$16,343,291	$96,257,058"

Page 3, replace line 27 with:

"Grand total all funds	$189,383,429	$14,093,821	$203,477,250"

Renumber accordingly

Statement of Purpose of Amendment

NDSU Extension Service - This amendment removes an $830,000 increase in funding from the general fund included in the executive budget for a gearing up for kindergarten program to be administered by the Extension Service.

Date: 2/18
Roll Call Vote #: 2

2011 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 1020

House Appropriations Committee

Legislative Council Amendment Number 01005

Action Taken: ☐ Do Pass ☐ Do Not Pass ☐ Amended ☒ Adopt Amendment
☐ Rerefer to Appropriations ☐ Reconsider

Motion Made By Rep. Dosch Seconded By Rep. Bellew

Representatives	Yes	No	Representatives	Yes	No
Chairman Delzer	X		Representative Nelson		X
Vice Chairman Kempenich	X		Representative Wieland	X	
Representative Pollert		X			
Representative Skarphol		X			
Representative Thoreson	X		Representative Glassheim		X
Representative Bellew	X		Representative Kaldor		X
Representative Brandenburg	X		Representative Kroeber		X
Representative Dahl		X	Representative Metcalf		X
Representative Dosch	X		Representative Williams		
Representative Hawken		X			
Representative Klein		X			
Representative Kreidt	X				
Representative Martinson		X			
Representative Monson		X			

Total (Yes) 8 No 12

Absent

Floor Assignment

If the vote is on an amendment, briefly indicate intent:

removes funding for gearing up for kindergarten

Voice vote uncertain

motion fails

Date: 2/18
Roll Call Vote #: 3

2011 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 1020

House Appropriations Committee

Legislative Council Amendment Number _____

Action Taken: ☒ Do Pass ☐ Do Not Pass ☒ Amended ☐ Adopt Amendment

☐ Rerefer to Appropriations ☐ Reconsider

Motion Made By Rep. Monson Seconded By Rep. Skarphol

Representatives	Yes	No	Representatives	Yes	No
Chairman Delzer		X	Representative Nelson	X	
Vice Chairman Kempenich		X	Representative Wieland		X
Representative Pollert	X				
Representative Skarphol	X				
Representative Thoreson		X	Representative Glassheim	X	
Representative Bellew		X	Representative Kaldor	X	
Representative Brandenburg	X		Representative Kroeber	X	
Representative Dahl	X		Representative Metcalf	X	
Representative Dosch		X	Representative Williams		
Representative Hawken	X				
Representative Klein	X				
Representative Kreidt	X				
Representative Martinson	X				
Representative Monson	X				

Total (Yes) 14 No 6

Absent 1

Floor Assignment Rep. Monson

If the vote is on an amendment, briefly indicate intent:

REPORT OF STANDING COMMITTEE

HB 1020: Appropriations Committee (Rep. Delzer, Chairman) recommends **AMENDMENTS AS FOLLOWS** and when so amended, recommends **DO PASS** (14 YEAS, 6 NAYS, 1 ABSENT AND NOT VOTING). HB 1020 was placed on the Sixth order on the calendar.

Page 1, replace line 20 with:

"Extension service	$47,091,489	$515,165	$47,606,654"

Page 1, replace line 22 with:

"Total all funds	$47,929,289	$565,165	$48,494,454"

Page 1, replace line 24 with:

"Total general fund	$22,000,412	$3,365,232	$25,365,644"

Page 2, replace line 22 with:

"Main research center	$87,530,418	$10,862,153	$98,392,571"

Page 2, replace line 26 with:

"Total all funds	$87,530,418	$10,862,153	$98,392,571"

Page 2, replace line 27 with:

"Less estimated income	45,013,267	(879,692)	44,133,575"

Page 2, replace line 28 with:

"Total general fund	$42,517,151	$11,741,845	$54,258,996"

Page 2, replace line 29 with:

"Full-time equivalent positions	329.26	3.00	332.26"

Page 3, replace line 3 with:

"Dickinson research center	$5,012,580	$1,375,982	$6,388,562"

Page 3, replace line 7 with:

"North central research center	3,973,952	425,869	4,399,821"

Page 3, replace line 9 with:

"Carrington research center	6,727,962	2,623,526	9,351,488"

Page 3, replace line 10 with:

"Total all funds	$26,284,006	$5,673,783	$31,957,789"

Page 3, replace line 11 with:

"Less estimated income	13,916,816	1,880,765	15,797,581"

Page 3, replace line 12 with:

"Total general fund	$12,367,190	$3,793,018	$16,160,208"

Page 3, replace line 13 with:

"Full-time equivalent positions 95.49 1.00 96.49"

Page 3, replace line 25 with:

"Grand total general fund $79,913,767 $19,483,291 $99,397,058"

Page 3, replace line 26 with:

"Grand total special funds 109,469,662 (1,169,470) 108,300,192"

Page 3, replace line 27 with:

"Grand total all funds $189,383,429 $18,313,821 $207,697,250"

Page 4, after line 2, insert:

"Carrington research center 0 2,225,000

agronomy laboratory capital project"

Page 4, replace line 13 with:

"Total all funds $22,675,000 $11,719,581"

Page 4, replace line 15 with:

"Total general fund $17,700,000 $9,216,650"

Page 5, after line 11, insert:

"SECTION 7. PERMANENT OIL TAX TRUST FUND - DICKINSON RESEARCH CENTER - OPERATING POOL FUNDING. The estimated income line item in subdivision 5 of section 1 of this Act includes $800,000 from the permanent oil tax trust fund. This funding is available only for defraying the costs of operations of the Dickinson research center, for the biennium beginning July 1, 2011, and ending June 30, 2013."

Renumber accordingly

STATEMENT OF PURPOSE OF AMENDMENT:

House Bill No. 1020 - Summary of House Action

	Executive Budget	House Changes	House Version
Transportation Institute			
Total all funds	$24,069,961	$0	$24,069,961
Less estimated income	22,150,333	0	22,150,333
General fund	$1,919,628	$0	$1,919,628
Branch Research Centers			
Total all funds	$28,812,789	$3,145,000	$31,957,789
Less estimated income	14,877,581	920,000	15,797,581
General fund	$13,935,208	$2,225,000	$16,160,208
NDSU Extension Service			
Total all funds	$48,744,454	($250,000)	$48,494,454
Less estimated income	23,128,810	0	23,128,810

General fund	$25,615,644	($250,000)	$25,365,644
Northern Crops Institute			
Total all funds	$3,347,307	$0	$3,347,307
Less estimated income	1,654,725	0	1,654,725
General fund	$1,692,582	$0	$1,692,582
Main Research Center			
Total all funds	$97,897,571	$495,000	$98,392,571
Less estimated income	43,973,575	160,000	44,133,575
General fund	$53,923,996	$335,000	$54,258,996
Agronomy Seed Farm			
Total all funds	$1,435,168	$0	$1,435,168
Less estimated income	1,435,168	0	1,435,168
General fund	$0	$0	$0
Bill total			
Total all funds	$204,307,250	$3,390,000	$207,697,250
Less estimated income	107,220,192	1,080,000	108,300,192
General fund	$97,087,058	$2,310,000	$99,397,058

House Bill No. 1020 - Branch Research Centers - House Action

	Executive Budget	House Changes	House Version
Dickinson Research Center	$5,588,562	$800,000	$6,388,562
Central Grasslands Research Center	2,865,847		2,865,847
Hettinger Research Center	3,373,175		3,373,175
Langdon Research Center	2,378,807		2,378,807
North Central Research Center	4,279,821	120,000	4,399,821
Williston Research Center	3,200,089		3,200,089
Carrington Research Center	7,126,488	2,225,000	9,351,488
Total all funds	$28,812,789	$3,145,000	$31,957,789
Less estimated income	14,877,581	920,000	15,797,581
General fund	$13,935,208	$2,225,000	$16,160,208
FTE	95.49	1.00	96.49

Department No. 628 - Branch Research Centers - Detail of House Changes

	Adds Funding for SBARE Canola Initiative[1]	Adds Funding for Dickinson Research Center[2]	Adds Funding for Capital Project[3]	Total House Changes
Dickinson Research Center		$800,000		$800,000
Central Grasslands Research Center				
Hettinger Research Center				
Langdon Research Center				
North Central	120,000			120,000

Research Center				
Williston Research Center				
Carrington Research Center			2,225,000	2,225,000
	$120,000	$800,000	$2,225,000	$3,145,000
Total all funds				
Less estimated income	120,000	800,000	0	920,000
	$0	$0	$2,225,000	$2,225,000
General fund				
	1.00	0.00	0.00	1.00
FTE				

[1] Funding is added for the State Board of Agricultural Research and Education (SBARE) initiative to enhance canola crop development efforts.

[2] Funding is added for operations at the Dickinson Research Center from the permanent oil tax trust fund.

[3] Funding is added for the agronomy laboratory capital project at the Carrington Research Center.

House Bill No. 1020 - NDSU Extension Service - House Action

	Executive Budget	House Changes	House Version
Extension Service	$47,856,654	($250,000)	$47,606,654
Soil Conservation Committee	887,800		887,800
	$48,744,454	($250,000)	$48,494,454
Total all funds			
Less estimated income	23,128,810	0	23,128,810
	$25,615,644	($250,000)	$25,365,644
General fund			
	255.75	0.00	255.75
FTE			

Department No. 630 - NDSU Extension Service - Detail of House Changes

	Removes Funding for SBARE Livestock Stewardship Initiative[1]	Total House Changes
Extension Service	($250,000)	($250,000)
Soil Conservation Committee		
	($250,000)	($250,000)
Total all funds		
Less estimated income	0	0
	($250,000)	($250,000)
General fund		
	0.00	0.00
FTE		

[1] Funding for the SBARE initiative relating to livestock stewardship is removed.

House Bill No. 1020 - Main Research Center - House Action

	Executive	House	House

	Budget	Changes	Version
Main Research Center	$97,897,571	$495,000	$98,392,571
Total all funds	$97,897,571	$495,000	$98,392,571
Less estimated income	43,973,575	160,000	44,133,575
General fund	$53,923,996	$335,000	$54,258,996
FTE	329.26	3.00	332.26

Department No. 640 - Main Research Center - Detail of House Changes

	Adds Funding for SBARE Canola Initiative[1]	Adds Funding for SBARE State Data Center Initiative[2]	Total House Changes
Main Research Center	$370,000	$125,000	$495,000
Total all funds	$370,000	$125,000	$495,000
Less estimated income	160,000	0	160,000
General fund	$210,000	$125,000	$335,000
FTE	2.00	1.00	3.00

[1] Funding is added for the SBARE initiative to enhance canola crop development efforts.

[2] Funding is added for the SBARE initiative relating to the State Data Center.

2011 SENATE APPROPRIATIONS

HB 1020

2011 SENATE STANDING COMMITTEE MINUTES

Senate Appropriations Committee
Harvest Room, State Capitol

HB 1020 - UGPTI
03-10-2011
Job # 15267

☐ Conference Committee

Committee Clerk Signature Allie Delzer

Explanation or reason for introduction of bill/resolution:

UPPER GREAT PLAINS TRANSPORTATION INSTITUTE

Minutes: See attached testimony.

Chairman Holmberg called the committee to order on Thursday, March 10, 2011 at 2:30 pm In reference to HB 1020, The **Upper Great Plains Transportation Institute**. All committee members were present except Senator Wanzek. Tammy R. Dolan, OMB and Sara Chamberlin, Legislative Council were also present. **Subcommittee Members are as follows: Chairman Bowman, Senators Christmann, Holmberg and O'Connell.**

Senator Robinson asks will there be an opportunity for us, as a committee, to hear from Dr. Bresciani or Dr. Kelley, in regards to the research corridor, EERC and some of those entities because of the role that they play within the system and the state?

Chairman Holmberg states, I am sure there will be. We will have to move on this right now. Tomorrow we have the board office. Which includes all of those "pass through" but we will make sure we take care of all of our out of town folks and then we will worry about the in town folks. Remember, this is a different bill. HB 1020.

Dr. Bresciani, President of NDSU. He states this is the other side of what NDSU contributes to our state. We have a variety of functions ready to present.

Gene Griffin, Director of the Upper Great Plains Transportation Institute testified in favor of HB 1020. **UGPI and Testimony attached # 1**. We respectfully request that the Senate concur with the House action, which approved the executive recommendation, which you will find on page 4. I would like to talk to you about the future directions for the 2011-2013 biennium. The first thing we are working on is to ensure the University Transportation Center's program is reauthorized. We are part of a competitive program that provides us with approximately, $2 M/year through the US Dept. of Transportation. We want to make sure that program is alive and we can compete with it. For your information, some of the other League Universities throughout the US, there are 10 competitive centers. The other League Universities are MIT, City University of NY, Penn State, University of Tennessee, Texas A&M, University of Nebraska, Purdue, UC Berkeley and University of Washington. We also have 2 other programs in the bill. That is our small urban and rural transit center and our rural

transportation safety and securities center. We are working very closely with our delegation to see what we can do to make sure those programs continue. We hope to successfully recompete for the University Transportation Center and we think the language will be in there to keep the program. We also are working hard to create a new center for transportation applications in, sensing communications and programming. We call it SMARTSe, (Surface Mobility Application Real-Time Simulation environments). We are working with a number of private sector companies that have contributed over $100,000 of in-kind support and equipment. Basically, this program is looking at using sensing technology, wireless communications and also computer programming to increase the mobility of people and freight through communications with infrastructure, infrastructure to vehicles and both infrastructure and vehicles to drivers and passengers. We will continue the transportation learning network program and grow it. We have hired a new director recently. He is with us today, Tim Horner, who use to be with the ND DOT. We are very pleased to have him develop that program of training and getting information out, particularly to remote spots and to minimize the amount of time and travel that employees have to take. We are also developing a transportation security and terrorism program. Transportation is always the vector and many times the target of terrorism. Recently, if you'll note, it is receiving a lot of attention in Washington, DC due to the radicalization of certain groups. We think it has a real opportunity to make a contribution, not only at the state level but at the national level. We are fully developing our center for waterway freight analysis, it is very critical for us, both in the Pacific NW and the upper and lower Mississippi. The Corps of Engineers has selected four universities to conduct their work for them, Texas A&M, University of Tennessee, Marshal University and North Dakota State University. We are proud to say that they are using our model to develop the programs in the other universities. I want to expand our advanced traffic analysis center. We think we are moving into an important era now where we see a convergence of communications and transportation. We are going to see a lot of things in the next 10 years that are really going to surprise a lot of people, in terms of the technologies, that will make our lives safer and improve our mobility. We have just put in $600,000 of federal funds into a agricultural transportation research outreach program. We hope over the next 2-3 years, to use that funding to create a program which will address the agricultural issues, not only of this state but the surrounding region as well. Also, try to develop methods and means of making that program sustainable. Then we are also improving the marketing and partnership of transportation education programs. We are seeing a real increase in students and these students actually pay for the program. It is basically self-funded. We see that program growing significantly. In our Masters of Managerial Logistics, we believe we will have a minimum of 10 US Army captains in the program this coming fall. We work with the NDSU administration, to create a school of transportation, within the university. We think it is an important point. Often times you look through the campuses of any modern day university and you are going to see all segments of business and industry and professional endeavors represented there. Whether, it is law school, medical school, agriculture, engineering and all the math and sciences. Most of the time we don't see transportation but yet transportation is truly the glue of our social economic system. We think that having a school of transportation would be about an awareness of some of the issues for a number of people. Finally, we will be working closely with the University to try and secure separate funding for a transportation studies bill.

V. Chair Bowman asks, two years ago we gave you money for building and you were getting some from the federal government, did the money come through and did you get the building built?

Gene Griffin states, no. We received authorization but we did not receive state funding for it. We were not able to raise the money, at that time, so I believe we did not ask for authorization in our budget, this time around.

Chairman Holmberg closed the hearing on HB 1020.

2011 SENATE STANDING COMMITTEE MINUTES

Senate Appropriations Committee
Harvest Room, State Capitol

HB 1020 – ND Forest Service
03-10-2011
Job # 15270

☐ Conference Committee

Committee Clerk Signature Alice Dubzer

Explanation or reason for introduction of bill/resolution:

NORTH DAKOTA FOREST SERVICE

Minutes: See attached testimony.

Chairman Holmberg called the committee back to order on March 10, 2011 at 2:45 pm in reference to HB 1020, the ND Forest Service. All committee members were present except Senator Wanzek. Tammy R. Dolan, OMB and Sara Chamberlin, Legislative Council were also present. **Subcommittee Members are as follows: Chairman Bowman, Senators Christmann, Holmberg and O'Connell.**

Larry A. Kotchman, State Forester testified in favor of HB 1020 (HB 1003) **ND Forest Service** and Testimony attached # 1. Refer to page 13-14, the executive recommendation (House) for the ND Forest Service. We are supportive of the governor's recommendation and the House recommendation. Those address the critical needs of forestry for ND. Page 18, includes the Program Enhancement. This deals with the needs that are identified in a ND statewide assessment for Forest Resources and Forest Resource Strategy. This assessment was completed this past year. It was something that was part of the 2008 farm bill that Congress passed and all 50 states and territorial entities as well. It was developed with a lot of input and involvement from a wide array of partners throughout ND. These local, state, federal and tribal partners identified some critical natural resource issues that relate to forestry. They include things such as invasive forest insects and diseases, pathogens and also communities at risk from wild land fire and forest restoration. This enhancement would be used to address those critical needs and replacement of specialized equipment for forestry, specifically, at Towner State Nursery, which we operate. Basically, what we are seeing across ND, is a need to continue our investments in forestry because those types of things do make a difference, not only for communities, but also for the quality of life that we enjoy throughout our state. Page 19, addresses the optional budget request. This is a onetime request. It deals with Emerald Ash Borer. It is an invasive species that arrived in the US, in the Detroit, Michigan area in 2002. This invasive species of insects, that attacks all species of ash in North America, has moved into 15 states and 2 Canadian provinces, killing over 50 million ash trees. It is as close as St. Paul, MN. right now. There is no treatment that is successful for trees that are succumbing to this particular invasive insect. It is going to be a situation where it could eventually arrive in ND, in the next few years, and communities and others would lose ash trees on their boulevards and in their parks and would be faced with removal costs and

replanting. The governor recommended $250,000, as a onetime predictor, optional funding, to help tree communities with the costs of removing and replacing trees. It would be done on a one-to-one matching program basis. We have a population of 78 million ash trees in ND.
We have extraordinary repairs and equipment and those are important due to having field offices. We have a capital project request that is on page 22-23. This capital request was not included in the governor's recommendation or the House recommendation. It does include the replacement of and conversion for freezer tree storages at Towner State Nursery. This addition would move us forward for tree seedlings, to help us get ahead real of real challenges, we have in a localized labor workforce. This would allow us to do some things in the fall and winter for shipping earlier in the spring.

Senator Wardner asks, we shouldn't be planting any green ash now?

Larry Kotchman states, yes, that is correct. I would recommend not planting any more ash, we advocate planting a diversity of species.

Senator Erbele states, just looking through the information, would replants and cleaning out of dead trees help? Is there anything that can be done with the borer itself?

Larry Kotchman states it is a work in progress. There are insecticide treatments, very expensive; there are some variables within 15 miles of the target trees you want to treat. Some more will be done with things with various predator attacks.

V. Chair Bowman asks, is your budget taking care of the extraordinary repairs?

Larry Kochman states, we do have $307,000, that is not included in this budget. But basically, we've been keeping up fairly well. We are building a backup on deferred maintenance.

Senator Warner states, Dutch elm disease is actually a fungus carried by a beetle. This is different. This is actually physical damage done by the beetle, correct?

Larry Kotchman states, yes, it is caused by feeding damage that occurs right beneath the bark of ash trees. The larvae tunnel and get underneath the bark and they disrupt the flow of water and nutrients in the trees and they die, as a result of that.

Senator Warner asks, are there policies that we should be looking at in other areas, transportation of fire wood etc? Are there things that we need to be aware of that, we may be asked about in the future sessions?

Larry Kotchman states that there is a considerable amount of work with ND Dept of Agriculture and the USDA Animal, Plant and Health Inspection Services. The regulatory on the federal level and the state level, have put together a readiness and response plan to deal with things. Transportation of fire wood and other kinds of infested materials is the major threat. That is how it vectors from one place to the next. Ordinarily, the insect only moves a small distance by itself. Quarantines have been put in place and additional work and training needs to be done, as well as, public awareness about making sure we don't move things from one place to the next. There are state and federal regulations in place, in those areas, that have

had infestation. Minnesota has done a fantastic job of getting on top of the situation in St. Paul, where it showed up in a major transportation center.

Senator Krebsbach asks, is there an inventory of ash and emerald trees in the nurseries in the state and what are we doing with them?

Larry Kochman states, there has been an inventory done, as far as the nurseries. Hardly anyone is selling green ash anymore. There is a very low level of plant material still available in private and public nurseries.

Dr. Bresciani states that he wants to thank Larry for all of his work. They are the "unsung heroes of the state". Thank you for your work.

Chairman Holmberg closes the hearing on HB 1020. (HB 1003)

2011 SENATE STANDING COMMITTEE MINUTES

Senate Appropriations Committee
Harvest Room, State Capitol

HB 1020 – Main Research
03-10-2011
Job # 15282

☐ Conference Committee

Committee Clerk Signature Alice Delzer

Explanation or reason for introduction of bill/resolution:

MAIN RESEARCH & BRANCH STATIONS & EXTENSION SERVICE

Minutes: "Attached Testimony."

Chairman Holmberg called the committee back to order on Thursday, March 10th at 2:30 pm in reference to HB 1020, Main Research & Branch Stations & Extension Service. All committee members were present except Senator Wanzek. Tammy R. Dolan, OMB and Brady Larson, Legislative Council were also present. Subcommittee Members are as follows: Chairman Bowman, Senators Christmann, Holmberg and O'Connell.

Rodney Howe, Chair, State Board of Agricultural Research and Education. (His introduction was missed at the beginning of his testimony). We listened and took the needs and tried to put them into packages that were both practical and possible. We didn't fragment it. We put it into packages so we can offer a complete solution. Not a little bit of science here and a little bit of education there. A package, so that is part of what you see before you. I think it is important to note that after the input and after the packages were initially drafted, we did our initial prioritization, based on need without the dollar amounts. The dollars were not included in it initially. Later the dollars were added and the priorities stayed essentially the same. The budget you see presented to you is truly a needs based budget. As we prioritized, two themes seemed to surface. One was soil health and the other was infrastructure. When we talk of soil health, I will give you a couple of examples. About 12.5 million acres of ND are affected by saline and sodic soil. If we can reduce that, it is not only the white deserts you see of the saline, it is the loss and production from 10-20-30-40% loss in production, due to the saline and sodic soils. If we can bring that back into production at $10-$20-$30 and much more than that and you will see grosses of $300-$400-$500 an acre in agriculture, if we can get that soil back into production. It will generate hundreds of millions of dollars of new revenue to ND. In our budget, throughout out all of it, you will see some FTE's. I want to point out to you, in an ongoing effort by NDSU, a couple of figures. Dr. Grafton and Director Hauck gave me some information that they are continually doing but they have 15-20 positions that they have redirected those positions and made them more specific to the appropriate needs. Additionally, I got some figures. They have taken special funded FTE's that are vacant and eliminated those positions. They haven't left them there hanging. I think that is important to note as we go forward. Keeping in mind, ND Agriculture represents one-fourth of the states' economy, $25-30 billion a year, a conservative estimate, Senator Bowman taught me, early in

the game, about return-on-investment. You are being asked to invest and fund these things. A few examples, such as ROI, one variety, Glen wheat, after its introduction, generated an estimated $350M, the first year. The new greenhouse at NDSU, it's nearing completion and it is world class and it will continue to enhance ND Ag economy, not only through disease research but new varieties that will produce new dollars for ND. The beef research facility, which you funded in the past and is nearing completion, and one of the goals of the facility is to increase feed efficiency by 10%. If that goal is achieved, through the state of the art facility will generate about $35-40M a year in new revenue for our livestock producers. There is a return on investment on what is being presented to you and sometimes significant returns. You will probably see throughout your time, significant individualized challenges to what we are presenting to you. Everyone has needs and several needs are quite important. The ESBAR board, which is comprised of producers, scientists, ag administrators spent months and months, prioritizes it for the greatest need for the greatest good. I hope as you go forward, you will respect our process and consider the needs, based on their priorities. We are not opposed to other needs and there are many of them.
I have talked about the #1 industry, talked of ROI, efficient use of dollars but the ROI and all of the #1 ag economy, doesn't happen in a vacuum. It takes good people and good facilities to do this. So we respectfully request, that you consider our priorities and continue to invest in ND.

Senator Robinson states he appreciates the addition of the "E" on the SPAR. It broadens the scope a bit and focuses on education. You referenced your priority list and in the process of putting that together, with all the commodity groups and the strength of Ag, is there any weighted factors given to the 4-H, the home extension side of things? Will we ever see, their priorities, # 1 and #2, on the ESPAR list? Are we ever going to get that side of extension and research to move up the ladder?

Rodney Howe states, we did do some strategic planning. One of the things that rose to the top was the 4-H leadership. The education component is more difficult to quantify than the research component. It is hard to put a dollar amount on that information being taken out but research is no good without education. We just try to determine our greatest needs.

Senator Robinson states, as you work through this list in the future, think through that process again and so there is some balance and that they aren't being over shadowed simply because their voices are not as loud. They may be every bit as important and I believe the importance will grow.

Rodney Howe states, that you will see the kindergarten counts, in terms of education and some request for parenting, and they are significant parts of our recommendation to you.

D.C. Coston, Vice President for Agriculture and University Extension at NDSU. This section is about two major organizations. 1) ND Agricultural Experiment Station/Main Station which are the activities in the Fargo Area along with 7 research extension centers in Langdon, Carrington, Minot, Williston, Hettinger, Dickinson and Streeter and the Agronomy Seed Farm. Those 9 entities together constitute the Agricultural Experiment Station. 2) The NDSU Extension Service and it is those organizations that you created ESBAR to work with and to set priorities for each subsequent legislative session. We will be working out of this book, North Dakota Agricultural Experiment Station and NDSU Extension Service. You were very

supportive of our efforts in making investments into our programs in the 2009 legislative session. We listened very carefully to what you said and we have implemented what you told us to do and within the laws, rules and policies, from which we have to apply, we did it as quickly as could be done. Pages 5 &6, of this book, are details on implementation of the programs you invested in the extension service. Pages 27-29, 31-35, are the details of the programs you invested in and their implementation within the agricultural experiment station. A couple of observations, one of the things that you have done, in making the investments in us, have created quite a bit of optimism and energy in our system. It has caused us to be able to market our capabilities and skills. One thing that is truly heartening to see, as we have filled the position you provided for us, is the outstanding men and women who have applied for positions and the great difficulty we have had choosing among incredibly well qualified people. We are getting the best of the best, literally from around the world to come to ND and work on issues that are important to the future of this state. For that, I want to say thank you.
You also have invested in facilities; there were 6 construction projects that came out of your investment in us last time. The Langdon Research Extension Center and the North Central Extension Center are completed. Work at Williston and Dickinson is well under way and moving toward completion. The Beef Research Facility located just west of the main campus in Fargo is nearing completion and truly is a world class facility. The greenhouse facility, Phase 1 that was supported through you activities in 2005-2007 is in operation and I think, through the feedback we have got, it is actually performing better than was advertized, as far as supporting research and the data that is coming out. Phase 2, which you supported in the 2009 session, is well along and should be finished by about the end of this coming summer. We have a pent up demand for that space and will be ready to fill it as soon as it comes online. Our commitment is to do good things. Crop varieties are an incredibly important part of what we do and much of what is produced in ND has come from the outstanding programs within the agricultural experiment station. New concepts for feeding livestock are important. For extension in any one year, we have more than 500,000 face to face contacts with citizens of this state and beyond that literally millions of contacts through internet and other types of electronic connections. The 4-H program is developing young men and women for a bright future in this state. I hope the many of you visited our booth in the Great Hall, to visit our booth that showcased the work we have done around flood preparation and also following the particularly the 2009 flood across the state. We try to anticipate what the states needs are and be responsive. I appreciate your support.

Duane Hauck, Director, NDSU Extension Service, will talk about proposals for next biennium. The folks that comprise the extension service continue to work hard to serve the needs of our citizens across the state. I would like you to go to pages 13-24 in your book. It contains some additional impact information of extension activity that has taken place the past biennium. I want to thank members of the committee for actively participating in the reporting sessions that out county extension offices typically host with you and their county commissioners. Dr. Coston commented on the flood situation. The extension service is here to serve the people. In crisis situations, like we have experienced a number of times and like some parts of our state, are anticipating again. The extension service viewed that as part of their role to help address issues using good scientific based information. I am going to try and focus my comments strictly on the programmatic request that ESPAR has identified and prioritized and brought before you for the extension service. Those requests are summarized on pages 7 & 8, with more detail shown on those requests on pages 9-12. **Initiative #1. Infrastructure Initiative.** That was recommended for funding in the Executive Budget and

was also approved by the House. It is an initiative that requested technical support for an extension specialist. **2a. Initiative**. Spoke to the issue of SBARE regarding soil health. He talked about the magnitude of this issue across our state. We have observed, based on some of the anecdotal interaction that our extension agents were having with local soil conservation, and putting on activities such as covered crop workshops and the strong level of interest by landowners on these topics. Recently, our folks worked with the University of Minnesota and they brought over some of their experts and hosted a drain tiling workshop down at the State School of Science in Wahpeton. It sold out and filled up. They scheduled a second workshop and that sold out too. It shows the level of interest that our land owners and farmers have in these topics. The needs have been well quantified both by soil conservation community and NDSU. We have not had the staffing support, in place, to effectively provide the support to our soil conservation county agents and others to effectively work with landowners and farmers on addressing this topic.

2a. Soil Health and Land Management was the extension portion of addressing that need. It was prioritized very high by SBARE and again it was recommended for funding in both the executive budget as well as by the House. **2b. is a Livestock Stewardship Initiative** that came up regarding that much of the national attention placed on this topic. Many states passing state laws, directing proper animal husbandry practices. Our concern, that here in our state, we think we are doing everything right, we think our livestock producers are using the proper and the most up to date livestock stewardship practices but we need to make sure we are out in front of this curve. We need to make sure this technology changes as information changes and we can make sure it gets disseminated out to our livestock producers. We needed someone to provide the technical leadership in this area. We really don't have anyone doing that, at this point. This was the initiative that was to develop, in concert, with our animal sciences department to try and address that issue. This initiative was recommended for funding in the executive budget but the House budget did not include it. I am going to talk about a couple more that weren't in either the executive budget or recommended by the House. I need to speak to item **#3a. Agents-in-Training and Summer Internship Program.** As you look across our extension system across the state, some 35+% of our extension agents are eligible or will be eligible for retirement in the next 5 years. Right now we have 5 county extension agent positions that we are currently filling, where agricultural agents have retired. It is a challenge trying to fill those slots and keep the program going, without a hiccup. What you end up doing is bringing in brand new college graduates that haven't a lot of exposure to this type of work. This program is designed to allow us to hire young people into the extension system, have them work in a county extension office for a year or so, alongside an experienced extension agent and then become candidates for county extension agent openings. We brought this forward last time and you were very supportive and you funded one extension agent position in the last session and what we brought forward is the balance of what we requested last time and is funding for 4 additional. If you look across the state, we have some 100 county extension agents in agriculture, family consumer science, 4-H and nutrition. I am trying to have 3-4 agent-in-training positions in the mix would be extremely beneficial for us to keep those positions filled with good, qualified individuals. The other item I want to comment on is **item #5. Health, Wealth and Quality of Life for North Dakotans.** The extension service has always had a program in the field of what was called Home Economics. Today that is called, Family and Consumer Science. In our program area, that is prioritized within that discipline, typically deals with family economics, family education and nutrition. Those are three major focuses of that program. Our family education component has established a network of parenting centers across the state, mostly on the back of

competitive funds, and it is a very skeleton network across the state. It is not fully staffed. There are 8 regions in the state and we have about 3 full time people and a number of part time people working at those centers. One of the programs they undertook this past biennium was the "Gearing Up for Kindergarten", where basically; the state identified the need for school readiness support in the state. The national research shows how well a child does in school can be strongly influenced by how ready they are once they enter kindergarten. How well a child does in the 3rd grade is a predictor of how well they are going to do in high school. How well they read, by the time they are in third grade, they have to read to learn and they still can't be learning to read in the 3rd grade. The national data was strong that this is a key need area. Our folks developed the pilot program called, "Gearing Up for Kindergarten" that was designed to address this. One of the key aspects of the program is that it requires direct parental involvement. This is not a pre-kindergarten program, it is a parenting program. It was conducted on a pilot basis over the last biennium and the results were quite significant. They did a controlled group, of lots of families wanted to get into this program, but we only had a limited amount of space and those of you that serve on the educational improvement committee for the state, have heard of all of this. The control group showed that the families that went through the program did significantly better in 12 out of 13 readiness area than those who did not go through the program. The governor and your commission on school readiness studied this program over the past biennium and recommended that it be made available to all the schools across the state and asked the extension service if we would be able to deliver it. We indicated we would if there was adequate funding to support it which included the funding support we needed in item #5 for our parenting resource centers. What was included in the executive recommendation and the House did approve it, was a "Gearing Up for Kindergarten Program" that provided $830,000, which is a very positive thing. Out of the $830,000, $500,000 is pass-through money, to be used to support the cost of teachers at the school level to help deliver the program. The program is 16 classes. It is not a one shot thing. There are 16 classes that a parent and their 4 year old child, go through together. $330,000 is the amount we identified that we would need to do state wide coordination and provide the research component to measure the impact of this program, once the program is down the road for a year or two. The $830,000 was included in the extension budget but there was no money included to support our parenting resource centers, which are really the network of people that we are dependent on, to deliver this program on the regional and local level.

V. Chair Bowman states when you started this parenting class, I don't ever remember you talking about pre-kindergarten. It was to help young mothers to adapt to motherhood with the babies and the problems they have because of two working families. I didn't support that, now I see that is a preliminary to another program coming along to expand and grow that. I don't know what it takes to teach a 4 year old to get ready to be 5. I don't understand where the bottom is to education system that we think is so important that we spend thousands and thousands of dollars because kids adapt when they get in school. They will catch up and they do if they have parents that care.

Duane Hauck states, yes, our parenting program has been a big part of the family education component of the Family Consumer Science Program and Extension has always focused on the full gambit of parenting, from birth until teenagers. The focus here is early childhood education. That is why this program was developed and piloted. The focus is not on teaching the child, it's the parent and child together. So much of that is not taking place today. What we

found in this pilot, they had to pay to go through it and 90 % finished. The feedback we got was extremely positive for us to continue to offer this.

V. Chair Bowman states that it balloons out into being a massive program and then the next time someone comes in here and they say, but our colleges need more money. We have huge need. We keep funneling things out to these programs that get to be big programs and then when we get down the basics of education, we don't have the money to fund that properly because we are limited. I don't know where it is going to end and where we are going to start.

Duane Hauck states, the money that was identified in the "Gearing Up for Kindergarten" program, the $500,000 that I said was going to pass through to the schools to offset the teacher cost that will cover about 1/3rd of their costs. It is their expectation that the schools will come up with 1/3rd and that the parents will come up with the other 1/3rd. So it is sharing in the cost is the plan that is in place for taking this program statewide. There is no way the $500,000 will cover the cost of the total. We are looking at 125 schools per year that we are going to try and reach with this program. It is basically intended to be state support for one third the cost, the school district, one third and the parents, one third.

Senator Wardner states he wants to emphasize that it is not as much about the child as it is about teaching the parents to work with their children when they go to school.

Duane Hauck states, that is exactly correct. It is a parenting program focused on early childhood education.

Senator O'Connell states I remember on the Commission on Education, it was 4 pilot projects, 2 from the largest schools, two from the smallest schools and it was after school programs, where the parents came in with their child. So now you are saying, you need $500,000 more to start that program.

Duane Hauck states, that is correct. The funding that is being requested is to make the program available statewide. It was piloted in several schools and there was a strong evaluation component done with the pilot. The results were very positive and that is what the commission studied. The commission's recommendation and the budget support, the $500,000 and $830,000 I am talking about, was to make the program available statewide. The target is to try and reach 125 schools per year. The other piece of the extension budget I would like to bring to your attention are the Capital Improvement and the Onetime Needs and one additional request for extension, that showed on page 79. 4-H was talked about earlier by this committee and we thank you for the past support that this body has given to the 4-H program in ND. Our program is very strong and it is doing great things. One of the gems of our programs is the camping opportunities, the 4-H camp program, that we have here in this state. We have one 4-H camp; we use to have 3-4 regional bases, over time that changed because of cost and basically one 4-H camp located in the central part of the state near Washburn, ND. This camp was established in 1969 and it served us very well. The camp facilities are the same today as they were in 1969. What we have to do is keep a 4-H camping program going in the state and research has shown, other than the 4-K club experience.
The 4-H camping experience is where you can have some of the greatest impact with youth. In order for us to keep the camping experience going, we need to do something to the lodging facilities that we currently have at that camp. We are on the edge of not having something that

is not going to work anymore. The extension service worked closely with the 4-H community and a long range strategic plan that was done 6-7 years ago. One of the major components for that camp was the identification of a 4-H living/learning center that would not only provide lodging support but indoor learning space. We worked on putting together a proposal. The learning center is actually featured on Page 87, the concept we are talking about. We talked at length with ESPAR about this and they did approve the extension service coming forward with a request. The cost of this learning center is $3.8M and the ESPAR request allowed us to request $2.5 M from a state appropriation with authority to raise the balance through special funds. That was not included in either the executive budget or in the House recommendation. At a minimum, the 4-H community is going to have to do something to address the lodging facilities that we have at this camp, if we are going to continue to use it. At a minimum, we need to do some restoration to the 3 cabins that are currently being used at that facility. The only other thing I will comment on is the Interactive Video Network across the state that NDSU Agriculture has put in place at both our research extension centers as well as at county offices, has aging equipment and the equipment is no longer serviced. The IT folks, here at state government, gave us a clear signal that we ought to be replacing that equipment. So the request for $262,000 is the cost needed to upgrade and replace the interactive video equipment at 20 sites across the state. Finally, the state soil conservation budget is within the extension service budget and that program continues to address conservation needs at the local level, making available district technician grants to soil conservation districts. The request by districts continues to exceed the funding that is available to honor those requests. So ESPAR authorized $150,000 request to be included in the extension budget to go to soil conservation. What was included was $50,000 in the executive recommendation and that also was approved by the House.

Chairman Holmberg states the subcommittee would like to have additional data on salaries for the technicians who work for soil conservation. I did announce who is on the subcommittee for HB 1020. Senator Bowman, Chairman Holmberg, Senator Christmann and Senator O'Connell.

Duane Hauck states, he can gather that material.

Ken Grafton, Director, North Dakota Agricultural Experiment Station. I will limit those comments to the governor's executive recommendation and changes in the House recommendations and some items not funded in either category. On page 39, the governor's recommended budget included the green house utilities, enhancing soil productivity and land management for future North Dakotans. This would be the Experiment Station component of a broad based initiative including both the Experiment Station and the Extension Service, to provide the information, knowledge and technology to allow our landowners, throughout ND, to better utilize their land and minimize the very negative impact of soil solidity and sodicity on their land. Chairman Hogue, indicated that by just increasing our productivity very slightly, would improve the overall value of the ROI, with respect to increased productivity. A detailed study was conducted in the Red River Valley, where there are 2M acres that are affected. If we could minimize that soil solidity, just in the Red River Valley alone, an estimated $10-20M in productivity could occur. There is a lot of land that is affected just west of the Red River Valley in soil solidity and sodicity. This is a broad base program that would involve not only scientists and technical support staff at the Main Station, but also many of the research extension centers. We need to have "boots on the ground" to work with our landowners,

farmers and ranchers throughout the state to address the issues on a more localized basis. The third item that was included in the governor's recommended budget is on page 40. That would be identified as **Infrastructure**. It would involve equipment, operating, graduate students and office support staff. We have a revolving equipment fund for the Main Station. We have revolving equipment fund for the Research Extension Centers and it is very important for us to allow us to move our research programs forward. We have to have the latest and state of the art equipment to allow our scientists and technical support staff to carry out their work for the betterment of ND agriculture. So we would request an increase in funding of both the Main Station revolving equipment fund and the revolving fund for the Research Extension Centers. We are requesting in this package an increase in our formula based operating funds on a scientist's year basis from $8000-$10,000 per SY, to allow our scientists an opportunity to carry out the preliminary research so that they would be successful in obtaining competitive grants. Another component of this is our graduate student pool. Graduate students are a very cost effective measure of moving research programs forward. It also gives our students an opportunity to learn more about research activities and research opportunities. It is very important for us as a research organization but also as an educational organization to train our graduate students so that we can provide the next generation of scientists will allow our successors to be successful in agriculture in ND. This would be a pool of money. These funds are identified as FTE's but they are not eligible for health insurance or retirement contributions. As I indicated, they are very cost effective measure of moving research forward. This would be a pool of money that would be made available throughout the Experiment Station and including the Research Extension Centers. Finally, we are requesting, and included in the governor's recommended budget and in this infrastructure initiative is an office support staff initiative and this would be 5 office support staff in the Main Station. These positions were eliminated in the 2003-2005 legislative session and we are requesting those to be included because of the fact that we have our scientists that are doing clerical work and not being able to carry out the research and working on competitive grants. In summary, initiatives 1, 2, 3, were included in the governor's recommendation.

Senator Christmann asks, they are in the engrossed bill and the House left those alone?

Ken Grafton states, I will carry that forward. Yes, I can do that now if you like. The House left the governor's recommended budget intact. So there were no changes in the House recommendation to the governor's recommended budget for the Ag Experiment Station. The 4th initiative is improving the state's economy by enhancing crop development efforts. It is very important to ND agriculture. We grow 42 different crops in the state and we lead the nation in the production of 14-15 unique crop commodities. It is a very innovative approach to enhancing our competitive edge, with respect to other states. It is important for us to maintain technical support staff for these programs. I know the FTE's are difficult at this point in time but we need to have technical support staff to allow our scientists to be as successful as possible. I will indicate, at this point in time, that the House included a component of this, of Initiative #4, by adding a canola breeder at the Main Station and that would be a component of Initiative #4, that was $210,000 for one FTE at the Main Station and gave us authority to use special funds for 2 technical positions, one located at the North Central Research Extension Center, near Minot to work on canola and one located at the Main Station to assist the breeder in developing new materials for the canola industry in the state. This is a very important industry. Finally, I would like to make a comment, in terms of programmatic issues, on Initiative #5, which is on page 41, which is improving animal productivity and livestock

stewardship. This is a companion piece to the extension initiative, 2b, which was not included in the House recommendations. This is the research component of the Extension Initiative. In order for us to carry out Extension programs, we need to have the latest research to ensure that those extension programs are successful. Including the Initiative in the Experiment Station would be the technical support staff and the scientists to carry out research in expanded beef cattle finishing, in a way that we can allow for appropriate stewardship mechanisms and environmental interactions, carrying out research and environmental interactions, which continue to be a problematic issue, with respect to certain communities in the state of ND. There are a number of impact statements identified throughout this budget book. To summarize, the governor's recommended budget items, included items, 1, 2,3 and the House included the canola breeder initiative #4 and I will mention, at this point in time, the House also included, $800,000 from the oil trust fund to the Dickinson Research Extension Center to offset reduced revenues that are occurring from the oil well at the Dickinson Research Extension Center. This would be onetime money for this biennium and I would hope there would be a more permanent solution to this that we can bring to you in the 2013 session. The House also included $125,000 for Initiative #9, page 42. A position in the State Data Center to carry out both office activities and research for the Center, which is a federally mandated program, without much additional monies, for their activities. Page 81, Capital Improvement Projects for the Main Station. There were 3 initiatives brought forward and the only one that was included in the governor's recommended budget is completion of the Research Greenhouse Complex at the Main Station in Fargo. That would be approximately, $6.991M in general fund, completion of the program and authorization to use $2.5M in other funds for construction of a BL3 facility. This was included in the governor's recommended budget. This would bring a state of the art facility to the campus and one of the few facilities in the world, that would have bio safety level 1 or conventional greenhouse space, bio safety level 2 for us to allow work on invasive species and transgenic organisms and bio safety level 3, for some very severe invasive species. It is one of the few facilities in the world that have all three at the same time.

V. Chair Bowman asks, is this is in the governor's budget to finish the project? The answer is, yes. Will this be final?

Ken Grafton states, at this point we have no intention of coming back and asking for additional greenhouse space in any future session. We take a serious look at those facilities; we would not bring forward anything relating to the greenhouse space.

V. Chair Bowman states when you do this you have to utilize it.

Ken Grafton states, as you take a look at our budget initiatives, you will find that there are very few scientists that are actually identified in the initiatives. Most of the FTE's that were requested were primarily technical support staff to work very closely with our current slate of scientists. We have very good scientists at ND Ag Experiment Station, both at the Main Station and Research Extension Centers. Our limiting factor right now is adequate technical support staff, to allow them to do the work they should be doing. In terms of the facilities, we are very pleased with the facilities that we have in a general fashion. There are needs obviously. I will bring some of those needs to you now if you would like.

V. Chair Bowman states, I am very pleased with the facilities.

Ken Grafton states, the research greenhouse complex, the final phase, is included in the governor's budget. There were 2 other initiatives, capital improvement initiatives that were identified by ESPAR and prioritized by ESPAR. One was to establish agronomy laboratories at Carrington, Hettinger, Langdon and Central Grasslands. Many of these facilities are old, antiquated and just not conducive to carrying out 21st century research using antiquated 20th buildings. Some of them are potential health hazards and we need to make sure that our scientists and our support staff have the appropriate facilities. I will mention, at this point in time, that the House included $2.25M to construct the agronomy lab at the Carrington Research Extension Center. The House did not include any other funding for agronomy labs at the other centers. The last item that was identified, as a capital improvement project, was seed conditioning plants at the North Central Research Extension Center, the Carrington Research Extension Center, Williston and the Langdon Research Extension Center. Many of these facilities are old.

V. Chair Bowman states, after I toured the grain cleaning facility in Minot, I realize the need for that. Has any one checked into a portable grain cleaning facility that could move from station to station so that way everyone can take advantage of that?

Ken Grafton states, Representative Skarphol did ask for information regarding that very feature and it was offered to him and we can offer that information to you as well.

V. Chair Bowman states, to be able to save some money and give them what they actually need in the cleaning part of it and reinvest some of the other money in some of the other projects.

Ken Grafton states, we would work with the legislature to best manage any option available. On page 89, **Special Assessments**, due to an upgrade on 12th Ave N, the station was assessed at $555,336 for that upgrade and the payment schedule for 2011-2013, is $82,402. We were made aware of this in late January and we were unable to bring this information forward to the House, due to the late knowledge of the information. So I am bringing it to your attention at this time.

Jay Fisher, Director, North Central Research and Extension Center. On page 40, #4, the Canola Initiative. There are people here from the canola board and chairman of their advisory board is here, but we are not funded for the person who is actually working there, named Angela Sabalias, at the NC Research and Extension Center right now. We would like to include funding for that. On page 70, you will see a NCREC future critical issues. Each one of our centers has the impacts, their success stories and also their needs. Page 81, we are thankful for that wonderful Agronomy greenhouse. We work very closely with them and pleased that the House put in for our colleagues at Carrington. We are enjoying our agronomy lab. They are building one at Williston and Carrington is next. There is that same $3M facility that is listed on page 82, and there are folks that would like to address that topic. The interactive video equipment is older and we cannot get parts anymore. Page 95, is the Budget for all Research Centers.

Paul Nyren, Director, Central Grasslands Research Extension Center, Annual report of CGREC, may be the last time to express my appreciation for this facility. Testified in favor of

HB 1020, Main Station. The Central Grasslands was established by the 45th legislative assembly and occupies about 5300 acres in Stutsman and Kidder counties. We have a producer advisory committee that helps advise us on research and facilities at the Center and we take that advice very seriously. Beginning in 1981, there were 3 full time positions available at the Center and we now have 10 full time plus the students and summer staff that come to work at the Center. During this time, we have had over 30 graduate students and visiting scholars have conducted research at the Center. Central Grasslands has one critical need. We are very short of technical help. We have a number of research projects, not only for the scientists at the Center, and we have 4 scientists at Central Grasslands but also cooperative projects with members of the NDSU faculty and institutions from around the country that come to the Center. We have a livestock herd, that for most of the year, numbers over 1,000 head and yet we only have 2 full time funded technicians. Those people have to take care of the facilities, crops, as well as the livestock research. It means that these scientists, have PHD degrees are mending fences, weeding plots and doing that type of work along with their science work. While they are not above that type of work, it is not the best way to spend the states money. The other thing that we heard amended was the 4-H agronomy labs and the House did fund the 4-H agronomy lab in Carrington but we would ask that you consider adding the ones for Hettinger, Central Grasslands and Langdon because these are very desperately needed buildings and would assist greatly in these new scientists carrying out their duties to do the research at the Centers.

Chairman Holmberg states, I was the only one around this table that voted to buy the land of the Streeter grass lands.

V. Chair Bowman asks, have you looked at the new research facility at NDSU? Paul responded "yes". Do you see a future with that and the type of cattle you are raising and is there a way you are going to be able to utilize the research that is done there and be able to help the ranchers out in your area with the results of that?

Paul Nyren states, absolutely, we have redirected our funding to hire a new animal scientist. He is working very closely with Greg Lardy and others at the Main Station and there is no question that will happen.

Senator Warner asks, are these FTE's we are adding, is it fulltime positions with benefits? The response is, that is correct.

Kris Ringwall, Director, Dickinson Research Extension Center, Extension Specialist within ND. Livestock My three points are: 1) the continued encouragement of what you have already heard and our support and others for the expansion and what we can do to help agriculture within ND. We appreciate that and will continue to look forward to working within the state for many years. 2) This is more specific to the Dickinson Research Extension Center. Page 58, you will see agency overviews and one of the critical issues that has been identified and continues to be identified for the Dickinson Research Extension Center is our income issues. I have provided for you information on our income scenarios for the last four fiscal years as well as projecting into the next fiscal year. 3) Page 9 and page 41, you will notice the livestock stewardship and animal productivity initiatives there. I handed out a "Calving Book". This book hold 170 calves, in terms of a producer in ND, and many of them will certainly use one or two of these. That is about $150,000 to $170,000 worth of income for them. It is fairly

significant. The reason I want to make that point is we are losing calves in this state. We are going down in the last couple of years. The cow/calf business is one that we really need to keep on the radar screen. We struggle in the livestock industries and the cattle industry is no exception to that. When you look at livestock producers out there today and they are asking serious questions about whether they should continue in the livestock business, our answer is a resounding yes. We need to be there for them and need to offer them programs and help and assistance. If you look at book, I said $150-170,000; it is about $250,000 of income. You add on some of the value added aspects of this business and open up our business to international markets and other things. It is a very important industry and I would encourage you to strongly consider anything you can do for that industry.

Tom Teigen, Director, Agronomy Seed Farm. The agronomy seed farm operates about the same as a commercial farm as any entity in the ND Ag Experiment Station. Our goal is to grow seed of crop varieties, which will be in demand during the summer. Condition the seed and have it available for the seed industry the following year and sell as much of it as we can to support ourselves and repeat the cycle for the next year. In addition to this, we serve as a support group to the research effort of the NDAES by providing rotational land for research plots, helping prepare the plot land, providing some support for the plot care during the summer and harvesting remnant crops after the researchers have finished their work. The seed is sold at a premium price, which covers our cost of production, and the extra effort required to produce foundation seed. Foundation seed is the parent seed of all public varieties that are grown. Any seed not sold is carried to be sold in subsequent years until the variety loses its popularity at which time we can sell it as commodity. With this type of existence, it is apparent when the crop economy of ND flourishes, the agronomy seed farm flourishes as well. This has been the case for the last few years. We have favorable environmental conditions, which has enabled us to produce above average crops and the prices have been relatively good, which has enabled us to build a comfortable financial base on which to operate. The current state of our facilities is adequate to carry out the mission of the Agronomy Seed Farm, to produce condition and cell foundation seed and support the research mission of the Experiment Station. Particularly, as it relates to variety development. The budget request before you should enable us to carry out our mission, as we have for the past 60 years, of our existence. That is to be self supporting without any general fund support and covering all our costs incurred in operating the farm.

Chairman Holmberg states there is no change in the budget.

Chairman Holmberg closes the hearing on HB 1020.

2011 SENATE STANDING COMMITTEE MINUTES

Senate Appropriations Committee
Harvest Room, State Capitol

HB 1020
03-24-2011
Job # 15968

☐ Conference Committee

Committee Clerk Signature MSW. Alice Delzer

Explanation or reason for introduction of bill/resolution:

A SUBCOMMITTEE HEARING IN REFERENCE TO THE AG EXTENSION AT NDSU.

Minutes: See attached testimony. A & B

Chairman Bowman called the subcommittee meeting together at 2:30 pm on Thursday, March 24, 2011 in reference to HB 1020. All conferees were present. They are Chairman Bowman, Senators Christmann, Holmberg and O'Connell. Tammy R. Dolan, OMB and Sara Chamberlin, Legislative Council was also present.

Dr. Dean Bresciani: President of NDSU. We have with us today, representatives of all the agencies representing 1020, with the exception of the state forester. I didn't believe there would be too many questions for him and hated to bring him down this far; he is a one man shop. No one is home when he takes off. At this point it sounds like you'd like to start with the Agricultural Extension and Research which would be the meat of the order and asked them to cover the changes from the House bill.

Dr. Ken Grafton: Director of the ND Ag Experiment Station and Dean of the College of Ag. You asked what was in the House adjustments to HB 1020 and what the House added to 1020 is a $210,000 for a Canola breeding position that would have been in initiative # 4. That's a very broad based initiative but they only added general fund monies for the Canola breeder.

Chairman Bowman: $120,000?

Dr. Grafton: $210,000 and then authorization using special funds of $280,000 to hire two additional support staff. One that would be located at the North Central Research Extension Center; and one at the main station, but those are special fund monies.

Chairman Bowman: Was that rated under State Board Agriculture Research and Education (SBARE) at all?

Dr. Grafton: Yes, that was in initiative # 4 on the experimentation station side.

Senator O'Connell: Those two, are they classified as full time or as part time? **Dr. Grafton**: The general fund position, the canola breeder would be full time, the two special funded

positions which would be hired from community grant monies or other monies would also be full- time. The house also added $120,000 on initiative # 9. That was to the state data center requesting two positions for a total of $250,000 per biennium. The House added just one position at $125,000 that was again the initiative # 9. The House added $2.25 Million in the capital improvement project for agronomy laboratories. This would be an agronomy lab at the Carrington Research Extension Center.

Senator Christmann: That agronomy lab, does that have the greenhouse too, or is it just the lab part?

Dr. Grafton: There would be a small greenhouse associated with it for plant pathological work. That would've been in the capital improvement project request list. Finally the House added $800,000 out of the oil trust fund to the Dickinson Research Extension Center to offset the reduction and oil revenues from the oil well that is in Dickinson. Those monies are used for operational monies. **Senator Bowman**: This is the 3rd time, we've done that. **Dr. Grafton**: It is the third time. That was it for the experiment station.

Chairman Bowman: The ones that were in there in the governor's budget that we don't have to go through them again, so we know there in the budget then it will make it easier for us to finish our job. **Dr. Grafton**: Turn to page 112 in book, the governor's budget recommendation was to include items #1, 2, 3. and these are greenhouse utilities at $173,622 enhancing soil productivity and land management at $1.41 Million; and infrastructure which would include equipment operating grad students and office support staff at $1.88 million dollars.

Chairman Bowman: Is the final stages of the greenhouse in the budget someplace? **Dr. Grafton:** That also was included in the capital improvement project list, Senator Bowman and that will finish that project when that is completed, we're all done?

Dr Grafton: That is correct. That's at the bottom of page 112, where you would see capital and one time funding increases. The research greenhouse complex is $6.991 Million and then an authorization of spending $2.502 Million for the BL3 facility.

Chairman Bowman: Are the first two stages of that being used yet or is Phase 2 still not quite done**? Dr. Grafton**: Phase 1 is fully occupied. Phase 2 is not yet available to us, it is still under construction. **Chairman Bowman**: Does anyone have any questions? We know what was in the Governor's budget and we know what was added from the House, so after we get all done with this day to day we'll review all of those things and see if that's what we want to do or if we have some changes that we'd like to make.

Senator Christmann: The $490,000, on # 4 research centers is that out of $2.7 Million. Is that something that is there and doesn't accomplish anything or does it accomplish something at Dickinson, because the REC's? What was the governors' plan for funding their operations when that was not included?

Dr. Grafton: That initiative # 4 was broad based for cereal and other crop improvement activities, including plant breeding, cereal quality as well as plant pathology. One component of that was the canola breeding effort and the request was for $490,000 for the individuals. So in answer to your question, would that accomplish something, absolutely it would be very

important to the canola industry in the state to have a canola breeder located at NDSU to develop materials that would be ideally suited to North Dakota as opposed to importing materials from Canada that may or not be as adaptable to the North Dakota conditions. So it is important to that segment of the industry. It is important as a component of the overall broad initiative. The broad initiative would be great but if we can get a component of that; that's a stand alone. Each one would've been a stand- alone issue. With respect to the $800.000 for the oil trust fund, that was brought up after the SBARE process, it was not included in any discussion with the governor's budget and I believe this was a situation where as Senator Bowman said, this was handled in a similar fashion , the 3rd biennium that happened. I believe that the individuals at the Dickinson Research Extension Center felt it was going to be handled in that fashion as well this year. Senator Christmann and Senator Bowman, during the House meeting the Chairman of the State Board of Ag Research and Education, Rodney Howe indicated to that subcommittee that in the next phase of the legislative session prior to that, this would become an SBARE issue and it would be addressed by SBARE.

Senator Christmann: If we were to restore #2, the livestock stewardship, and the extension, I am interested in how SBARE with the divided areas. Then the livestock stewardship was #5 on the research side, so does that leave us to get word out about something that we didn't figure out yet. We didn't do the research and if we do something with the research component, is it an $810,000? Or doesn't it really pay to start situation or in poorer case scenario, if you can't get $810,000, what would it take to accomplish something on the research side in that line item?

Dr. Grafton: It's critically important to get the extension component of this livestock stewardship issue reinstated. I think that the $250,000 to the extension service would be very beneficial to the livestock producers in the state, because we are being inundated with information about misuse of livestock and it is important for us to make sure that we deal with this in a proactive fashion. The Extension service has information from other sources across the country that would allow them to develop the educational materials to help address those issues and to provide the information to the decision makers in the state and counties. So that is in my opinion is critically important. In addition it would be very important to have a research component, associated with that extension effort because ND and the North Dakota environment are a little bit different than the environments in other states. It is important for us to have research based in North Dakota to help address those issues. I talked at length with the Chair of the Department of Animal Science, Dr. Greg Lardy, and he feels very comfortable that if a component of that or a portion of that could be funded a reasonable effort could be made to provide the information to the extension service to move forward. It wouldn't resolve the issue on the research side entirely the $810,000 is for a full fledged component or a full fledge initiative, but if the legislature didn't feel comfortable funding it at $810,000, a component of that 2 technicians at $ 240,000 per biennium would help address the issues until the next legislative session.

Senator Holmberg: This budget was one of very few that was increased in the House. Most were substantially reduced, if you want to add initiatives in the Senate what items that the House added in, would you be willing to forego to cover the costs of additional enhancements?

Dr. Grafton: May I get back to you on the answer.

Senator Holmberg: I noticed there was the state data center initiative of $125,000 and the footnote doesn't say anything. I don't know if you mentioned what that specifically would do? Could you direct me to where I should look to it?

Dr. Grafton: The $125,000 request was half of the request, for the state data center for 2 research support staff positions that are critically important in the maintenance in the of the state data center. The House chose not to fund that program in its entirety but to provide only funding for one position at $125,000. It is on page 112, but the activity itself with the description would be on page 42.

Dr. Duane Hauck: Director of the NDSU Extension Service: Again on page 112, the House amendments for the Extension Service are shown in the third column. The Extensive Service is the middle portion of that table. The only change that the House made to the Executive Budget in the Extension Service budget was the removal of item #2B, the livestock stewardship initiative of $250,000. Everything else that the Executive budget recommended stayed in.

Dr. Duane Hauck: What was added, if you look on the second column of the middle section what the Executive Budget did recommend is funding for items #1, 2A and 2B, in the extension service budget. Number 1 is $450,000 to provide technical support for an extension specialist, and plant scientist, plant pathology, entomology, and nutrition; Item 2B, is the soil health initiative that complements the research component as the soil productivity initiative at $690,000, and then the livestock stewardship 2B, at $250,000 which was removed. In addition the Executive Budget also recommended $830,000 to support the gearing up for kindergarten program, a pilot program that extension conducted over the last couple of years. There is very strong research that shows the positive outcomes of that program. I believe it was the Governor's Committee on Educational Improvement that thoroughly reviewed that program and asked if we would be able to take it state wide. We indicated that we would with funding to support that. That is where the $830,000 comes in at. The last thing the Executive Budget recommended was $50,000 for soil conservation which is also in the extension service budget. **Senator Bowman**: They were asking for $150,000? **Dr. Duane Hauck**: That is correct.

Senator Christmann: On the Gearing up for Kindergarten, it does seem to have merit, but to the extent that you're doing it now, how is that in your budget just like a line item somewhere of general fund money? Now for the whole jest of the question, sometimes people think well, you're doing whatever for education, why are you doing more? Well maybe it's because it's over in the agriculture extension budget. If we're going to do this, should it be in education funding somewhere and then become like a special fund to extension so extensions can do the job, but it shows up in education?

Dr. Hauck: How the funding shows up to support these efforts, is a good question? I would say this, The Gearing up for Kindergarten program was implemented on a pilot basis by the NDSU Extension service with grant partnership that we received from Health and Human Services and from the United Way in Fargo. What was identified and which the research points out is that a fairly significant number of children entering kindergarten, 48% shows either have a difficult time or struggle entering kindergarten. The data also shows that they really don't catch up if they start out behind. Our folks in looking at the research put this program together implemented it on a pilot basis with the grant funds previously mentioned and I believe it was

implemented at 20 school sites. A very thorough evaluation was done with the program implemented. The feedback and the outcome were very positive and how much better the children and their parents were able compared to the control group. Whether or not the funding should flow through us or flow through commerce, I would leave that as an open question for you folks to decide, but I would say this it always has been a responsibility of the extension service to deal with family living. Our programs go way back to our start in programs called Homemakers, Home Economics and that whole area has really evolved with the times. It is in Family and Consumer Science, the research base that those programs function out of. The Department of Human Development and Education at NDSU is the department that houses that discipline and extension has always had a strong connection to what that program area can provide to families in individual states. It is not just in North Dakota but every extension service. So whether or not the funding for this specific program should flow through us or have it flow some other way, I am not to say, but I will say this, the extension service I think can be a very strong delivery component for this program and using the research base we have through NDSU.

Chairman Bowman: Another bill that was given to us that deals a lot with similar items for prekindergarten is the Head Start Program. I know you told me the difference between them, but when you read the directives of both of them there are a lot of similar things. You both are trying to help these young kids get started better, so they are more educable when they get into school. We have a job ahead of us to try to decipher this to see what we have to do.

Rod Ballinger: Chairman of the Grape and Wine Program. I am here for the $250,000 for our grape research and evaluation. We have passed out a budget that I worked with a team leader at NDSU. This is just a proposed budget of course and any expenditure from that has to come from our committee at the direction to NDSU as a priority with the team leader. Our research of course with our grapes is a very flexible and fluid field of study so we have that option of doing this.

Chairman Bowman: The original appropriation was that a one- time request? This is a private industry right? **Rod Ballinger**: Yes it is. **Chairman Bowman**: We have some fine lines that we have to careful with when we're dealing with private industry; start up and helping to get boosted is one thing; but them coming back repeatedly. Any business can survive if you can get enough general fund money to make it work. So, I want to be up front with you, I am going to check back on the records to find out what the original request was so that we're all on the same page when we get done with that part of the bill. But, I wanted you to come in and explain yourself to this committee. **Rob Ballinger**: The original bill was a 4 year bill that was only funded for 2 years for $250,000. That is why we requested this $250,000 for the next biennium with the extension. We are in discussions right now with agencies, the Department of Agriculture, Department of Commerce to find a home or umbrella for our industry. This probably won't be an every time deal.

Chairman Bowman: Who else would like to testify on the bill the way it was presented from the House. **Senator Christmann**: Refresh my memory, besides these changes that the House made from the Governors budget, on page 112, was there other things in here that we needed to focus on or is it mainly these priority lists of extension and research?

Chairman Bowman: What my intentions are is to find the changes in the bill itself. Then we have to look at what we think is important if we want to change something that was changed or take something out of the original budget and add something that we have a higher priority. But to do that, first of all you have to understand what was done to the bill, because what we need to get too, at the end of this is the bottom line. That is what we are looking for with the additions or the subtractions is where we're at with the bottom line. There is another request from the Dept of Ag that has to do with a feed study dealing with molasses. Anyone have any info at all?

Dr. Grafton: I don't believe that we're familiar with that.

Chairman Bowman: I was wondering where he came up with this idea and how it would fit into agriculture research and the beef center because if it's an additive that can give us results from blending it. They fed molasses to cattle, for a long time in various forms but this is a study and I think the request was for $60,000.

Dr. Grafton: I did have a conversation with the Commissioner of Agriculture. This study that he is proposing would be carried out at the Carrington Research Extension Center and it's the offshoot of the investigative trip that he had with a number of individuals to Denmark for a bio-fuels program that they evaluated. One of the bi-products of that facility is molasses and the study he was proposing. **Chairman Bowman**: And was that $60,000 the total? **Dr. Grafton:** I don't know what the value of study is at this point. **Chairman Bowman**: Or was it 60 and 20?

Chuck Peterson Department of Agriculture. The estimated cost would be 20/40.

Brian Sorenson: Director Northern Crops Institute. I was working with the Commissioner of Agriculture, Doug Goehring, and there was just an issue that came up at our Northern Crops Council meeting. I was wondering if you're aware of that.

Chairman Bowman: The committee is not aware of it I don't think. What is that you want to have an extension for the board because 6 of them retiring? **Brian Sorenson**: Our Northern Crops Council has 17 members. Six of them are permanent members and I am not talking about those, but we added 4 member seats after the 2007 legislature, and they were all implemented at one time. The situation we've got coming up on 2013 is that we would have actually eight positions open at one time. The council passed a motion basically to request a one- time exemption from the Century code to adjust the terms of up to 4 of the seats, by no more than one year each, up and down. The intention of that is just to tweak things a little bit so that we didn't have a massive turnover at one time. So that was the essence of that.

Chairman Bowman: Right! I should have brought that up its somewhere in this package right here it's there. **Brian Sorenson**: I have an extra copy of the email. **Chairman Bowman**: Please leave that for the secretary please?

Senator Holmberg: I would hope before we get done, we do take a look at the soil conservation services and the amount of money and also passing out background information about the State Data Center for our information as we look at the budget that we have before us.

Chairman Bowman: Most of you know in the past from the budgets going way back Soil conservation never asks for whole lot. We've always tried to give them a little extra because of what they do is important to agriculture too. I think most of you that have been around know that we've up the ante a little bit for them and very much appreciated by those that work out there. It makes you feel kind of good when you actually get thanked once in a while.

I remember when they had a deal in Washington D.C. (Senator Holmberg went there on his own nickel) with the soils and he actually got to see that. But it was an impressive display and we were proud of North Dakota and what they did for us. That will be one of the things discussed. Now I know that there are a lot of other requests in this budget. I've been up to Minot, through the seed cleaning facility up there; I know exactly what the problem is, there is like three or four other ones that are in as a request for this budget. We're going to have a lot of discussion on things like that. Another thing that I know is important and that is something that we'll talk about and that's the IVAN network because of the price of gasoline and the price of travelling to me that would be an investment that would give us payback immediately. The other ones are outdated and not as usable as they were when they were when first put in. I can remember going to Hettinger a long time ago and talking to someone quite a ways away and it was kind of a neat experience that you didn't have to travel there to have a meeting and still look at who you're talking too. So that will be another item that we will discuss because there is merit. Anytime you can do something and make an investment that actually pays us back because of the travel expense alone is something that I think it's important for the discussion. What we do with that is up to this committee.

I understand the importance of this budget and I understand the future of agriculture and am really proud to be able to be a part of trying to develop a long term plan for taking the research and increasing the productivity out there for the producers. The bottom line is profit. What we are trying to do is enhance the profit for our producers by doing we can justify the investment that we're making, so if you all have anything that you would like to get a hold of Chairman Bowman, get my email and write me.

Chairman Bowman closed the hearing. Testimony attached #B child care funding submitted after hearing.

2011 SENATE STANDING COMMITTEE MINUTES

Senate Appropriations Committee
Harvest Room, State Capitol

HB 1020
04-04-2011
Job # 16293

☐ Conference Committee

Committee Clerk Signature Alice Delzer

Explanation or reason for introduction of bill/resolution:

A SUBCOMMITTEE HEARING IN REFERENCE TO THE AG EXTENSION AT NDSU.

Minutes: See attached testimony. #A

Chairman Bowman called the subcommittee meeting to order.Others present are: Senators Holmberg, Christmann, and O'Connell, Tammy R. Dolan, OMB , Sara Chamberlin, Leg. Council. I had a sheet prepared, Testimony attached # A, Listing of Proposed changes to House Bill No. 1020. for all of us, to go through and we can decide on the ones that are going to be off the table, if we can agree these are items we want to leave in the budget, we'll leave in the budget and then we don't have to discuss them. We all agreed I believe, the green house utilities stay in the budget, is that agreeable? That would be the second page on top of listing proposed changes to HB 1020. That was in the request of the Governor's budget. It was also in the House version and in the Senate version. The other one is enhanced and soil productivity in land management; that was in all the budgets. If you have a question or problem let me know right away because they are going to be off the table a soon as we get through with this. The infrastructure is in all three of the versions, equipment operating, graduate students and office support staff. I know over the last few years they've been asking for that and we've only given them a few. Does anyone have any questions about those three items? So they will stay in the budget.

First item up for discussion, we had a request for data center funding of $125,000. Does anyone have any heartburn with that? If you do, speak up now. We all agree that is going to be removed. Remove funding for the House for capital project at Carrington $2,225, 000. Part of it is another greenhouse and our thinking was we spent an awful lot of money and we're not done with the great big greenhouse yet and now we're building another one and hopefully we can fill up the one we have. If you've looked at all of the requests we've got some serious things that were going to have to consider in the long term because there is an awful lot of requests in this budget for various things from seed conditioning plants of $8,400,000; a learning center at Washburn for $2,500,000. We have various other requests for money we can fund even though there very good requests. I said this about 6 years ago, that as long as we keep building buildings we're not going to have the money to fund the research and the research is what we need to fund to get that information out so that our farmers and ranchers can be competitive and hopefully profitable. As we're going through this, keep that in mind we do have a lot of needs. Does anybody have a problem with the Carrington one? **Senator**

Christmann: Are we eliminating it? I don't have a problem. That will be taken out. **Chairman Bowman**: Then we had a request to restore funding for the Livestock Stewardship initiative for $250,000. **Senator Christmann**: Do you have a problem with that? **Chairman Bowman**: No. That will be restored. **Senator Christmann**: I think this would be a good point to intervene with this though or do you want to wait until everything is done but to me is a key part of that element. A lot of that has to do with how do we not only make improvements in livestock stewardship models but also make sure people realize how our livestock stewardship is done. One of the biggest threats to our livestock industry is animal rights issues and I think it's kind of a two pronged thing here and now we've agreed on the $250,000 for the extension part of it, but if you look up at number 5 under research, you still have to deal with Livestock Stewardship and it was for $810,000 request but I really think that the key elements of research that are needed for the livestock stewardship could be done for about $240,000 and I would really like to see us fund that. **Chairman Bowman**: I was going to get to the Livestock Productivity after we get down there, that's a part of it. There's $480,000 in a one line item and $120,000 in operating I believe for that. But we'll restore the Livestock Stewardship and I think we agreed to add the $100,000 of the $125,000 into the Soil Conservation and that will bring them up to what the request was and what was in the Governor's budget. Does anybody have any heartburn with that? **Senator Christmann**: Well on Soil conservation I think the governor's budget only had $50,000. **Senator Holmberg**: We're above the governor's budget. **Chairman Bowman**: Was the request for $150,000 then? The request was $150,000. **Senator Christmann**: What did we do in '09-'11? **Chairman Bowman**: We've always given them a little more; it's not a great amount but something. **Senator Christmann**: If they were getting $50,000 this time then $150,000 seems like a lot to me. **Tammy R. Dolan**: The appropriation for the Soil Conservation committee for 2009-11 was $837,800. **Senator Christmann**: And this time you're only going to give them? **Tammy Dolan**: An increase of $150,000 so the new base budget would be $987,800. This is ongoing funding as I understand this. **Senator O' Connell**: So this is $100,000 over base? **Tammy Dolan**: Yes, $150,000 over their current base budget. **Senator Christmann**: It's not a great deal of money, but you know if there at $837,000 and we gave them $85,000 it would be a 10% increase or slightly more than 10%. **Senator Holmberg**: First of all we found the money within the budget. Keep in mind that these folks who work for Soil Conservation in the various districts are some of the lower paid. These people work hard and there are times of the year where they put in tremendous amount of hours, so I don't think when you spread it out among 53 counties, that it is a lot of money for over a 2 year period. Remember they have their taxing, their mills for soil conservation etc, but in some area that doesn't raise a lot of money. **Chairman Bowman:** When we get done we won't come to any conclusion on that amount. We'll just hold that and when we get through with everything, we'll try to come up with a figure that we can all agree on.

Chairman Bowman: The Dickinson Research Center is short and needs $800,000 because of the oil loss revenue. I know that it wasn't in the governor's budget. I know that we funded it the last two biennium's for their shortfall. That is what they need to operate their station with and is that going to be from the Permanent Oil Trust fund and it had a loss? Does anyone have a problem? Consensus was yes. **Senator Christmann**: I am still not charged up about this, but I guess I can accept it, but I just don't and I can just see it next time. We're going to be in here and well the oil wells producing less and we've give them more and I just hope we can find some way of clarifying this. The oil money ought to come to the state since we're funding the difference anyway and we fund the whole thing rather than this trying to guess what it is going to produce. **Senator Bowman**: I am sure they would be happy to fund it all with general fund

money and then use that oil money for whatever they wanted to use it for. **Chairman Holmberg**: The oil well is on their land. The mineral rights' on their land is where it's coming from and it augments. When you look at these budgets, each one of the research centers has income that they are expected to generate and some of them sell feed or cattle, some sell sheep, whatever, and they have the Dickinson Research Center has relied on that money from the oil well to pay their operating costs and as that drops, they aren't selling enough seed, it is a diminishing resource. **Chairman Bowman**: Senator Christmann brings up a good point. Every year we go through this same thing at every biennium and there should be some kind of a formula worked out to where it's a part of the budgeting process when oil revenues continue to go down and it's a need for their baseline budget. It should just be automatically be in the budget so that we don't have to talk about this every two years. **Senator Holmberg:** Tammy, it wasn't in the budget, did they not anticipate this at the research center and make that be known or is this something that just came up after we got to town? **Chairman Bowman**: No. **Tammy Dolan**: It is a known issue that has been addressed through the legislative process the last few biennium's. It was not brought as part of their budget request. The budget request came from the SBARE priority list and this was not an item on that list. So it wasn't something that we addressed in the governor's budget. **Senator Holmberg:** So the governors' budget in your estimation does it fully fund the operations of the research center or did you have to under the income line item x dollars coming from the oil well that are going to materialize? **Tammy Dolan**: The Governor's budget as it turns out was counting on this revenue, the mineral oil revenue. **Senator Holmberg**: And it's not going to materialize? It's not materializing to the standpoint that you thought it would. **Tammy Dolan**: That had been anticipated in their budget request. **Senator Christmann**: When did we decide that they we going to be $800,000 short? I mean at $100+ a barrel maybe they're going to have money now. **Chairman Bowman:** Did you get a copy of the printout on oil revenues there? I think it was $900 and some thousand in 2005, and it's down to $100 thousand something now and that's the $800,000 barrier. Whether it's exactly that or not I don't think any of us can know because it fluctuates in price but production in that particular field is going down and it's been going down the same as the college. It's been going down for quite a few years now. We've seen a decrease continuously and it's been unitized the way I understand it whether they are going to re-unitize it I don't know. I've never heard anything about it, but if they re-unitize it, it will gradually go down and it might pump so many barrels a day for the next 30 years, but it is not going to be any great amount of oil. So what do you want to do Senator Christmann on that particular item? **Senator Christmann**: I would be fine with it. **Chairman Bowman**: Another item you receive an awful lot of emails on and that's grapes. I've pretty much got grape out on this one. **Senator O' Connell**: Did you get any? **Senator Holmberg**: Were they processed? **Chairman Bowman:** The question was how many samples have I tried? We started funding this the last biennium for research. It is a new industry in North Dakota, and they are trying to get a variety of grapes that can hopefully be profitable to them just like any other commodity that we have. It takes research to enhance the industry and increase the value of what they have. I am not sure what the match was the last time could you tell us what it was? 4:1. **Tammy Dolan**: It was a 4:1 match and it was $62,500. **Chairman Bowman**: I would think that if we're going to fund this that we would require the match and we want the language to make sure that the money goes for research. That would be my suggestion if you want to do it? If you don't want to do it, I could live with it either way. **Senator O'Connell**: I think we give them at least another chance to figure out somehow. Personally I feel better if they would have to come up and have a check off fee. **Chairman Bowman:** If memory serves me correct, I believe it take 4 years before a grape tree produces grapes. Is that pretty close? If that's the case and they started this 2 years

ago, it's going to take about 2 more years of research. **Senator Christmann**, What is your feeling on this? **Senator Christmann**: Did Tammy say that last time we did $62,500 for them? Well a couple of thoughts. First of all I am inclined to want to help them, but I don't know that various new agriculture entities that might come up, where do we draw the line? If they send up enough emails we'll give them money? I think back over the years before everybody had a computer. We would be funding research for emus, lamas. There has been a lot of new things that have come up and where do we draw the line on which ones we just fund. On the other hand it is a neat new thing. I am not really sure what we should do? Is this money designated for NDSU to do the research or is just giving them money to hire their own researcher? **Chairman Bowman**: I think we can put in this particular language anything we want. **Senator Christmann**: What was their request though? **Chairman Bowman:** The request all I've got is a grant to Grape Growers Association for $250,000. But if you want that to go to research and they have to have a match, like we required before, and make sure that it goes for research and they do it at NDSU that is exactly where the money should go then. **Senator O'Connell**: If I remember right the discussion was they had a heck of a time meeting the match with just the $62,000 so we probably should have to have some language whatever isn't used turned back or whatever. **Senator Holmberg**: I know we do have to move on these bills within the next couple of days, we should probably come to as best we can as a consensus and then finish it up in the conference committee because we need to have the language here if we want to go forward with it. **Senator Christmann**: How about we do $125,000 and have it caused to go to conference committee? **Chairman Bowman**: Do you agree with that? **Senator O'Connell**: Okay I'll go along with that as long as we know it's going to conference committee. **Senator Christmann**: I think it is a hobby I don't know if anybody has any money to match that. I don't know enough about the industry to know whether there is anything with which they can match. **Chuck Flemming**: They got $30,000 from us through the Special Crop Grant which is a federal grant, and I am not going to guarantee that there are going to get that again, but that gave them the biggest chunk of the money. We made the match 2 years ago. **Senator Holmberg**: And that was to the Grape Growers Association or NDSU? **Chuck Flemming**: You need to get Ms. Peterson down here to discuss that issue. She spent many hours dealing with the language you folks put in last time and the consternation she had. **Tammy R. Dolan**: Yes there were many hours spent on trying to figure this out. I believe the federal grant would've gone to the Grape and Wine Program committee which is where the appropriation went too last time. It was a new committee that was set up, so it wasn't directly to the Grape Growers it was to the Grape and Wine Program committee which is not a state agency it was just a new committee that was set up. They were able to get their entire match; just recently using some of it was through the federal grant that the agriculture department has. **Chuck Flemming**: Our money did go to the association with the clear understanding that it had to move over through that committee. **Chairman Bowman**: My feelings' is we're going to try and produce grapes in North Dakota, they ought to do their research in North Dakota because the weather conditions would be extremely different, I would think. I think if they're going to make it competitive they got be hardy in the winter. What amendment would you like to get drafted on that $120,000 and the match? The money stays in North Dakota for research? **Senator O' Connell**: The research can be done at Dakota College at Bottineau. **Senator Christmann**: If we don't address it the money will be in the NDSU's research center budget right sitting there for them to do what they want with grape growing research and I would think they would have to negotiate it out, the wine and grape growers will have to then come to NDSU and ask for the money and some consensus how to do it. If $125,000 isn't enough then those guys know they need to increase $ 50,000 to get it off the ground. But I hope that Mr. Flemming will go to them

and this had better come to SBARE next time and not be flooding us, but go through the process if they want to be an agricultural entity they should act like the other agricultural entities. **Chairman Bowman**: I haven't heard a figure, are you sticking with the $120,000 plus the match? **Senator Christmann**: I am not sure what match you are talking about? **Chairman Bowman**: Would you explain the match that they were required of two years ago? **Tammy R. Dolan**: This current biennium they received $250,000 only to the extent they could get a match of 4:1, so they had to raise $62,500 in order to spend the entire $250,000. **Senator Christmann**: They had to raise $62,500? **Tammy Dolan**: They had to raise $62,500 in order to spend the $250,000 that they got from the state. **Senator Christmann**: Last time we gave them $187,500. **Tammy Dolan**: Last time you gave them $250,000 from the general fund plus they had to raise $62,500. **Senator Christmann**: Okay, I didn't understand, when I said $125,000 I was thinking we were talking about what we had given them $62,500 and that is what they asked. **Tammy Dolan**: You gave them $250,000 this current biennium. **Senator O' Connell**: Do you still want to stick with the $125,000? **Senator Christmann**: Well they should've made some progress with that $300,000. Let's put that in there and we'll give them a little more time. **Chairman Bowman**: $200,000 plus? **Senator Christmann**: We've given them some to add to that livestock deal at the end. **Chairman Bowman**: We cut back at $50,000 out of that at $200,000 plus they have to match like they did before that wouldn't be too bad. We'll see where we're at when all done with this. **Senator Christmann**: I would put it in at $200,000 then. **Senator O'Connell**: I am good with $200,000.

Chairman Bowman: The Department of Agriculture molasses testing initiative came down from the trip they took over to Denmark. They found out there is a product that they could use, and I suppose its feed palatability that molasses is kind of a sweetener. They used to put molasses in a long time ago. That is something that they should work in with the research that they are doing now at the new research facility because it might be rations that they are going to want to try and see if there is any difference in if it's for palatability or whatever to get them to eat the feed; and then to see if there is any benefit by that and if there is an economic benefit, then you would want to pursue it further. But, I am open for suggestions on that. **Senator O'Connell**: I was under the impression listening to the news release there were different products used to make molasses. **Senator Christmann**: I think those guys at Dickinson are pretty good. All of our livestock research people do pretty good work and if they want at Carrington that feed lot and want to toy with this and think its worthy to do some experimentation on it. I think they will, I just don't think we need to add this on. **Chairman Bowman**: I also understand, I think there is $20,000 of that $60,000 that they have to use to apply for something through the government before they can even do this is that true? Would you like to address that? **Chuck Flemming**: One of the problems that is things have changed in a long time. This is a brand new type of feed. The little bit they've done in Denmark and the little bit that the Poets are doing with corn cobs cellulosic research. They are so interested in the ethanol plants in getting the ethanol out they don't worry about the byproducts. So they've been using it primarily for fuel to fuel the plants so you get done with this cellulosic you get lignin then you get this molasses. It's not like the old days, you just can't go and get some of this stuff and start saying you're going to do it on feed trials, so the request was for $20,000 to actually go through the process of FDA to get the approval before you do it, and then $40,000 for the actual trial to see how it works. These plants over the past look at their primary product and they don't look at their secondary product. That is pretty critical when times are tough. When times are good the primary product is great. **Chairman Bowman:** Should we let SBARE talk this over for next biennium and if someone else is doing the trials we'll have the results to

find out if it is worth doing? **Ron Howe**: Here and now, the ethanol plants are doing a wonderful job. If we take some of this money into their own long term 2 years and I think they are using their by product. **Chairman Bowman**: Maybe they could get a grant through one of the better ones. Okay we'll just leave that off the table.

Chairman Bowman: The next one is the Gearing up for Kindergarten program. We also know that we have another bill that is from the Department of Human Services for Head Start program. Head Start deals with the poverty kids below a certain level of poverty; and Gearing up for Kindergarten can be for parents to prepare their kids for kindergarten. I haven't quite in my head figured out why you have to prepare your kids for kindergarten. When kindergarten was sold to us, how important it was to prepare the kids for school. So now we're preparing them for kindergarten and what I look at more than anything with a program like this, we're starting out with a $830,000 appropriation, we're short a lot of money to do some of the things that would really be nice to do for the research. The research is where we increased the production and the productivity of agriculture and from that we generate the profit that goes into these kinds of things. We've got $8,400,000 for seed conditioning plants requested. We've got a learning center for $2,500,000 for kids and there is a whole list of other ones if you read through the book of SBARE priorities. If you take those dollars and put it in here and in the next biennium those dollars get increased that is less dollars that we have available to do the traditional research that we need so badly. That is where I have this problem. I understand education, and what it's like today with difference of raising families compared to years ago. If you have parents who insist that you actually read your lessons you might make it. I know it's going to be an issue that we'll have to decide and we're not going to do it today. **Senator O'Connell**: I guess I need a little more information on that because in the governor's commission on education, but basically if I remember right, that was basically after school hours and it was more for parents than it was for kids. That was a pilot project. I don't know if this is a pilot project or not. If it's a pilot project I am all for it, but if it's for everybody then it's a different deal. **Tammy R. Dolan:** This is the item that came from the Governor's Commission on Education. They had a federal grant this last biennium that started this on a pilot basis and this would expand it statewide. It is exactly as you described it; it is after hours working with the parents bringing in the kids. **Senator Christmann**: How long would it take the extension people to gear up to do this? I don't suppose just by throwing out $830,000 what does that get? Does that get us some employees to do it or some materials to hand out to the parents or will they be up and going and preparing kids for kindergarten this fall? **Rod Howe,** Chairman of SBARE: My understanding is $500,000 of the $835,000 is a path through to the school. The other $300,000 is for extension to administer and coordinate it through the parenting centers. **Chairman Bowman**: This is in coordination with the parenting that came in 4 years ago and there was 3 or 4 locations that started this parenting and then they expanded that two years ago. Now all of a sudden they become the group that is going to do this particular program, is that right? **Rod Howe**: That is correct. They were additionally looking for in the next priority for some additional funding for the parenting centers. They had a bare minimum and that additional funding has not been addressed or recommended yet. But in talking to the extension Director Haulk, the $300,000 they would get as much out to as many people as they could administer that with the $500,000 going to the schools. **Senator O'Connell**: When you say going to the school on census basis or how would that be distributed to the school? **Rod Howe**: I am not sure. **Senator Christmann**: Unless you are really determined to finish this up before noon, I think we should deal with the other and I think this is a good subject to include Senator Holmberg in. Can we put just one part of it off? **Chairman Bowman**: I agree with you.

HB 1373 is a different bill completely but indirectly it has some correlation between what we've just talked about so we'll talk about that later on when we have in the bill. Any other items in the budget you have a heart burn for or a priority for or you think we should eliminate some of the funding? I can look at anything. We're going to have to get some amendments drafted and then decide because we don't have a whole lot of time left. **Senator Christmann**: I am still very determined that if you look at this sheet that has SBARE priorities, in the top section on the research centers, that on #5, where they has originally requested $810,000, that we should be funding at least $240,000 for the livestock stewardship part. **Chairman Bowman**: But that's in a different line item I think. That is down under extension service 2B. **Senator Christmann**: The Extension Service 2B is for extension to get the word out; up on top there that is for the research to do the research. I think we need the research component to create the information that extension will get out. **Senator O'Connell**: Are you saying $250,000 instead of the $810,000 is that what you refer too? **Senator Christmann**: I think even $240,000 would do it. **Chairman Bowman**: $240,000 and with the notation there that is to go for the research? And after the research in two years they will be coming in for the money to get the message out. Is that how that works? **Senator Christmann**: We've got the money for the message down in extension, the full deal. **Senator O'Connell**: I am looking for the seed cleaning and what not in here? **Chairman Bowman**: I have a list of all of them. **Senator Christmann**: Are we okay on the $240,000? **Chairman Bowman**: That's fine with me. **Sara Chamberlin**: If I could clarify on the $240,000 for the SBARE priority. It does look like there is a FTE associated with it, or are we adding an FTE as well? **Chairman Bowman**: Isn't there one FTE with that? There is one FTE at the main station. **Rod Howe**: A researcher and a technician. **Chairman Bowman**: The book they gave us earlier, the livestock stewardship was $250,000 and on FTE at the main station. **Tammy R. Dolan**: On the research, you're talking about the extension piece which the piece that Senator Christmann talking about will compliment that. The requested item that Senator Christmann is talking about which is #5 on the research side is actually the original one of $810,000 had 5 FTE's associated with it, however, that wasn't included in the Governor's budget. I am not sure how the break down is to get to the $240,000. **Senator Christmann**: If we can generally count that in and I'll get more detailed information. I was told that was about what was really essential and find out about the FTE's. **Chairman Bowman**: And I am in favor of that too as long as we get it in the right spot and the right amount because it's going to compliment what we're doing right now with the livestock industry. We will talk to Senator Holmberg about this kindergarten stuff, our pre-kindergarten parenting and get his take on that and then we'll get together as quick as we can get the amendments drafted that we've requested. I would also like to request to see where we are at with the general fund dollars compared to the Governor's budget too. Could that be done? Any other issues we need to discuss? **Senator O'Connell**: Where are we at on the seed cleaners? There was talk about portable cleaners and the three conditioning plants and their $8.4 where are we going to be at on that? **Chairman Bowman**: I know where I was at when I mentioned the portable cleaners as I was left in left field by some person standing right behind me at the original hearing. I didn't say we were going to do it, I just brought it up as a something to look at because you're talking about $8 million dollar investment between 4 units and if you spend $1 Million dollars on the best portable cleaner would that take us for two, three or four biennium's until we can find the $8 million dollars. I don't know. I've been to the one up in Minot and I know it's terrible. We have to decide how to address that. Do you have any suggestions?

Senator Christmann: All this stuff would be nice to do. It seems to me when it comes to the crops around the state, we made a decision a few years ago that the priority thing was that

greenhouse at NDSU. It is always nice to be buying something new but when we jumped in to something that big, it requires a couple of sessions of paying for it until we can start doing new stuff. What we're going to spend just finishing Phase 3, would buy all these seed cleaning things in a biennium too. So I think they are going to have to deal with what they've got for a couple of more years until we get that paid for, having that greenhouse paid for. It not only will do a lot for agriculture in North Dakota, but it is going to free up a lot of money out of this budget for some other new things. I am comfortable with our investment where it is at and waiting on those seed cleaners.

Chairman Bowman: I understand the importance of it and evidently there is a little difference in when they were built. A couple of them we're built 10-12 earlier than the other ones. And so that is something that if there is some kind of a study with agriculture they could include that in the study. I made that point a long time ago, that the money that we invest in the infrastructure needs of all these different research centers is so vitally important because if we don't keep up what we've invested in, the cost becomes a new unit. We'll discuss that later. **Senator O'Connell**: Just like education. **Senator Christmann**: This is to butter up to the SBARE president. Having served on that committee for years there is a lot of extensive in depth discussion with the various agricultural entities over a long period of time far deeper than what we can do here a short time with all the other bills we're working on. I am pretty confident that the seed cleaning facilities are going to be something that is piled on their plate of things to look at during the next two years. They will come back probably with a good prioritization again for us as to what our best investments and research are, so I think we wait and let them have a look at it first.

Chairman Bowman: I also forgot about IVAN and from what I've heard just from our discussions that technology that might replace IVAN is probably going to be better than what we have. The reason I brought that up was because if you can have meetings in one community and not have to take people 300 miles just the savings alone today in gasoline is going to be huge for 2 years. You can think about that if you decide you don't want to talk about that fine, but I think I needed to bring to your attention because I know it was brought up when we had the hearing and if its outdated and I don't know if its serviceable or not. It is something that has a lot of merit when you're discussing from one research facility to another, the information that you get through the camera by talking directly with the people and they can tell you exactly what they've found and you can have a room full of agricultural people in there and learn as much by that and not have to move them from one research facility to the other to get that information. So there is merit behind it, but whether we want to spend $250,000 on that or not, I don't know.

Senator Christmann: I think the technology by just doing things through PC's and I've never used this 'go to meeting.com' but I've heard of some business entities doing it and cutting back on their travel expense because they do their meetings with that. Skype that individuals use and talk to each other and videos on the phone, it's not perfect yet but that technology and various things you do through your personal computer is evolving so quickly that I am not sure that this is a good investment for us at this time.

Chairman Bowman: Draft the amendments that we discussed and we're going for sure. Then draft the other amendments on the parenting. **Senator O'Connell**: It was from $250,000 to $200,000 for the grapes. You've got that amendment for $200,000. **Sara Chamberlin**: On the

Grape Growers grant we're going to require a match, a 4:1 similar match **Chairman Bowman**: Yes, I would require the match like we had before. **Senator O'Connell**: A 5:1 match this time. **Chairman Bowman**: The same match that they had before. **Senator O'Connell**: They had 4:1 last time; do we go to 5:1 this time being they had trouble last time? I am just throwing that out to you.

Chairman Bowman: Yes, but you're supposed to learn from all this research. It was a good suggestion. We'll close the hearing on HB 1020.

2011 SENATE STANDING COMMITTEE MINUTES

Senate Appropriations Committee
Harvest Room, State Capitol

1020
04-06-2011
Job # 16387

☐ Conference Committee

Committee Clerk Signature Alice Delzer

Explanation or reason for introduction of bill/resolution:

A ROLL CALL VOTE FOR A DO PASS AS AMENDED ON THE EXTENSION SERVICE, NCI, UGPTI, BRANCH RESEARCH CENTERS

Minutes: You may make reference to "attached testimony."

Chairman Holmberg called the committee to order in reference to HB 1020. Sara Chamberlin, Legislative Council and Tammy R. Dolan, OMB were also present.

V. Chair Bowman asked Sara to explain the amendment #.02002.

Sara Chamberlin: House Bill 1020 includes the budget bills for the Upper Great Plains Transportation Institute, the Branch research Centers, The Extension Service, Northern Crops Institute, the Main Research Center and the Agronomy Seed Farm. In regards to the upper Great Plains Transportation Institute, there were no changes made. If you look at page 3 for the Branch Research Centers, the House had added $2.25M for an agronomy laboratory capital project at the Carrington Research Center, this amendments removes that funding. For the Extension Service on page 3, funding is restored for the SBARE initiative relating to livestock stewardship which was removed by the House; funding is added for the soil conservation committee to increase the total funding provided from $887,800 to $987,800. For the Main Research Center, funding and 1 FTE position added by the House for the SBARE initiative relating to the State Data Center is removed. Funding is added for a grant to conduct research relating to grape growing in the state to be administered by the Main Research Center in consultation with the Grape Growers Association. A section is added in the bill requiring a match of $1 for each $4 provided by the state prior to use of funding. And if you look at page 2 you can see the language for this section, adding Section 8. The next item that was added to the Main Research Center is funding is provided for an SBARE initiative to improve animal productivity and livestock stewardship for increased profitability in the North Dakota livestock industry. This initiative includes 2 FTE technicians at the Main Research Center. That was the summary of the changes in the amendments.

V. Chair Bowman asked if we should approve these and then go on to the next ones.

Chairman Holmberg: Yes, we want to keep them separate because the record has to be clear where we are at.

V. Chair Bowman moved amendment #.02002. Seconded by Senator O'Connell.

Senator Wanzek: I am wondering if we can divide the amendment and vote separately on the Research Center in Carrington?

Chairman Holmberg: We could do that. That would be Footnote #1. It is the Agronomy lab project at the Carrington station that was added by the House. What we have then, the motion that we will vote on first is **Everything else in this amendment except Footnote 1 on page 3 and we will vote on that separately. Would you call the roll on all of the amendment except Footnote #1.**

A roll call vote was taken on amendment # .02002. Yea: 13. Motion carried.

Chairman Holmberg: that motion carried and now we have before us Footnote # 1, which is $2.225M.

Senator Wanzek: I apologize, I didn't have time for further research and follow-up with the calls and emails I got. I know that the expression I have heard from folks in Carrington and others who supported it is that this ranked high in as far as the capital projects, and I just appreciate the opportunity to have a separate vote on it. I am sure once it gets back to the House there will be some Representatives there that will have something to say but I appreciate the opportunity to have a separate vote.

Senator Robinson: The rationale to remove it was largely the cost, is that right?

V. Chair Bowman: No, it wasn't necessarily the cost. It was the fact there were two other ones under the same request, One's at Langdon and ones at Hettinger. Now we are starting to pick and choose. My goal, if we get this budget passed the way it is, is in the next biennium we can do all three of them, because that would be offset by the investment we made in Fargo finishing up the green house. That was $8.M so I was hoping that could happen if we didn't do this. Other items that we have to look at is capital projects, and that is we also have a request for grain cleaning at 4 different stations, North central, Carrington, Williston and Langdon. And so in the next two biennium if we are careful how we structure this we can possibly do all of those projects in the next two biennium, that was the reasoning behind taking that out. It isn't because we are opposed to it. It's because there are two other research centers that would like exactly the same thing. I hope we reject this.

Senator Wanzek: A question of Senator Bowman and what was said to me and maybe provide me the information but SBARE had ranked this higher than the others.

V. Chair Bowman: if you talk to someone in Hettinger, you talk to someone in the other facility I think you will find that their's is just as important as ...and that is what we run into. I've been doing this for many years and I can tell you that I could get as many emails as I wanted to to support which ever these 3. All you need to do is call them up and tell them to email us and they will and then you start to think, why is that one so much more important? They are all important. Our future in agriculture hinges on our ability to have nice research facilities so that we can get the best to do the research but we need to be careful on the total dollars we

put on these, so we can continue to improve the facilities and treat all of them kind of the same way. I don't like to pick and chose over one or the other. I can understand the point if it's in your district and you need that, that's very understandable to me, but Hettinger is in my district, and that's out. I didn't pick and that's hard for me to do but when you look at the whole picture and you want to try to get this all done you need to be kind of careful how you do it. I wasn't picking on them because I dislike them, all I was just trying to free up money for these other things so that in the next biennium we can do all three of those projects and feel real good about it. And then we've got that done for hopefully another 20 years or so and then we can get on to the seed cleaning plants, if that's going to be a major issue, and that's $8.4M. You want to remember the important part of this is to be able to hire the research people. You can have all the buildings in the world but if you don't have anyone to do the research what good are the buildings. And we've spent a lot of money on buildings, and not as much as I've always thought on research. We spend a lot of money on buildings, I hope you resist this and I hope in two years we can build all three of them. Meter 12.23)

Senator Christmann: None of these are in my district, so I'll just point that out, but SBARE used to be in my portfolio, I think highly of their work. Look on page 112 in the Research and Extension areas in the NDSU Book (which was distributed during the Appropriation hearings before the whole committee) in one area they went all the way to their 10th ranking and they are pretty detailed on this, when you get into the capital projects they had all of the agronomy labs in one for $5.275M so if they did evaluate one higher than the other it's not indicated on here. But the House did pick this one. The point I want to make is this: Why I never finance a car, or anything. I can see where the payment would be easy to take it home and have the fresh brand new car but by the 36th, or 48th or 60th month, they get kind of hard to make. We knew this was going to happen, and for years and years SBARE's #1 priority has been that greenhouse. We knew this would be tough by the time we got to the end of it when we divided it up over 3 biennium and here we are, almost $9 ½ M that we are putting into finishing that. It seems like old news now, the greenhouse, but the fact is that's what we wanted for year after year, and even to this day SBARE ranked that their number 1 priority and when this is done, and this is the last biennium for funding, that will be freed up and we can move on to some of these other capital projects.

Chairman Holmberg: Would you call the roll on Footnote 1. If you vote yes, you vote against the greenhouse project in Carrington. If you vote no, you are voting for that building project. The motion is to remove, so if you vote yes, you are removing the project from what the House did. So what you have in the plain English, Senator Bowman is urging you to vote yes; Senator Wanzek is urging you to vote no. Call the roll.

Senator Wanzek: Not many times my agriculture buddy and I are on opposite sides.

A roll call vote was taken on the Footnote against greenhouse in Carrington: Yea: 12; Nay: 1; Absent: 0.

V. Chair Bowman: Did that pass or fail?

Chairman Holmberg: It's part of the amendment. Nothing was changed from what you had in it.

V. Chair Bowman: Next amendment is # .02003. By the way the $800,000 for that shortage of oil revenue for Dickinson is in the bill so there's not an amendment. It was in the House version. This amendment that you received only does one thing. It takes out the part of the budget for gearing up for kindergarten, that was $830,000. I think after you've just heard the need for capital projects and you understand this budget the thinner the amount of money that you have in that budget to do capital projects, the tougher it is to get them funded and as you add more programs to this budget, it makes it harder for us to update and modernize our research facilities and I just prioritized that part a little higher than this part. There is going to be another bill that we're going to deal with that has some similar characteristics and Head Start is in a separate bill but right now we voted to take that out.

V. Chair Bowman moved amendment # .02003. Seconded by Senator Erbele

Chairman Holmberg: Keep in mind right after we do this budget we're going to do 1373, which is the Head Start issue and I think you will find that the subcommittee liked that bill and we were kind of doing this Sophie's choice and decided that the Head Start would reach needy children whereas this program was for everyone, so that's why that recommendation is going to come. You'll get an opportunity in just a few minutes to vote on that other issue.

A roll call vote was taken on amendment #.02003. Yea: 9; Nay: 4; Absent: 0. The motion carried.

V. Chair Bowman: The last amendment is the Northern Crop Improvement asked if we could consider this amendment and what it does it staggers the board members so they don't lose so many at once. # 11.8161.02001. He asked Sara to explain the amendment.

Sara Chamberlin: There was a request by the Northern Crop's Council for the legislature to consider a one time exemption from NDCC to adjust the term length on some of the council members. Currently, looks like 8 of the 17 seats are scheduled to be vacated due to term limitations in June of 2013. So this amendment was drafted by our legal staff. The new language would provide that not more than 1 producer and not more than 1 industry representatives term expires in June of 2013 and this was suggested to alleviate the problem of having so many vacancies on the board at one time.

V. Chair Bowman moved amendment # 02001. Seconded by Senator O'Connell.

Senator Warner: Who makes the decision which ones stay and which ones go.

Chairman Holmberg: I don't know.

A roll call vote was taken on amendment # .02001 on HB 1020. Yea: 13. Motion carried.

V. Chair Bowman moved a Do Pass as Amended on 1020. Seconded by Senator Erbele.

Senator Robinson: 1 question for Senator Bowman. I agree we need quality scientists and technicians, and yet when we have those people in place if we don't have the lab space for the folks to work. What in this budget impacts their lab space? Is there anything at all? I know some folks that were on the, I have a friend in our community who's on the Carrington

Research Advisory Board and that was a concern there that they have outstanding scientists but they didn't have a place for them to work.

V. Chair Bowman: That wasn't discussed. But a lot of the need is in the green house area, because part of that lab was going to be an extension of a new greenhouse up there also. We haven't filled unit 2 of the greenhouse in Fargo. We're just finishing that. I am not sure if they can work that out between Carrington and Fargo. Phase 1 at the greenhouse at Fargo is in full capacity. Now we will build the 3rd phase and they are just finishing up the second phase. Hopefully they can coordinate that between the two facilities until next year, hopefully we can build all three of them.

Chairman Holmberg: Would you call the roll then on a DO PASS AS AMENDED ON HB 1020?

A ROLL CALL VOTE WAS TAKEN ON A DO PASS AS AMENDENDED ON HB 1020. YEA: 13; NAY: 0; ABSENT: 0. MOTION CARRIED. V. Chair Bowman will carry the bill.

The hearing was closed on HB 1020.

Prepared by the Legislative Council staff for
Senator Bowman
April 4, 2011

PROPOSED AMENDMENTS TO ENGROSSED HOUSE BILL NO. 1020

Page 1, replace lines 20 through 22 with:

"Extension service	$47,091,489	$765,165	$47,856,654
Soil conservation committee	837,800	150,000	987,800
Total all funds	$47,929,289	$915,165	$48,844,454"

Page 1, remove line 24

Page 2, replace line 1 with:

"Total general fund	$22,000,412	$3,715,232	$25,715,644
Full-time equivalent positions	255.75	1.00	256.75"

Page 2, replace line 22 with:

"Main research center	$87,530,418	$11,177,153	$98,707,571"

Page 2, replace line 26 with:

"Total all funds	$87,530,418	$11,177,153	$98,707,571"

Page 2, replace lines 28 and 29 with:

"Total general fund	$42,517,151	$12,056,845	$54,573,996
Full-time equivalent positions	329.26	4.00	333.26"

Page 3, replace lines 9 and 10 with:

"Carrington research center	6,727,962	398,526	7,126,488
Total all funds	$26,284,006	$3,448,783	$29,732,789"

Page 3, replace line 12 with:

"Total general fund	$12,367,190	$1,568,018	$13,935,208"

Page 3, replace line 25 with:

"Grand total general fund	$79,913,767	$17,923,291	$97,837,058"

Page 3, replace line 27 with:

"Grand total all funds	$189,383,429	$16,753,821	$206,137,250"

Page 4, remove lines 3 and 4

Page 4, replace line 11 with:

"Grape and wine program committee		250,000	200,000"

Page 4, replace line 15 with:

"Total all funds $22,675,000 $9,694,581"

Page 4, replace line 17 with:

"Total general fund $17,700,000 $7,191,650"

Page 5, after line 17, insert:

"**SECTION 8. GRAPE GROWING RESEARCH GRANTS.** The main research center line item in subdivision 4 of section 1 of this Act includes $200,000 from the general fund for the main research center to provide grants, in consultation with the grape growers association, to in-state research organizations to conduct grape growing research in the state, for the biennium beginning July 1, 2011, and ending June 30, 2013. The main research center shall require one dollar of matching funds for each four dollars of state funds provided on any grant award."

Renumber accordingly

STATEMENT OF PURPOSE OF AMENDMENT:

House Bill No. 1020 - Summary of Senate Action

	Executive Budget	House Version	Senate Changes	Senate Version
Transportation Institute				
Total all funds	$24,069,961	$24,069,961	$0	$24,069,961
Less estimated income	22,150,333	22,150,333	0	22,150,333
General fund	$1,919,628	$1,919,628	$0	$1,919,628
Branch Research Centers				
Total all funds	$28,812,789	$31,957,789	($2,225,000)	$29,732,789
Less estimated income	14,877,581	15,797,581	0	15,797,581
General fund	$13,935,208	$16,160,208	($2,225,000)	$13,935,208
NDSU Extension Service				
Total all funds	$48,744,454	$48,494,454	$350,000	$48,844,454
Less estimated income	23,128,810	23,128,810	0	23,128,810
General fund	$25,615,644	$25,365,644	$350,000	$25,715,644
Northern Crops Institute				
Total all funds	$3,347,307	$3,347,307	$0	$3,347,307
Less estimated income	1,654,725	1,654,725	0	1,654,725
General fund	$1,692,582	$1,692,582	$0	$1,692,582
Main Research Center				
Total all funds	$97,897,571	$98,392,571	$315,000	$98,707,571
Less estimated income	43,973,575	44,133,575	0	44,133,575
General fund	$53,923,996	$54,258,996	$315,000	$54,573,996
Agronomy Seed Farm				
Total all funds	$1,435,168	$1,435,168	$0	$1,435,168
Less estimated income	1,435,168	1,435,168	0	1,435,168
General fund	$0	$0	$0	$0
Bill total				
Total all funds	$204,307,250	$207,697,250	($1,560,000)	$206,137,250
Less estimated income	107,220,192	108,300,192	0	108,300,192
General fund	$97,087,058	$99,397,058	($1,560,000)	$97,837,058

House Bill No. 1020 - Branch Research Centers - Senate Action

	Executive Budget	House Version	Senate Changes	Senate Version
Dickinson Research Center	$5,588,562	$6,388,562		$6,388,562
Central Grasslands Research Center	2,865,847	2,865,847		2,865,847
Hettinger Research Center	3,373,175	3,373,175		3,373,175
Langdon Research Center	2,378,807	2,378,807		2,378,807
North Central Research Center	4,279,821	4,399,821		4,399,821
Williston Research Center	3,200,089	3,200,089		3,200,089
Carrington Research Center	7,126,488	9,351,488	(2,225,000)	7,126,488
Total all funds	$28,812,789	$31,957,789	($2,225,000)	$29,732,789
Less estimated income	14,877,581	15,797,581	0	15,797,581
General fund	$13,935,208	$16,160,208	($2,225,000)	$13,935,208
FTE	95.49	96.49	0.00	96.49

Department No. 628 - Branch Research Centers - Detail of Senate Changes

	Removes Funding for Capital Project[1]	Total Senate Changes
Dickinson Research Center		
Central Grasslands Research Center		
Hettinger Research Center		
Langdon Research Center		
North Central Research Center		
Williston Research Center		
Carrington Research Center	(2,225,000)	(2,225,000)
Total all funds	($2,225,000)	($2,225,000)
Less estimated income	0	0
General fund	($2,225,000)	($2,225,000)
FTE	0.00	0.00

[1] Funding added by the House for the agronomy laboratory capital project at the Carrington Research Center is removed.

House Bill No. 1020 - NDSU Extension Service - Senate Action

	Executive Budget	House Version	Senate Changes	Senate Version
Extension Service	$47,856,654	$47,606,654	$250,000	$47,856,654
Soil Conservation Committee	887,800	887,800	100,000	987,800
Total all funds	$48,744,454	$48,494,454	$350,000	$48,844,454
Less estimated income	23,128,810	23,128,810	0	23,128,810
General fund	$25,615,644	$25,365,644	$350,000	$25,715,644
FTE	255.75	255.75	1.00	256.75

Department No. 630 - NDSU Extension Service - Detail of Senate Changes

	Restores Funding for SBARE Livestock	Adds Funding for Soil Conservation Committee[2]	Total Senate Changes

	Stewardship Initiative[1]		
Extension Service	$250,000		$250,000
Soil Conservation Committee		100,000	100,000
Total all funds	$250,000	$100,000	$350,000
Less estimated income	0	0	0
General fund	$250,000	$100,000	$350,000
FTE	1.00	0.00	1.00

[1] Funding is restored for the State Board of Agricultural Research and Education (SBARE) initiative relating to livestock stewardship that was removed by the House.

[2] Funding is added for the soil conservation committee to increase the total funding provided from $887,800 to $987,800.

House Bill No. 1020 - Main Research Center - Senate Action

	Executive Budget	House Version	Senate Changes	Senate Version
Main Research Center	$97,897,571	$98,392,571	$315,000	$98,707,571
Total all funds	$97,897,571	$98,392,571	$315,000	$98,707,571
Less estimated income	43,973,575	44,133,575	0	44,133,575
General fund	$53,923,996	$54,258,996	$315,000	$54,573,996
FTE	329.26	332.26	1.00	333.26

Department No. 640 - Main Research Center - Detail of Senate Changes

	Removes Funding for the State Data Center[1]	Adds Funding for Grape Grower Research[2]	Adds Funding for Livestock Stewardship SBARE Initiative[3]	Total Senate Changes
Main Research Center	($125,000)	$200,000	$240,000	$315,000
Total all funds	($125,000)	$200,000	$240,000	$315,000
Less estimated income	0	0	0	0
General fund	($125,000)	$200,000	$240,000	$315,000
FTE	(1.00)	0.00	2.00	1.00

[1] Funding and 1 FTE position added by the House for the SBARE initiative relating to the State Data Center is removed.

[2] Funding is added for a grant to conduct research relating to grape growing in the state to be administered by the Main Research Center in consultation with the Grape Growers Association. A section is added requiring a match of $1 for each $4 provided by the state prior to use of funding.

[3] Funding is provided for an SBARE initiative to improve animal productivity and livestock stewardship for increased profitability in the North Dakota livestock industry. This initiative includes 2 FTE technicians at the Main Research Center.

Date: 4-6-11

Roll Call Vote # 1

2011 SENATE STANDING COMMITTEE ROLL CALL VOTES

BILL/RESOLUTION NO. 1020

Senate APPROPRIATIONS Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number .02002 except footnote #1

Action Taken: ☐ Do Pass ☐ Do Not Pass ☐ Amended ☐ Adopt Amendment

☐ Rerefer to Appropriations ☐ Reconsider

Motion Made By Bowman Seconded By O'Connell

Senators	Yes	No	Senators	Yes	No
Chairman Holmberg	✓		Senator Warner	✓	
Senator Bowman	✓		Senator O'Connell	✓	
Senator Grindberg	✓		Senator Robinson	✓	
Senator Christmann	✓				
Senator Wardner	✓				
Senator Kilzer	✓				
Senator Fischer	✓				
Senator Krebsbach	✓				
Senator Erbele	✓				
Senator Wanzek	✓				

Total (Yes) 13 No 0

Absent 0

Floor Assignment

If the vote is on an amendment, briefly indicate intent:

Date: 4-6-11

Roll Call Vote # 2

2011 SENATE STANDING COMMITTEE ROLL CALL VOTES

BILL/RESOLUTION NO. 1020

Senate APPROPRIATIONS Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number .02002 - Footnote #1

Action Taken: ☐ Do Pass ☐ Do Not Pass ☐ Amended ☐ Adopt Amendment

☐ Rerefer to Appropriations ☐ Reconsider

yes - against greenbacks in Carrington

Motion Made By _____ Seconded By _____

Senators	Yes	No	Senators	Yes	No
Chairman Holmberg	✓		Senator Warner	✓	
Senator Bowman	✓		Senator O'Connell	✓	
Senator Grindberg	✓		Senator Robinson	✓	
Senator Christmann	✓				
Senator Wardner	✓				
Senator Kilzer	✓				
Senator Fischer	✓				
Senator Krebsbach	✓				
Senator Erbele	✓				
Senator Wanzek		✓			

Total (Yes) 12 No 1

Absent 0

Floor Assignment _____

If the vote is on an amendment, briefly indicate intent:

11.8161.02003
Title.
Fiscal No. 2

Prepared by the Legislative Council staff for
Senator Bowman
April 4, 2011

PROPOSED AMENDMENTS TO ENGROSSED HOUSE BILL NO. 1020

Page 1, replace line 20 with:

"Extension service	$47,091,489	($314,835)	$46,776,654"

Page 1, replace line 22 with:

"Total all funds	$47,929,289	($264,835)	$47,664,454"

Page 1, replace line 24 with:

"Total general fund	$22,000,412	$2,535,232	$24,535,644"

Page 3, replace line 25 with:

"Grand total general fund	$79,913,767	$18,653,291	$98,567,058"

Page 3, replace line 27 with:

"Grand total all funds	$189,383,429	$17,483,821	$206,867,250"

Renumber accordingly

STATEMENT OF PURPOSE OF AMENDMENT:

House Bill No. 1020 - Summary of Senate Action

	Executive Budget	House Version	Senate Changes	Senate Version
Transportation Institute				
Total all funds	$24,069,961	$24,069,961	$0	$24,069,961
Less estimated income	22,150,333	22,150,333	0	22,150,333
General fund	$1,919,628	$1,919,628	$0	$1,919,628
Branch Research Centers				
Total all funds	$28,812,789	$31,957,789	$0	$31,957,789
Less estimated income	14,877,581	15,797,581	0	15,797,581
General fund	$13,935,208	$16,160,208	$0	$16,160,208
NDSU Extension Service				
Total all funds	$48,744,454	$48,494,454	($830,000)	$47,664,454
Less estimated income	23,128,810	23,128,810	0	23,128,810
General fund	$25,615,644	$25,365,644	($830,000)	$24,535,644
Northern Crops Institute				
Total all funds	$3,347,307	$3,347,307	$0	$3,347,307
Less estimated income	1,654,725	1,654,725	0	1,654,725
General fund	$1,692,582	$1,692,582	$0	$1,692,582
Main Research Center				
Total all funds	$97,897,571	$98,392,571	$0	$98,392,571
Less estimated income	43,973,575	44,133,575	0	44,133,575
General fund	$53,923,996	$54,258,996	$0	$54,258,996
Agronomy Seed Farm				
Total all funds	$1,435,168	$1,435,168	$0	$1,435,168
Less estimated income	1,435,168	1,435,168	0	1,435,168
General fund	$0	$0	$0	$0
Bill total				
Total all funds	$204,307,250	$207,697,250	($830,000)	$206,867,250

Less estimated income	107,220,192	108,300,192	0	108,300,192
General fund	$97,087,058	$99,397,058	($830,000)	$98,567,058

House Bill No. 1020 - NDSU Extension Service - Senate Action

	Executive Budget	House Version	Senate Changes	Senate Version
Extension Service	$47,856,654	$47,606,654	($830,000)	$46,776,654
Soil Conservation Committee	887,800	887,800		887,800
Total all funds	$48,744,454	$48,494,454	($830,000)	$47,664,454
Less estimated income	23,128,810	23,128,810	0	23,128,810
General fund	$25,615,644	$25,365,644	($830,000)	$24,535,644
FTE	255.75	255.75	0.00	255.75

Department No. 630 - NDSU Extension Service - Detail of Senate Changes

	Removes Funding for Gearing up for Kindergarten[1]	Total Senate Changes
Extension Service	($830,000)	($830,000)
Soil Conservation Committee		
Total all funds	($830,000)	($830,000)
Less estimated income	0	0
General fund	($830,000)	($830,000)
FTE	0.00	0.00

[1] Funding provided in the executive budget to expand the Gearing Up for Kindergarten program to a statewide scope is removed.

Date: 4-6-11

Roll Call Vote # 3

2011 SENATE STANDING COMMITTEE ROLL CALL VOTES

BILL/RESOLUTION NO. 1020

Senate APPROPRIATIONS Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number .02003

Action Taken: ☒ Do Pass ☐ Do Not Pass ☒ Amended ☒ Adopt Amendment

☐ Rerefer to Appropriations ☐ Reconsider

Motion Made By Bowman Seconded By Erbele

Senators	Yes	No	Senators	Yes	No
Chairman Holmberg	✓		Senator Warner		✓
Senator Bowman	✓		Senator O'Connell		✓
Senator Grindberg	✓		Senator Robinson		✓
Senator Christmann		✓			
Senator Wardner	✓				
Senator Kilzer	✓				
Senator Fischer	✓				
Senator Krebsbach	✓				
Senator Erbele	✓				
Senator Wanzek	✓				

Total (Yes) 9 No 4

Absent 0

Floor Assignment

If the vote is on an amendment, briefly indicate intent:

11.8161.02001
Title.

Prepared by the Legislative Council staff for
Senator Bowman
April 4, 2011

PROPOSED AMENDMENTS TO ENGROSSED HOUSE BILL NO. 1020

Page 1, line 3, after the first semicolon insert "to amend and reenact section 4-14.2-02 of the North Dakota Century Code, relating to the northern crops council;"

Page 5, after line 24, insert:

"**SECTION 9. AMENDMENT.** Section 4-14.2-02 of the North Dakota Century Code is amended and reenacted as follows:

4-14.2-02. Northern crops council - Establishment - Chairman - Meetings - Compensation.

1. The northern crops council is established. The council shall establish policies for the operation of the northern crops institute. The council consists of:
   a. The president of North Dakota state university of agriculture and applied science or the president's designee.
   b. A representative selected by the North Dakota wheat commission.
   c. A representative selected by the North Dakota oilseed council.
   d. A representative selected by the North Dakota barley council.
   e. A representative selected by the North Dakota soybean council.
   f. The agriculture commissioner or the commissioner's designee.
   g. Five to seven producers of northern crops selected by the members designated in subdivisions a through f.
   h. Up to four representatives of industries that process northern crops selected by the members designated in subdivisions a through f.
2. a. The term of office for each member of the council, except the president of North Dakota state university of agriculture and applied science and the agriculture commissioner, is three years, and those members are limited to two 3-year terms. Each term of office begins with the first reorganizational meeting after the date of appointment.
   b. Notwithstanding subdivision a, during the 2011-13 biennium, the council shall:
      (1) Stagger by lot the terms of the producers of northern crops so that no more than one of the producers' terms expires in June 2013; and
      (2) Stagger by lot the terms of the representatives of industries that process northern crops so that no more than one of the representatives' terms expires in June 2013.

3. The chairman of the council must be a member of the council elected annually by a majority vote of the council. Provided, the members designated in subdivisions a and f of subsection 1 are not eligible to serve as chairman.

4. The council shall meet at least three times annually at such times and places as must be determined by the council and may meet in special meeting upon such call and notice as may be prescribed by rules adopted by the council. A council member unable to attend a meeting of the council may be represented by a person who has a written proxy from the member."

Renumber accordingly

Date: 4-6-11

Roll Call Vote # 4

2011 SENATE STANDING COMMITTEE ROLL CALL VOTES

BILL/RESOLUTION NO. 1020

Senate APPROPRIATIONS Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number 11.8161.02001

Action Taken: ☐ Do Pass ☐ Do Not Pass ☐ Amended ☒ Adopt Amendment

☐ Rerefer to Appropriations ☐ Reconsider

Motion Made By Bowman Seconded By O'Connell

Senators	Yes	No	Senators	Yes	No
Chairman Holmberg	✓		Senator Warner	✓	
Senator Bowman	✓		Senator O'Connell	✓	
Senator Grindberg	✓		Senator Robinson	✓	
Senator Christmann	✓				
Senator Wardner	✓				
Senator Kilzer	✓				
Senator Fischer	✓				
Senator Krebsbach	✓				
Senator Erbele	✓				
Senator Wanzek	✓				

Total (Yes) 13 No

Absent

Floor Assignment

If the vote is on an amendment, briefly indicate intent:

Date: 4-6-11

Roll Call Vote # 5

2011 SENATE STANDING COMMITTEE ROLL CALL VOTES

BILL/RESOLUTION NO. 1020

Senate APPROPRIATIONS Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken: ☒ Do Pass ☐ Do Not Pass ☒ Amended ☐ Adopt Amendment

☐ Rerefer to Appropriations ☐ Reconsider

Motion Made By Bowman Seconded By Erbele

Senators	Yes	No	Senators	Yes	No
Chairman Holmberg	✓		Senator Warner	✓	
Senator Bowman	✓		Senator O'Connell	✓	
Senator Grindberg	✓		Senator Robinson	✓	
Senator Christmann	✓				
Senator Wardner	✓				
Senator Kilzer	✓				
Senator Fischer	✓				
Senator Krebsbach	✓				
Senator Erbele	✓				
Senator Wanzek	✓				

Total (Yes) 13 No 0

Absent 0

Floor Assignment Bowman

If the vote is on an amendment, briefly indicate intent:

REPORT OF STANDING COMMITTEE

HB 1020, as engrossed: Appropriations Committee (Sen. Holmberg, Chairman) recommends **AMENDMENTS AS FOLLOWS** and when so amended, recommends **DO PASS** (13 YEAS, 0 NAYS, 0 ABSENT AND NOT VOTING). Engrossed HB 1020 was placed on the Sixth order on the calendar.

Page 1, line 3, after the first semicolon insert "to amend and reenact section 4-14.2-02 of the North Dakota Century Code, relating to the northern crops council;"

Page 1, replace lines 20 through 22 with:

"Extension service	$47,091,489	($64,835)	$47,026,654
Soil conservation committee	837,800	150,000	987,800
Total all funds	$47,929,289	$85,165	$48,014,454"

Page 1, remove line 24

Page 2, replace line 1 with:

"Total general fund	$22,000,412	$2,885,232	$24,885,644
Full-time equivalent positions	255.75	1.00	256.75"

Page 2, replace line 22 with:

"Main research center	$87,530,418	$11,177,153	$98,707,571"

Page 2, replace line 26 with:

"Total all funds	$87,530,418	$11,177,153	$98,707,571"

Page 2, replace lines 28 and 29 with:

"Total general fund	$42,517,151	$12,056,845	$54,573,996
Full-time equivalent positions	329.26	4.00	333.26"

Page 3, replace lines 9 and 10 with:

"Carrington research center	6,727,962	398,526	7,126,488
Total all funds	$26,284,006	$3,448,783	$29,732,789"

Page 3, replace line 12 with:

"Total general fund	$12,367,190	$1,568,018	$13,935,208"

Page 3, replace line 25 with:

"Grand total general fund	$79,913,767	$17,093,291	$97,007,058"

Page 3, replace line 27 with:

"Grand total all funds	$189,383,429	$15,923,821	$205,307,250"

Page 4, remove lines 3 and 4

Page 4, replace line 11 with:

"Grape and wine program committee	250,000	200,000"

Page 4, replace line 15 with:

"Total all funds	$22,675,000	$9,694,581"

Page 4, replace line 17 with:

"Total general fund	$17,700,000	$7,191,650"

Page 5, after line 17, insert:

"SECTION 8. GRAPE GROWING RESEARCH GRANTS. The main research center line item in subdivision 4 of section 1 of this Act includes $200,000 from the general fund for the main research center to provide grants, in consultation with the grape growers association, to in-state research organizations to conduct grape growing research in the state, for the biennium beginning July 1, 2011, and ending June 30, 2013. The main research center shall require one dollar of matching funds for each four dollars of state funds provided on any grant award.

SECTION 9. AMENDMENT. Section 4-14.2-02 of the North Dakota Century Code is amended and reenacted as follows:

4-14.2-02. Northern crops council - Establishment - Chairman - Meetings - Compensation.

1. The northern crops council is established. The council shall establish policies for the operation of the northern crops institute. The council consists of:
   a. The president of North Dakota state university of agriculture and applied science or the president's designee.
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   c. A representative selected by the North Dakota oilseed council.
   d. A representative selected by the North Dakota barley council.
   e. A representative selected by the North Dakota soybean council.
   f. The agriculture commissioner or the commissioner's designee.
   g. Five to seven producers of northern crops selected by the members designated in subdivisions a through f.
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3. The chairman of the council must be a member of the council elected annually by a majority vote of the council. Provided, the members designated in subdivisions a and f of subsection 1 are not eligible to serve as chairman.

4. The council shall meet at least three times annually at such times and places as must be determined by the council and may meet in special meeting upon such call and notice as may be prescribed by rules adopted by the council. A council member unable to attend a meeting of the council may be represented by a person who has a written proxy from the member."

Renumber accordingly

STATEMENT OF PURPOSE OF AMENDMENT:

House Bill No. 1020 - Summary of Senate Action

	Executive Budget	House Version	Senate Changes	Senate Version
Transportation Institute				
Total all funds	$24,069,961	$24,069,961	$0	$24,069,961
Less estimated income	22,150,333	22,150,333	0	22,150,333
General fund	$1,919,628	$1,919,628	$0	$1,919,628
Branch Research Centers				
Total all funds	$28,812,789	$31,957,789	($2,225,000)	$29,732,789
Less estimated income	14,877,581	15,797,581	0	15,797,581
General fund	$13,935,208	$16,160,208	($2,225,000)	$13,935,208
NDSU Extension Service				
Total all funds	$48,744,454	$48,494,454	($480,000)	$48,014,454
Less estimated income	23,128,810	23,128,810	0	23,128,810
General fund	$25,615,644	$25,365,644	($480,000)	$24,885,644
Northern Crops Institute				
Total all funds	$3,347,307	$3,347,307	$0	$3,347,307
Less estimated income	1,654,725	1,654,725	0	1,654,725
General fund	$1,692,582	$1,692,582	$0	$1,692,582
Main Research Center				
Total all funds	$97,897,571	$98,392,571	$315,000	$98,707,571
Less estimated income	43,973,575	44,133,575	0	44,133,575
General fund	$53,923,996	$54,258,996	$315,000	$54,573,996
Agronomy Seed Farm				
Total all funds	$1,435,168	$1,435,168	$0	$1,435,168
Less estimated income	1,435,168	1,435,168	0	1,435,168
General fund	$0	$0	$0	$0
Bill total				
Total all funds	$204,307,250	$207,697,250	($2,390,000)	$205,307,250
Less estimated income	107,220,192	108,300,192	0	108,300,192
General fund	$97,087,058	$99,397,058	($2,390,000)	$97,007,058

House Bill No. 1020 - Branch Research Centers - Senate Action

	Executive Budget	House Version	Senate Changes	Senate Version
Dickinson Research Center	$5,588,562	$6,388,562		$6,388,562
Central Grasslands Research Center	2,865,847	2,865,847		2,865,847
Hettinger Research Center	3,373,175	3,373,175		3,373,175
Langdon Research Center	2,378,807	2,378,807		2,378,807
North Central Research Center	4,279,821	4,399,821		4,399,821

Williston Research Center	3,200,089	3,200,089		3,200,089
Carrington Research Center	7,126,488	9,351,488	(2,225,000)	7,126,488
Total all funds	$28,812,789	$31,957,789	($2,225,000)	$29,732,789
Less estimated income	14,877,581	15,797,581	0	15,797,581
General fund	$13,935,208	$16,160,208	($2,225,000)	$13,935,208
FTE	95.49	96.49	0.00	96.49

Department No. 628 - Branch Research Centers - Detail of Senate Changes

	Removes Funding for Capital Project[1]	Total Senate Changes
Dickinson Research Center		
Central Grasslands Research Center		
Hettinger Research Center		
Langdon Research Center		
North Central Research Center		
Williston Research Center		
Carrington Research Center	(2,225,000)	(2,225,000)
Total all funds	($2,225,000)	($2,225,000)
Less estimated income	0	0
General fund	($2,225,000)	($2,225,000)
FTE	0.00	0.00

[1] Funding added by the House for the agronomy laboratory capital project at the Carrington Research Center is removed.

House Bill No. 1020 - NDSU Extension Service - Senate Action

	Executive Budget	House Version	Senate Changes	Senate Version
Extension Service	$47,856,654	$47,606,654	($580,000)	$47,026,654
Soil Conservation Committee	887,800	887,800	100,000	987,800
Total all funds	$48,744,454	$48,494,454	($480,000)	$48,014,454
Less estimated income	23,128,810	23,128,810	0	23,128,810
General fund	$25,615,644	$25,365,644	($480,000)	$24,885,644
FTE	255.75	255.75	1.00	256.75

Department No. 630 - NDSU Extension Service - Detail of Senate Changes

	Restores Funding for SBARE Livestock Stewardship Initiative[1]	Adds Funding for Soil Conservation Committee[2]	Removes Funding for Gearing up for Kindergarten[3]	Total Senate Changes
Extension Service	$250,000		($830,000)	($580,000)
Soil Conservation Committee		100,000		100,000
Total all funds	$250,000	$100,000	($830,000)	($480,000)
Less estimated income	0	0	0	0
General fund	$250,000	$100,000	($830,000)	($480,000)
FTE	1.00	0.00	0.00	1.00

[1] Funding is restored for the State Board of Agricultural Research and Education (SBARE) initiative relating to livestock stewardship that was removed by the House.

[2] Funding is added for the soil conservation committee to increase the total funding provided from $887,800 to $987,800.

[3] Funding provided in the executive budget to expand the Gearing Up for Kindergarten program to a statewide scope is removed.

House Bill No. 1020 - Northern Crops Institute - Senate Action

Section 4-14.2-02 of the North Dakota Century Code, relating to the Northern Crops Council, is amended and reenacted to permit the council to stagger the terms of producers of northern crops and representatives of industries so that no more than one producer and one representative's term expires in June 2013.

House Bill No. 1020 - Main Research Center - Senate Action

	Executive Budget	House Version	Senate Changes	Senate Version
Main Research Center	$97,897,571	$98,392,571	$315,000	$98,707,571
Total all funds	$97,897,571	$98,392,571	$315,000	$98,707,571
Less estimated income	43,973,575	44,133,575	0	44,133,575
General fund	$53,923,996	$54,258,996	$315,000	$54,573,996
FTE	329.26	332.26	1.00	333.26

Department No. 640 - Main Research Center - Detail of Senate Changes

	Removes Funding for the State Data Center[1]	Adds Funding for Grape Grower Research[2]	Adds Funding for Livestock Stewardship SBARE Initiative[3]	Total Senate Changes
Main Research Center	($125,000)	$200,000	$240,000	$315,000
Total all funds	($125,000)	$200,000	$240,000	$315,000
Less estimated income	0	0	0	0
General fund	($125,000)	$200,000	$240,000	$315,000
FTE	(1.00)	0.00	2.00	1.00

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[1] Funding and 1 FTE position added by the House for the SBARE initiative relating to the State Data Center is removed.

[2] Funding is added for a grant to conduct research relating to grape growing in the state to be administered by the Main Research Center in consultation with the Grape Growers Association. A section is added requiring a match of $1 for each $4 provided by the state prior to use of funding.

[3] Funding is provided for an SBARE initiative to improve animal productivity and livestock stewardship for increased profitability in the North Dakota livestock industry. This initiative includes 2 FTE technician positions at the Main Research Center.

2011 HOUSE APPROPRIATIONS

CONFERENCE COMMITTEE

HB 1020

2011 HOUSE STANDING COMMITTEE MINUTES

House Appropriations Education and Environment Division
Sakakawea Room, State Capitol

HB 1020
4/13/11
16577

☒ Conference Committee

Committee Clerk Signature Shirley Brannenberg

Explanation or reason for introduction of bill/resolution:

A BILL for an Act to provide an appropriation for defraying the expenses of the extension service, northern crops institute, upper great plains transportation institute, main research center, branch research centers, and agronomy seed farm; to amend and reenact section 4-14.2-02 of the North Dakota Century Code, relating to the northern crops council; to provide for transfers; to provide an exemption; and to declare an emergency.

Minutes: You may make reference to "attached testimony."

Chairman Skarphol: Brought the conference committee on HB 1020 to order and noted that all committee members are present. Directing attention to page 69 in the *Analysis of Changes to the Governor's Budget for Conference Committees,* Attachment # 1 and calling on Senator Bowman to explain the Senate changes.

Senator Bowman: Beginning with an explanation of changes made by the Senate as found on pp. 70-74 of Attachment # 1 or the Senate Bill # .03000 and delineating each of the adjustments.

Chairman Skarphol: With regard to the State Board of Agriculture Research and Education (SBARE) Livestock Stewardship and requesting information on where the information is located.

Senator Bowman: Continuing with an explanation of the Senate changes. The reason is that there are groups of people who are opposed to livestock, and this will get the information out there and improve the industry and make a better product for the consumer.

Rep. Hawken: There are two different livestock pieces. One that you added in for $240,000 improving the animal productivity and livestock stewardship and the one that was requested was $250,000. Is that correct?

Senator Bowman: They requested both of them. All we did is support them because the stewardship one is really important.

Rep. Hawken: It is the $250,000.

Chairman Skarphol: It appears like the $250,000 is in Extension and the $240,000 is in Main Research. So the total $490,000 and the request in the SBARE fund is for $810,000 which would 5 FTE and $120,000 in operating. Did you give them operating money?

Senator Bowman: No. That was what they requested from us and that is the dollars that they requested. If you haven't seen the new research facility down there, it is worth the trip and it will put North Dakota at the top of the list for doing animal research now.

Chairman Skarphol: One FTE in Extension budget and two in ag research, referring to pp. 72-73 in the green book (The Governor's Budget).
Is there operating money incorporated in the Extension one? Usually if you hire FTE you need operating money of some kind.

Sara Chamberlin, Legislative Council Representative: The Livestock Stewardship piece is in the Extension Service from the Executive Budget recommendation. It was removed by the house and included one FTE salary and fringe at $210,000 and $40,000 in operating.

Chairman Skarphol: There is $20,000 operating money there. Without the addition of the Main Research that is strictly the two FTE?

Chamberlin: Yes, on the Main Research there was a line item for $480,000 for four FTE for technical support that was split in half. There was $240,000 for two technical support at the main research center.

Chairman Skarphol: But there is Grape growers' research.

Senator Bowman: Emails were overwhelming on that subject. They requested $200,000 for research with a one to four match. They just barely made the match. The purpose is to give them a variety that they can grow in North Dakota and market. They have to come up with the match.

Chairman Skarphol: A match on a quarterly or monthly basis, just so they come up with the match.

Rep. Hawken: The Data Center has been paid for out of grant funds and other departments at the university. There are a number of university and state agencies that use the data that Dr. Rathge and his crew put together. He is close to retiring and there is a concern that the data piece is extremely important to continue and need two FTE for data. In reviewing the number of agencies that use this date, we gave them one (FTE) hoping that they could find enough financial backing for the second one. The data is used for mapping, weather, Kids Count and they will cease to exist if we don't support them.

Chairman Skarphol: You removed it, do you have information that we weren't provided?

Senator Holmberg: Not high on our priority list within the total budget. Soil conservation is a higher priority which are often the stepchildren of the budget but extremely important to the state. The $125,000 for the state data center and took $100,000 into soil conservation.

Rep. Hawken: There is money for soil conservation in a couple of districts.

Senator Holmberg: This is in addition. What they requested was $150,000. You added $50,000. They could use a larger font at the top of the page when they develop these books.

Chairman Skarphol: Next item for discussion is the capital project that you removed.

Senator Bowman: Capital projects are all the same, Carrington, Hettinger and Langdon. They are prioritized but done in alphabetical order. It is not fair to pick one over the other. We can do all three next time if they are high on the priority list next time because we are done funding the big green house at North Dakota State University. If we had the same budget, hold even, we would be able to do that and still have some money left over. They are important and have needs. There are four grain cleaning facilities they are requesting at over $8M. If we continue to update and improve these so they can do their work there has to be funding to do it.

Chairman Skarphol: The perspective of the House is that we couldn't do them all, get one out of the way and Carrington was chosen because it has the largest volume of crops raised and the need is most critical there. The grain cleaning facilities at $3M each that will be a long time getting approved in the House. Portable units, four of which could be purchased for $3M total but a $3M facility in any one of these center is probably not gonna happen.

Senator Bowman: The information on a portable cleaner is not viable because of the quality that farmers need and the matter of who gets it and at what particular time. This is an issue that should be studied as to how the needs of the producers are met.

Chairman Skarphol: The director of the agronomy seed farm felt that portables would work just fine and if we were going to invest the kind of money discussed we should also include color sorters so they could do more of the things they need to do rather than overinvest in cleaning facilities.

Rep. Hawken: Carrington does 30-50% more agronomy research in every crop and livestock. That was the rational for looking at Carrington aside from the condition of the others.
$250,000 for the greenhouse could go away if that is a concern.

Senator Bowman: Hettinger is a converted granary.

Rep. Hawken: They are all awful.

Chairman Skarphol: That is what Carrington is as well.

Senator Bowman: they all need to be updated and modernized, it is just a question of, do we do it at one time or in sequences.

Meeting Closed

2011 HOUSE STANDING COMMITTEE MINUTES

House Appropriations Education and Environment Division
Sakakawea Room, State Capitol

HB 1020
4/15/11
16654

☒ Conference Committee

Committee Clerk Signature Shirley Branning

Explanation or reason for introduction of bill/resolution:

A BILL for an Act to provide an appropriation for defraying the expenses of the extension service, northern crops institute, upper great plains transportation institute, main research center, branch research centers, and agronomy seed farm; to amend and reenact section 4-14.2-02 of the North Dakota Century Code, relating to the northern crops council; to provide for transfers; to provide an exemption; and to declare an emergency.

Minutes:

Chairman Skarphol: Called the Conference Committee on HB 1020 to order and all members are present. Was the Grape Growers' in the State Board of Agriculture Research and Education (SBARE) recommendation?

Senator Bowman: It was recommended by every grape grower from California to New York. If you are going to have a crop that is going to produce a profit and sort of like agriculture. If we help them some, and in the last session we helped them with $250,000 and a match we thought we would help them this year with $200,000 and a match.

Chairman Skarphol: Quite Frankly, I delete every email that is not from my district. It is not high on the House priority list.
Carrington, you think that we should do them all. The House perspective on that is to move in that direction and get one out of the way. We did damage to the Governor's overall budget by doing it.

Senator Bowman: All three of the agronomy centers are needed. Because Carrington has a bigger volume you rated that higher. That does make sense but Carrington is also getting all of the money for the Canola project. That says this year it is Carrington and no one else. I would like to spread it out over a larger base. It is important to have a breeder, support staff for those and a program that is done right. In the origin request we both agreed to put about $1.88M for infrastructure and operating which includes a lot of the people left out over the last three biennia for those staff, the technical people.
We are moving in a very good direction when we do this.

Rep. Hawken: Distributing Attachment # 1 and speaking to the need for Parenting Resource Centers (PRC) at $25,000 be reinstated. This helps parents be ready to help their child to succeed. This provides no administrative money, strictly doing the program and more funding should be provided.

Chairman Skarphol: How much was in this biennium?

Rep. Hawken: $150,000.

Chairman Skarphol: That is Gearing up for Kindergarten.

Rep. Hawken: It is for PRC had $150,000. It is ongoing and is in the base budget. Requesting that the $830,000 be reinstated. They did a pilot within the resources that they had available.

Chairman Skarphol: Once you get people trained it is a one time thing, the costs should be reduced. Where the pilot was done, is there a continuing cost to continue, one time, does it go up? $830,000 may not sound like a lot but is it a continuing cost, more background may help.
Addressing Sara Chamberlin, Legislative Council Representative and asking where in the green book the overall budget can be found.

Chamberlin: On page 69, see Attachment # 2.

Chairman Skarphol: The total is on the top of p. 70, right? The Senate proposal is $80,000 under the Governor's recommendation.

Chamberlin: Yes.

Chairman Skarphol: The FTE changes reflected on the top of page 70. This indicates only 6 on p. 70. What is the real number, those that are incorporated into the changes that we got? What is the real number of our action? Addressing Tammy Dolan, OMB Analyst.

Dolan: The FTE that is shown for the Executive budget does not include some of the FTE included in the budget. The bill has included a section that allows the research agencies to adjust their FTE as needed based on the amount of funding that they have. The items included so far in the Senate version would be.....

Chamberlin: The book provided by the Ag Research centers and reviewing pp. 91 that will show the SBARE initiatives that were included in the Executive Budget recommendation as follows: The Greenhouse utilities has no associated FTE; the second one Enhancing Soil Productivity and Land Management, p. 39 has nine associated FTE with this initiative remaining in the Bill; infrastructure of $1.88M; on p. 40 there are five FTE associated with this; the next SBARE initiative for infrastructure on p. 9 has no new FTE; 2A for the Extension Service for the Soil Health and Land Management there are three

FTE; one FTE in Livestock Stewardship which was restored is within the budget because it was added back, see Attachment # 3.

Chairman Skarphol: Are any of these reflected in the budget, addressing Dolan.

Chamberlin: The last two would be.

Chairman Skarphol: Adding 19. At the top of p. 70, see attachment # 2,it only shows a change of six when there are 19. We have to be sure it doesn't happen again.
How do we resolve this one?
Requesting Mr. Howe to come to the podium to respond to the cost estimate of $2.25M.
The Carrington Lab deals with the most variety of crops and it would be nice to fit some of that in. Earlier we talked about capital projects in higher education and whether or not those estimates are accurate. Has the state architect looked at that number to see if it is accurate, can it be reduced for now and phase that project in any way?

Rod Howe, Chairman of SBARE: The one figure that I am aware of is the Agronomy Lab would also include a green house addition.

Chairman Skarphol: Similar to the one at the North Central?

Howe: A bit of a breakdown is an estimated cost of the greenhouse is $250,000.
Dr. Grafton suggested phases but the great need is the whole agronomy lab at Carrington.

Chairman Skarphol: Is there new, state of the art equipment that could be delayed?

Howe: When the costs are projected it has to include the furnishings, the lab equipment. Not just the structure.

Chairman Skarphol: Addressing Dolan, have you checked with the architect on his opinion of whether the $2.5M is accurate.

Dolan: No, the greenhouse project was submitted but not in any great detail.

Chairman Skarphol: That is unfortunate.

Senator Bowman: We agreed on funding for the two projects, the soil enhancing productivity project and the infrastructure and operation of all of the facilities bringing some of our college students into those to help the technical people there. Something we have cut short on in the last few years. The green house utilities were the other one.

Howe: We didn't have a choice on the Greenhouse utilities. With regard to the technicians, they are to fill in the holes so the doctoral levels are not doing clerical work. They are necessary but not high dollar FTE to make efficient use of time.

Senator Bowman: Does the Canola Breeder have to be there or could that position be somewhere else?

Howe: Carrington the most efficient place because of the type of research going on there.

Chairman Skarphol: The state of Montana and the superintendent at the Williston Research Center, enlighten the group on what is going on there.

Howe: The Williston Extension and Research Center shares duties with Montana through the Sydney Station. There is concern that the costs be shared that Montana's budget they pay a major portion of the director's salary in the Williston Research and is a shared position. With budget cuts they may eliminate that position which would create a difficulty for Williston to carry on its mission.

Chairman Skarphol: Montana has indicated a likelihood that the relationship will be terminated and ¾ of the salary is paid by Montana. There may be some need for at least contingency appropriations to cover that because, leadership is needed there.

Rep. Hawken: That amount would be $210,000.

Chairman Skarphol: The addition that is going on to the .....Center, the utilities at $20,000 was not included.

Howe: The current director is exceptional.

Chairman Skarphol: Montana wants to sever the relationship because he says North Dakota is doing a great job compared to Montana. We will have to meet again to discuss these issues.

Senator Bowman: One question for the record, the rating of SBARE for prekindergarten, where was it at?

Howe: Rated # 4.

Chairman Skarphol: Meeting closed, to be scheduled at the call of the chair.

2011 HOUSE STANDING COMMITTEE MINUTES

House Appropriations Education and Environment Division
Sakakawea Room, State Capitol

HB 1020
4/18/11
16724

☒ Conference Committee

Committee Clerk Signature Shirley Branning

Explanation or reason for introduction of bill/resolution:

A BILL for an Act to provide an appropriation for defraying the expenses of the extension service, northern crops institute, upper great plains transportation institute, main research center, branch research centers, and agronomy seed farm; to amend and reenact section 4-14.2-02 of the North Dakota Century Code, relating to the northern crops council; to provide for transfers; to provide an exemption; and to declare an emergency.

Minutes:

You may make reference to "attached testimony."

Chairman Skarphol: Called the Conference Committee to order to hear HB 1020 Ag Extension and Research and noting that all members are present. Discussing the loss of the Director of the Williston Research center and the potential loss of participation by the state of Montana in funding that position. Montana funds 50% and calling on Dr. Ken Grafton.

Dr. Ken Grafton, Director of the North Dakota Agriculture Experiment Stations: North Dakota contracts with Montana State University for 50% of the Dr, Bergman's time. Dr. Bergman is the Director of the Williston Research Extension Center as well as the Eastern Ag Research Center in Sydney, Montana. Our 50% time commitment represents 50% of the salary and fringe benefits.

Chairman Skarphol: We are currently contracting and if that relationship were to be severed and we were to fully fund that position for the biennium.....

Dr. Grafton: We would need approximately $210,000 for the biennium. That would be similar to every other faculty FTE or scientist FTE.

Chairman Skarphol: As far as the utilities on that addition for the Ernie French Center, no dollars were requested.

Dr. Grafton: Yes, at approximately $20,000.

Chairman Skarphol: You said $20-$30,000 based on the fact it is geothermal. Oversights, that you are aware of?

Dr. Grafton: After we presented to the House we were informed that Main station is responsible of special assessment on 12th Ave N. (Fargo) which is on the south edge of campus The total is $553,000, biannually is close to $82,000.

Chairman Skarphol: Was it incorporated in the Senate?

Senator Holmberg: When the initial HB 1003 had a line item to pay off special assessments it was included and both of our sides went to just paying them in the next two years, now they say in an issue of fairness special assessments on all other items will be paid except this was missed. Otherwise every special assessment would have been paid under Board of Higher Education for everything except the main station.

Chairman Skarphol: Was it missed intentially in HB 1003?

Senator Holmberg: Further work was needed.

Rep. Hawken: Is this the appropriate place if we do this?

Senator Holmberg: It is low in the water.

Rep. Hawken: Would like to see added back in the money for Gearing up for Kindergarten and State Data System. I would not be averse to putting in the Hettinger and Carrington Stations.

Chairman Skarphol: With regard to the Senate's policy, what is the estimate of where we are at on this one as compared to the Governor's budget?

Senator Bowman: Before we would add anything to the budget we would be $80,000 less than the Governor's budget.

Rep. Hawken: There are $20,000 in there for the Grape Grower's budget, growing would go on regardless of those dollars. It is not a program that is going to stop. That would be an additional $200,000 that would help with the bottom line. The money that is put into this budget we get money back in this budget through seed, livestock all bring revenue to North Dakota.

Senator Bowman: As you expand into programs as Gearing Up for Kindergarten the resources that become available to do the research start to shrink. This program will grow. Four years ago when it was started, this was not discussed in the last two sessions. I did go along with parenting, addition of parenting but now to get into a whole other part of it, I started to see something grow that is going to shrink what we want to do in research and extension requests. My highest priority is to get the research done because of there is good research and profitability to the producer it turns into a better family relationship when

it gets down to the kids because they are not fighting over money as much. The highest priority to get the research done, generate as much money as possible.

Rep. Hawken: Part of the research and extension has included a piece that has worked with families. We have added to programs, like the beef center program at $2M last session. We do that in almost every instance. If we want to take all of the homemaking out of this budget, that is one thing. But to not think that an investment in our children is worth money and is a piece of research.....If the hang up is Gearing Up for Kindergarten, let's forget that piece. The ongoing cost for Gearing Up for Kindergarten would be $300,000. Next session the request would have been for $300,000 not more because then the grants would be coming from a different source. I recommend that funding be added for Regional Centers because people are needed in the resource centers. If the program is the problem, there are other ways to deal with the program. The people in those resource centers are needed. Our children are our most important crop.

Chairman Skarphol: Why is it in Extension rather than in Education?

Senator O'Connell: On the Commission on Education, did it get in there and got put in the funding bill. What happened?

Rep. Hawken: It was a grant. It is in this budget because that is where the parenting resources centers are and that is part of extension. Extension does education and has for years on how to plant crops, and all kinds of pieces. It is research but it is also education.

Chairman Skarphol: Interest on the Senate side to put it back or any part of it? Two head shakes opposed to doing anything with it. Are there any issues that I raised with besides the two research centers?

Senator Holmberg: We need to restore special assessments that would have been paid for if HB 1003 in its original form had passed but it didn't. We need to add the $82 and change.

Rep. Hawken: Just so it is on the record that we are not going to support this piece for children. I would like to put forth a motion that we put $400,000 funding in for Parenting Resource Centers.

Rep. Williams: Second

Chairman Skarphol: Same mechanism, less money.

Rep. Hawken: It would allow them to fund their centers and they could, then work the program if that was their choice.

Roll Call Vote: 4-2-0, Opposed by Senators Bowman and Holmberg. Motion Fails

Chairman Skarphol: With regard to the Director's position (at the Williston Station). This may be dissolved but it is not a certainty. The contingency type mechanism would be appropriate that in the event that ....It does not necessarily affect the bottom line but still could be a contingency.

Senator Holmberg: Move to appropriate a contingency fund if that relationship expires that there be available up to $200.000 to fully fund that position as we fund other positions in the state system.

Senator O'Connell: Second

Roll Call Vote: 6-0-0. Motion carried.

Senator Bowman: Motion that With the recent additions to the budget recommend the $200,000 out of the budget for the Grape Growers. Keep this budget to where we are.

Senator Holmberg: Second.

Roll Call Vote: 6-0-0. Motion carried.

Senator Holmberg: Requesting **Sara Chamberlin, Legislative Council Representative**, to provide the amount now, considering the changes that have been made in relation to the Executive Recommendation. We added $82,000, we took out $200,000, we took out....

Chairman Skarphol: We are about $12,000 above the Governor.

Rep. Hawken: The Senate added $240,000 for livestock. The $250,000 that was taken out was put back in but than an additional $240,000 so there is another source of income.

Chairman Skarphol: A portion of that livestock was in Extension and a portion was in Main Research.

Chamberlin: Senate had a version at a bill total of $205.3M. The changes are as follows: Removing $200,000 for Grape Growers grant and adding $830,000 for special assessments. This would bring the bill total to $205.19M. Compared to the Executive Budget which was $204.3M so it is a reduction of $883,000.

Senator Holmberg: How did we jump way over?

Chamberlin: The Senate version is at $205.3M so it is more than the Executive budget.

Senator Bowman: Is that before the estimated income is deducted. $200M ....

Chamberlin: That is the bill total, do you want just general fund?

Senator Bowman: If you look at just General fund dollars for all three of them.....Page 73 showing the House Version and the Senate Version below it. Then the Extension part of the budget, the Branch Research Centers and there was only about $2M difference from the House to the Senate version.

Chamberlin: The bill total was being computed which was a total of $800,00 provided to Dickinson. Without that .....

Senator Holmberg: Looking at page 70, top of page of green book, it says $205,307 and of that we can reduce that by $200,000 and add in the $83,000. Is that right.

Chairman Skarphol: On our actions today, we do have to include the contingency, correct?

Sara Chamberlin: That is an appropriation within an appropriation so it would not be included in the bill total.

Chairman Skarphol: Asking for agreement. We took out $200,000 and we added $210,000 and $83,000 so we are $93,000 above what the Senate Version was.

Senator Holmberg: The item on top of page 70 is every penny that is in the bill. Not divided out by Section. We passed it out at $205.307M is exactly $1M over the Governor's budget.
The general fund section in this bill was the $80,000 under the Executive Recommendation, initially and then we have added the $210,000 and taken the $283,000 so we are at $93,000 to the general fund.

Chairman Skarphol: So we are $13,000 over the Governor's recommendation.
Calling Rod Howe to the podium. Has anything been overlooked?

Rod Howe, Director State Board of Research and Education: We followed the list reasonably closely. There was one great need hanging out there it would be the Carrington lab. We ask that you do what is best for agriculture and go as far as you can.

Senator O'Connell: Match on the Grape Growers?

Howe: The Wine and Grape commission has been through several grants through the Ag department. They will continue to have a battle to achieve the matching funds. I will, for the record, add that the Wine and Grape producers were invited to the State Board of Agriculture Research and Education (SBARE) process and they chose another pathway to follow. There is value in the wine and grape monies but we have higher priorities for agriculture in the SBARE budget.

Rep. Hawken: On the additional $240,000 for the livestock research. Where was that? We also didn't put any money in here for the State data center; many operations rely on the state data center. What would we lose if we didn't have that?

Howe: the Livestock Research Technicians.... It was in the ESBARE budget and to pick on one group, the Humane Society of the United States passed 97 laws in 2010 in regard to animal rights. I would like to see livestock treated appropriately but with accurate information on Livestock Stewardship.

Rep. Hawken: This will next time go to the base budget and it's additional FTE.

Howe: Yes

Chairman Skarphol: It is to be in the SBARE budget in Extension in number 5 in the main research. It is $250,000 in Extension and $240,000 in Main Research.

Howe: It will have two different functions.

Chairman Skarphol: It does need both aspects to be effective?

Howe: To be most effective, yes.

Senator Bowman: The Senate is satisfied with the additions and want to know where you are so we can wrap this up.

Chairman Skarphol: Waiting for an answer on the contingency from Chamberlin.

Chamberlain: Because the contingency is contingent on whether or not Montana would be able to provide funds, that amount would be included in the bill. The Senate passed $97,100,058 and compared to the Executive budget that was less $80,000 in general funds. The changes suggested were to add $83,000, reduce $200,000 and add the $210,000 so the overall bill total is $97,100,058. Compared to the Executive Budget this is $13,000 less.

Senator Holmberg: This budget with $13,000 more than the Executive budget is saleable. There are things in here that we have no choice. We had to add the funding the contingency which may or may not be spent and if that doesn't happen, what happens to the $210 it just goes back, or do they fall under the rules of higher ed and continue funding?

Tammy Dolan, OMB Analyst: If the contingency is not met than it would not be added, it would not become part of their base budget unless that contingency is added.

Chairman Skarphol: If the relationship were severed two months after the start of the next biennium we'd still be below the Governor's recommendation.

Senator Holmberg: It is outside of our control.

Rep. Hawken: Is there any feel at all whether we have data or not? If we talk about research but we are willing to let that piece go away. In two years you will know that you need it. It appears to be shortsighted.

Senator Holmberg: It wouldn't be the first time.

Senator Bowman: **Move that the Senate recede from its Amendments and further Amend.**

Senator O'Connell: Second

Senator Holmberg: Could the amendments when they come down, be circulated among the members, prior to anything happening.

Chairman Skarphol: We will try and get those to everyone as soon as they are available. That would include the contingency appropriation for the Williston Center, the specials at the main station and to remove the Grape Growers.

Chamberlin: I don't believe there was discussion on the utilities piece.

Chairman Skarphol: There seemed to be no interest in doing anything about that. Williston will have to deal with that.

Rep. Hawken: Continued discussion from the Oil Revenue Fund for funding from the additional oil revenue in Dickinson needs to be addressed. There is still discussion of changing the method of how that is funded so that does not need to be added every year. It needs either to be in the budget or they need to do something different. It should be intent or something so that it will be addressed.

Senator Holmberg: That budget is still out there. Language regarding Dickinson State University and its oil income, there was a onetime contingent to help them transition away from reliance on that money. HB 1033 was passed this morning, was that broad enough so the legislature could study that under higher education? We keep putting in money and that is the revenue source to support the Dickinson research, which is dropping.

Chairman Skarphol: We can make sure that we address it in HB 1003.

Rep. Hawken: The extension, they may be better at trying to figure out how the best way to handle that is than we are. It needs to be noted that we need to fix it.

Chairman Skarphol: As it came into play when the oil revenue developed, it was thought that it shouldn't be just a gift. It should actually offset some the costs associated with it and the attempt has been to keep that somewhat stable during the intervening time as prices become somewhat stable or they strike more oil.
There is a motion and a second.

Roll Call Vote: 5-1-0 Opposed Rep. Hawken

Motion Carried

The Conference Committee Meeting on HB 1020 is adjourned.

2011 HOUSE CONFERENCE COMMITTEE ROLL CALL VOTES

Committee: Appropriations – Education and Environment

Bill/Resolution No. HB 1020 as (re) engrossed

Date: 4/18/11

Roll Call Vote #: 1

Action Taken

- ☐ HOUSE accede to Senate amendments
- ☐ HOUSE accede to Senate amendments and further amend
- ☐ SENATE recede from Senate amendments
- ☒ SENATE recede from Senate amendments and amend as follows

House/Senate Amendments on HJ/SJ page(s) --

- ☐ Unable to agree, recommends that the committee be discharged and a new committee be appointed

((Re) Engrossed) _____ was placed on the Seventh order of business on the calendar

Motion Made by: Rep. Hawken Seconded by: Rep. Williams

Representatives				Yes	No		Senators				Yes	No
Chairman Skarphol	X			X			Senator Bowman	X				X
Rep. Hawken	X			X			Senator Holmberg	X				X
Rep. Williams	X			X			Senator O'Connell	X			X	

Vote Count Yes: 4 No: 2 Absent: 0

House Carrier _____ Senate Carrier _____

LC Number _____ _____ of amendment

LC Number _____ _____ of engrossment

Emergency clause added or deleted

Statement of purpose of amendment

2011 HOUSE CONFERENCE COMMITTEE ROLL CALL VOTES

Committee: Appropriations – Education and Environment

Bill/Resolution No. HB 1020 as (re) engrossed

Date: 4/18/11

Roll Call Vote #: 2

Action Taken

- ☐ HOUSE accede to Senate amendments
- ☐ HOUSE accede to Senate amendments and further amend
- ☐ SENATE recede from Senate amendments
- ☒ SENATE recede from Senate amendments and amend as follows

House/Senate Amendments on HJ/SJ page(s) --

- ☐ Unable to agree, recommends that the committee be discharged and a new committee be appointed

((Re) Engrossed) _____ was placed on the Seventh order of business on the calendar

Motion Made by: Senator Holmberg Seconded by: Senator O'Connell

Representatives				Yes	No		Senators				Yes	No
Chairman Skarphol	X			X			Senator Bowman	X			X	
Rep. Hawken	X			X			Senator Holmberg	X			X	
Rep. Williams	X			X			Senator O'Connell	X			X	

Vote Count Yes: 6 No: 0 Absent: 0

House Carrier _____ Senate Carrier _____

LC Number _____ _____ of amendment

LC Number _____ . _____ of engrossment

Emergency clause added or deleted

Statement of purpose of amendment

2011 HOUSE CONFERENCE COMMITTEE ROLL CALL VOTES

Committee: Appropriations – Education and Environment

Bill/Resolution No. HB 1020 as (re) engrossed

Date: 4/18/11

Roll Call Vote #: 3

Action Taken

- ☐ HOUSE accede to Senate amendments
- ☐ HOUSE accede to Senate amendments and further amend
- ☐ SENATE recede from Senate amendments
- ☒ SENATE recede from Senate amendments and amend as follows

House/Senate Amendments on HJ/SJ page(s) --

- ☐ Unable to agree, recommends that the committee be discharged and a new committee be appointed

((Re) Engrossed) _____ was placed on the Seventh order of business on the calendar

Motion Made by: Senator Bowman Seconded by: Senator Holmberg

Representatives				Yes	No		Senators				Yes	No
Chairman Skarphol	X			X			Senator Bowman	X			X	
Rep. Hawken	X			X			Senator Holmberg	X			X	
Rep. Williams	X			X			Senator O'Connell	X			X	

Vote Count Yes: 6 No: 0 Absent: 0

House Carrier _____ Senate Carrier _____

LC Number _____ _____ of amendment

LC Number _____ . _____ of engrossment

Emergency clause added or deleted

Statement of purpose of amendment

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Prepared by the Legislative Council staff for
Conference Committee
April 18, 2011

PROPOSED AMENDMENTS TO ENGROSSED HOUSE BILL NO. 1020

That the Senate recede from its amendments as printed on pages 1581-1586 of the House Journal and pages 1341-1345 of the Senate Journal and that Engrossed House Bill No. 1020 be amended as follows:

Page 1, line 3, after the first semicolon insert "to amend and reenact section 4-14.2-02 of the North Dakota Century Code, relating to the northern crops council;"

Page 1, line 3, after the second semicolon insert "to provide contingent funding;"

Page 1, replace lines 20 through 22 with:

"Extension service	$47,091,489	($64,835)	$47,026,654
Soil conservation committee	837,800	150,000	987,800
Total all funds	$47,929,289	$85,165	$48,014,454"

Page 1, remove line 24

Page 2, replace line 1 with:

"Total general fund	$22,000,412	$2,885,232	$24,885,644
Full-time equivalent positions	255.75	1.00	256.75"

Page 2, replace line 22 with:

"Main research center	$87,530,418	$11,059,555	$98,589,973"

Page 2, replace line 26 with:

"Total all funds	$87,530,418	$11,059,555	$98,589,973"

Page 2, replace lines 28 and 29 with:

"Total general fund	$42,517,151	$11,939,247	$54,456,39
Full-time equivalent positions	329.26	4.00	333.26"

Page 3, replace lines 8 through 10 with:

"Williston research center	2,922,183	487,906	3,410,089
Carrington research center	6,727,962	398,526	7,126,488
Total all funds	$26,284,006	$3,658,783	$29,942,789"

Page 3, replace lines 12 and 13 with:

"Total general fund	$12,367,190	$1,778,018	$14,145,208
Full-time equivalent positions	95.49	2.00	97.49"

Page 3, replace line 25 with:

"Grand total general fund	$79,913,767	$17,185,693	$97,099,460"

Page 3, replace line 27 with:

"Grand total all funds	$189,383,429	$16,016,223	$205,399,652"

Page 4, remove lines 3 and 4

Page 4, replace line 15 with:

"Total all funds	$22,675,000	$9,494,581"

Page 4, replace line 17 with:

"Total general fund	$17,700,000	$6,991,650"

Page 4, after line 21, insert:

"**SECTION 3. CONTINGENT FUNDING - WILLISTON RESEARCH CENTER DIRECTOR.** Of the funds appropriated to the Williston research center in subdivision 5 of section 1 of this Act, $210,000 from the general fund is contingent and subject to the provisions of this section. If funding for fifty percent of the 2011-13 biennium costs relating to the director position at the Williston research center is not provided by the Montana state university eastern agricultural research center, the Williston research center may spend up to $210,000 and hire one full-time equivalent director position for the biennium beginning July 1, 2011, and ending June 30, 2013."

Page 5, after line 17, insert:

"**SECTION 9. AMENDMENT.** Section 4-14.2-02 of the North Dakota Century Code is amended and reenacted as follows:

4-14.2-02. Northern crops council - Establishment - Chairman - Meetings - Compensation.

1. The northern crops council is established. The council shall establish policies for the operation of the northern crops institute. The council consists of:

   a. The president of North Dakota state university of agriculture and applied science or the president's designee.

   b. A representative selected by the North Dakota wheat commission.

   c. A representative selected by the North Dakota oilseed council.

   d. A representative selected by the North Dakota barley council.

   e. A representative selected by the North Dakota soybean council.

   f. The agriculture commissioner or the commissioner's designee.

   g. Five to seven producers of northern crops selected by the members designated in subdivisions a through f.

   h. Up to four representatives of industries that process northern crops selected by the members designated in subdivisions a through f.

2. a. The term of office for each member of the council, except the president of North Dakota state university of agriculture and applied science and the agriculture commissioner, is three years, and those members are limited to two 3-year terms. Each term of office begins with the first reorganizational meeting after the date of appointment.

   b. Notwithstanding subdivision a, during the 2011-13 biennium, the council shall:

      (1) Stagger by lot the terms of the producers of northern crops so that no more than one of the producers' terms expires in June 2013; and

      (2) Stagger by lot the terms of the representatives of industries that process northern crops so that no more than one of the representatives' terms expires in June 2013.

3. The chairman of the council must be a member of the council elected annually by a majority vote of the council. Provided, the members designated in subdivisions a and f of subsection 1 are not eligible to serve as chairman.

4. The council shall meet at least three times annually at such times and places as must be determined by the council and may meet in special meeting upon such call and notice as may be prescribed by rules adopted by the council. A council member unable to attend a meeting of the council may be represented by a person who has a written proxy from the member."

Renumber accordingly

STATEMENT OF PURPOSE OF AMENDMENT:

House Bill No. 1020 - Summary of Conference Committee Action

	Executive Budget	House Version	Conference Committee Changes	Conference Committee Version	Senate Version	Comparison to Senate
Transportation Institute						
Total all funds	$24,069,961	$24,069,961	$0	$24,069,961	$24,069,961	$0
Less estimated income	22,150,333	22,150,333	0	22,150,333	22,150,333	0
General fund	$1,919,628	$1,919,628	$0	$1,919,628	$1,919,628	$0
Branch Research Centers						
Total all funds	$28,812,789	$31,957,789	($2,015,000)	$29,942,789	$29,732,789	$210,000
Less estimated income	14,877,581	15,797,581	0	15,797,581	15,797,581	0
General fund	$13,935,208	$16,160,208	($2,015,000)	$14,145,208	$13,935,208	$210,000
NDSU Extension Service						
Total all funds	$48,744,454	$48,494,454	($480,000)	$48,014,454	$48,014,454	$0
Less estimated income	23,128,810	23,128,810	0	23,128,810	23,128,810	0
General fund	$25,615,644	$25,365,644	($480,000)	$24,885,644	$24,885,644	$0
Northern Crops Institute						
Total all funds	$3,347,307	$3,347,307	$0	$3,347,307	$3,347,307	$0
Less estimated income	1,654,725	1,654,725	0	1,654,725	1,654,725	0
General fund	$1,692,582	$1,692,582	$0	$1,692,582	$1,692,582	$0
Main Research Center						
Total all funds	$97,897,571	$98,392,571	$197,402	$98,589,973	$98,707,571	($117,598)
Less estimated income	43,973,575	44,133,575	0	44,133,575	44,133,575	0
General fund	$53,923,996	$54,258,996	$197,402	$54,456,398	$54,573,996	($117,598)
Agronomy Seed Farm						

Total all funds	$1,435,168	$1,435,168	$0	$1,435,168	$1,435,168	$0
Less estimated income	1,435,168	1,435,168	0	1,435,168	1,435,168	0
General fund	$0	$0	$0	$0	$0	$0
Bill total						
Total all funds	$204,307,250	$207,697,250	($2,297,598)	$205,399,652	$205,307,250	$92,402
Less estimated income	107,220,192	108,300,192	0	108,300,192	108,300,192	0
General fund	$97,087,058	$99,397,058	($2,297,598)	$97,099,460	$97,007,058	$92,402

House Bill No. 1020 - Transportation Institute - Conference Committee Action

The conference committee and Senate did not change the House version for the Upper Great Plains Transportation Institute.

House Bill No. 1020 - Branch Research Centers - Conference Committee Action

	Executive Budget	House Version	Conference Committee Changes	Conference Committee Version	Senate Version	Comparison to Senate
Dickinson Research Center	$5,588,562	$6,388,562		$6,388,562	$6,388,562	
Central Grasslands Research Center	2,865,847	2,865,847		2,865,847	2,865,847	
Hettinger Research Center	3,373,175	3,373,175		3,373,175	3,373,175	
Langdon Research Center	2,378,807	2,378,807		2,378,807	2,378,807	
North Central Research Center	4,279,821	4,399,821		4,399,821	4,399,821	
Williston Research Center	3,200,089	3,200,089	210,000	3,410,089	3,200,089	210,000
Carrington Research Center	7,126,488	9,351,488	(2,225,000)	7,126,488	7,126,488	
Total all funds	$28,812,789	$31,957,789	($2,015,000)	$29,942,789	$29,732,789	$210,000
Less estimated income	14,877,581	15,797,581	0	15,797,581	15,797,581	0
General fund	$13,935,208	$16,160,208	($2,015,000)	$14,145,208	$13,935,208	$210,000
FTE	95.49	96.49	1.00	97.49	96.49	1.00

Department No. 628 - Branch Research Centers - Detail of Conference Committee Changes

	Removes Funding for Capital Project[1]	Adds Contingency Appropriation for Director of Williston Research Center[2]	Total Conference Committee Changes
Dickinson Research Center			
Central Grasslands Research Center			
Hettinger Research Center			
Langdon Research Center			
North Central Research Center			
Williston Research Center		210,000	210,000
Carrington Research Center	(2,225,000)		(2,225,000)
Total all funds	($2,225,000)	$210,000	($2,015,000)
Less estimated income	0	0	0
General fund	($2,225,000)	$210,000	($2,015,000)
FTE	0.00	1.00	1.00

[1] Funding added by the House for the agronomy laboratory capital project at the Carrington Research Center is removed. The Senate also removed this funding.

[2] The conference committee provided a contingent appropriation to add 1 FTE director position at the Williston Research Center if the funding for 50 percent of the position from the Montana State University Eastern Agricultural Research Center is no longer available.

House Bill No. 1020 - NDSU Extension Service - Conference Committee Action

	Executive Budget	House Version	Conference Committee Changes	Conference Committee Version	Senate Version	Comparison to Senate
Extension Service	$47,856,654	$47,606,654	($580,000)	$47,026,654	$47,026,654	
Soil Conservation Committee	887,800	887,800	100,000	987,800	987,800	
Total all funds	$48,744,454	$48,494,454	($480,000)	$48,014,454	$48,014,454	$0
Less estimated income	23,128,810	23,128,810	0	23,128,810	23,128,810	0
General fund	$25,615,644	$25,365,644	($480,000)	$24,885,644	$24,885,644	$0
FTE	255.75	255.75	1.00	256.75	256.75	0.00

Department No. 630 - NDSU Extension Service - Detail of Conference Committee Changes

	Restores Funding for SBARE Livestock Stewardship Initiative[1]	Adds Funding for Soil Conservation Committee[2]	Removes Funding for Gearing Up for Kindergarten[3]	Total Conference Committee Changes
Extension Service	$250,000		($830,000)	($580,000)
Soil Conservation Committee		100,000		100,000
Total all funds	$250,000	$100,000	($830,000)	($480,000)
Less estimated income	0	0	0	0
General fund	$250,000	$100,000	($830,000)	($480,000)
FTE	1.00	0.00	0.00	1.00

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[1] Funding is restored for the State Board of Agricultural Research and Education (SBARE) initiative relating to livestock stewardship that was removed by the House. The Senate also restored this funding.

[2] Funding is added for the soil conservation committee to increase the total funding provided from $887,800 to $987,800. The Senate added this funding.

[3] Funding provided in the executive budget to expand the Gearing Up for Kindergarten program to a statewide scope is removed. The Senate also removed this funding.

House Bill No. 1020 - Northern Crops Institute - Conference Committee Action

Section 4-14.2-02, relating to the Northern Crops Council, is amended to permit the council to stagger the terms of producers of northern crops and representatives of industries so that no more than one producer's term and one representative's term expires in June 2013. The Senate also made this change.

House Bill No. 1020 - Main Research Center - Conference Committee Action

	Executive Budget	House Version	Conference Committee Changes	Conference Committee Version	Senate Version	Comparison to Senate
Main Research Center	$97,897,571	$98,392,571	$197,402	$98,589,973	$98,707,571	($117,598)

Total all funds	$97,897,571	$98,392,571	$197,402	$98,589,973	$98,707,571	($117,598)
Less estimated income	43,973,575	44,133,575	0	44,133,575	44,133,575	0
General fund	$53,923,996	$54,258,996	$197,402	$54,456,398	$54,573,996	($117,598)
FTE	329.26	332.26	1.00	333.26	333.26	0.00

Department No. 640 - Main Research Center - Detail of Conference Committee Changes

	Removes Funding for the State Data Center[1]	Adds Funding for Livestock Stewardship SBARE Initiative[2]	Adds Funding for Special Assessments[3]	Total Conference Committee Changes
Main Research Center	($125,000)	$240,000	$82,402	$197,402
Total all funds	($125,000)	$240,000	$82,402	$197,402
Less estimated income	0	0	0	0
General fund	($125,000)	$240,000	$82,402	$197,402
FTE	(1.00)	2.00	0.00	1.00

[1] Funding and 1 FTE position added by the House for the SBARE initiative relating to the State Data Center is removed. The Senate also removed this FTE and related funding.

[2] Funding is provided for an SBARE initiative to improve animal productivity and livestock stewardship for increased profitability in the North Dakota livestock industry. This initiative includes 2 FTE technician positions at the Main Research Center. The Senate also made this change.

[3] Funding is added for estimated 2011-13 special assessments assigned to the Main Research Center.

The conference committee removed $200,000 from the general fund added by the Senate for a grant to conduct research relating to grape growing in the state to be administered by the Main Research Center in consultation with the Grape Growers Association.

House Bill No. 1020 - Agronomy Seed Farm - Conference Committee Action

The conference committee and Senate did not change the House version for the Agronomy Seed Farm.

2011 HOUSE CONFERENCE COMMITTEE ROLL CALL VOTES

Committee: Appropriations – Education and Environment

Bill/Resolution No. HB 1020 as (re)engrossed

Date: 4/18/11

Roll Call Vote #: 1

Action Taken

- ☐ HOUSE accede to Senate amendments
- ☐ HOUSE accede to Senate amendments and further amend
- ☐ SENATE recede from Senate amendments
- ☒ SENATE recede from Senate amendments and amend as follows

House/Senate Amendments on HJ/SJ page(s) 1581 -- 1586

- ☐ Unable to agree, recommends that the committee be discharged and a new committee be appointed

((Re)Engrossed) HB 1020 was placed on the Seventh order of business on the calendar

Motion Made by: Senator Bowman Seconded by: Senator O'Connell

Representatives				Yes	No		Senators				Yes	No
Chairman Skarphol	X			X			Senator Bowman	X			X	
Rep. Hawken	X				X		Senator Holmberg	X			X	
Rep. Williams	X			X			Senator O'Connell	X			X	

Vote Count Yes: 5 No: 1 Absent: 0

House Carrier Rep. Skarphol Senate Carrier Sen. Bowman

LC Number 11.8161 . 02005 of amendment

LC Number _____ . _____ of engrossment

Emergency clause added or deleted

Statement of purpose of amendment

REPORT OF CONFERENCE COMMITTEE

HB 1020, as engrossed: Your conference committee (Sens. Bowman, Holmberg, O'Connell and Reps. Skarphol, Hawken, Williams) recommends that the **SENATE RECEDE** from the Senate amendments, adopt amendments as follows, and place HB 1020 on the Seventh order:

That the Senate recede from its amendments as printed on pages 1581-1586 of the House Journal and pages 1341-1345 of the Senate Journal and that Engrossed House Bill No. 1020 be amended as follows:

Page 1, line 3, after the first semicolon insert "to amend and reenact section 4-14.2-02 of the North Dakota Century Code, relating to the northern crops council;"

Page 1, line 3, after the second semicolon insert "to provide contingent funding;"

Page 1, replace lines 20 through 22 with:

"Extension service	$47,091,489	($64,835)	$47,026,654
Soil conservation committee	837,800	150,000	987,800
Total all funds	$47,929,289	$85,165	$48,014,454"

Page 1, remove line 24

Page 2, replace line 1 with:

"Total general fund	$22,000,412	$2,885,232	$24,885,644
Full-time equivalent positions	255.75	1.00	256.75"

Page 2, replace line 22 with:

"Main research center	$87,530,418	$11,059,555	$98,589,973"

Page 2, replace line 26 with:

"Total all funds	$87,530,418	$11,059,555	$98,589,973"

Page 2, replace lines 28 and 29 with:

"Total general fund	$42,517,151	$11,939,247	$54,456,39
Full-time equivalent positions	329.26	4.00	333.26"

Page 3, replace lines 8 through 10 with:

"Williston research center	2,922,183	487,906	3,410,089
Carrington research center	6,727,962	398,526	7,126,488
Total all funds	$26,284,006	$3,658,783	$29,942,789"

Page 3, replace lines 12 and 13 with:

"Total general fund	$12,367,190	$1,778,018	$14,145,208
Full-time equivalent positions	95.49	2.00	97.49"

Page 3, replace line 25 with:

"Grand total general fund	$79,913,767	$17,185,693	$97,099,460"

Page 3, replace line 27 with:

"Grand total all funds	$189,383,429	$16,016,223	$205,399,652"

Page 4, remove lines 3 and 4

Page 4, replace line 15 with:

"Total all funds	$22,675,000	$9,494,581"

Page 4, replace line 17 with:

"Total general fund	$17,700,000	$6,991,650"

Page 4, after line 21, insert:

"**SECTION 3. CONTINGENT FUNDING - WILLISTON RESEARCH CENTER DIRECTOR.** Of the funds appropriated to the Williston research center in subdivision 5 of section 1 of this Act, $210,000 from the general fund is contingent and subject to the provisions of this section. If funding for fifty percent of the 2011-13 biennium costs relating to the director position at the Williston research center is not provided by the Montana state university eastern agricultural research center, the Williston research center may spend up to $210,000 and hire one full-time equivalent director position for the biennium beginning July 1, 2011, and ending June 30, 2013."

Page 5, after line 17, insert:

"**SECTION 9. AMENDMENT.** Section 4-14.2-02 of the North Dakota Century Code is amended and reenacted as follows:

4-14.2-02. Northern crops council - Establishment - Chairman - Meetings - Compensation.

1. The northern crops council is established. The council shall establish policies for the operation of the northern crops institute. The council consists of:
   a. The president of North Dakota state university of agriculture and applied science or the president's designee.
   b. A representative selected by the North Dakota wheat commission.
   c. A representative selected by the North Dakota oilseed council.
   d. A representative selected by the North Dakota barley council.
   e. A representative selected by the North Dakota soybean council.
   f. The agriculture commissioner or the commissioner's designee.
   g. Five to seven producers of northern crops selected by the members designated in subdivisions a through f.
   h. Up to four representatives of industries that process northern crops selected by the members designated in subdivisions a through f.
2. a. The term of office for each member of the council, except the president of North Dakota state university of agriculture and applied science and the agriculture commissioner, is three years, and those

members are limited to two 3-year terms. Each term of office begins with the first reorganizational meeting after the date of appointment.

b. Notwithstanding subdivision a, during the 2011-13 biennium, the council shall:

(1) Stagger by lot the terms of the producers of northern crops so that no more than one of the producers' terms expires in June 2013; and

(2) Stagger by lot the terms of the representatives of industries that process northern crops so that no more than one of the representatives' terms expires in June 2013.

3. The chairman of the council must be a member of the council elected annually by a majority vote of the council. Provided, the members designated in subdivisions a and f of subsection 1 are not eligible to serve as chairman.

4. The council shall meet at least three times annually at such times and places as must be determined by the council and may meet in special meeting upon such call and notice as may be prescribed by rules adopted by the council. A council member unable to attend a meeting of the council may be represented by a person who has a written proxy from the member."

Renumber accordingly

STATEMENT OF PURPOSE OF AMENDMENT:

House Bill No. 1020 - Summary of Conference Committee Action

	Executive Budget	House Version	Conference Committee Changes	Conference Committee Version	Senate Version	Comparison to Senate
Transportation Institute						
Total all funds	$24,069,961	$24,069,961	$0	$24,069,961	$24,069,961	$0
Less estimated income	22,150,333	22,150,333	0	22,150,333	22,150,333	0
General fund	$1,919,628	$1,919,628	$0	$1,919,628	$1,919,628	$0
Branch Research Centers						
Total all funds	$28,812,789	$31,957,789	($2,015,000)	$29,942,789	$29,732,789	$210,000
Less estimated income	14,877,581	15,797,581	0	15,797,581	15,797,581	0
General fund	$13,935,208	$16,160,208	($2,015,000)	$14,145,208	$13,935,208	$210,000
NDSU Extension Service						
Total all funds	$48,744,454	$48,494,454	($480,000)	$48,014,454	$48,014,454	$0
Less estimated income	23,128,810	23,128,810	0	23,128,810	23,128,810	0
General fund	$25,615,644	$25,365,644	($480,000)	$24,885,644	$24,885,644	$0
Northern Crops Institute						
Total all funds	$3,347,307	$3,347,307	$0	$3,347,307	$3,347,307	$0
Less estimated income	1,654,725	1,654,725	0	1,654,725	1,654,725	0
General fund	$1,692,582	$1,692,582	$0	$1,692,582	$1,692,582	$0
Main Research Center						
Total all funds	$97,897,571	$98,392,571	$197,402	$98,589,973	$98,707,571	($117,598)
Less estimated income	43,973,575	44,133,575	0	44,133,575	44,133,575	0
General fund	$53,923,996	$54,258,996	$197,402	$54,456,398	$54,573,996	($117,598)
Agronomy Seed Farm						
Total all funds	$1,435,168	$1,435,168	$0	$1,435,168	$1,435,168	$0
Less estimated income	1,435,168	1,435,168	0	1,435,168	1,435,168	0
General fund	$0	$0	$0	$0	$0	$0
Bill total						
Total all funds	$204,307,250	$207,697,250	($2,297,598)	$205,399,652	$205,307,250	$92,402
Less estimated income	107,220,192	108,300,192	0	108,300,192	108,300,192	0
General fund	$97,087,058	$99,397,058	($2,297,598)	$97,099,460	$97,007,058	$92,402

House Bill No. 1020 - Transportation Institute - Conference Committee Action

The conference committee and Senate did not change the House version for the Upper Great Plains Transportation Institute.

House Bill No. 1020 - Branch Research Centers - Conference Committee Action

	Executive Budget	House Version	Conference Committee Changes	Conference Committee Version	Senate Version	Comparison to Senate
Dickinson Research Center	$5,588,562	$6,388,562		$6,388,562	$6,388,562	
Central Grasslands Research Center	2,865,847	2,865,847		2,865,847	2,865,847	
Hettinger Research Center	3,373,175	3,373,175		3,373,175	3,373,175	
Langdon Research Center	2,378,807	2,378,807		2,378,807	2,378,807	
North Central Research Center	4,279,821	4,399,821		4,399,821	4,399,821	
Williston Research Center	3,200,089	3,200,089	210,000	3,410,089	3,200,089	210,000
Carrington Research Center	7,126,488	9,351,488	(2,225,000)	7,126,488	7,126,488	
Total all funds	$28,812,789	$31,957,789	($2,015,000)	$29,942,789	$29,732,789	$210,000
Less estimated income	14,877,581	15,797,581	0	15,797,581	15,797,581	0
General fund	$13,935,208	$16,160,208	($2,015,000)	$14,145,208	$13,935,208	$210,000
FTE	95.49	96.49	1.00	97.49	96.49	1.00

Department No. 628 - Branch Research Centers - Detail of Conference Committee Changes

	Removes Funding for Capital Project[1]	Adds Contingency Appropriation for Director of Williston Research Center[2]	Total Conference Committee Changes
Dickinson Research Center			
Central Grasslands Research Center			
Hettinger Research Center			
Langdon Research Center			
North Central Research Center			
Williston Research Center		210,000	210,000
Carrington Research Center	(2,225,000)		(2,225,000)
Total all funds	($2,225,000)	$210,000	($2,015,000)
Less estimated income	0	0	0
General fund	($2,225,000)	$210,000	($2,015,000)
FTE	0.00	1.00	1.00

[1] Funding added by the House for the agronomy laboratory capital project at the Carrington Research Center is removed. The Senate also removed this funding.

[2] The conference committee provided a contingent appropriation to add 1 FTE director position at the Williston Research Center if the funding for 50 percent of the position from the Montana State University Eastern Agricultural Research Center is no longer available.

House Bill No. 1020 - NDSU Extension Service - Conference Committee Action

	Executive Budget	House Version	Conference Committee	Conference Committee	Senate Version	Comparison to Senate

			Changes	Version		
Extension Service	$47,856,654	$47,606,654	($580,000)	$47,026,654	$47,026,654	
Soil Conservation Committee	887,800	887,800	100,000	987,800	987,800	
Total all funds	$48,744,454	$48,494,454	($480,000)	$48,014,454	$48,014,454	$0
Less estimated income	23,128,810	23,128,810	0	23,128,810	23,128,810	0
General fund	$25,615,644	$25,365,644	($480,000)	$24,885,644	$24,885,644	$0
FTE	255.75	255.75	1.00	256.75	256.75	0.00

Department No. 630 - NDSU Extension Service - Detail of Conference Committee Changes

	Restores Funding for SBARE Livestock Stewardship Initiative[1]	Adds Funding for Soil Conservation Committee[2]	Removes Funding for Gearing Up for Kindergarten[3]	Total Conference Committee Changes
Extension Service	$250,000		($830,000)	($580,000)
Soil Conservation Committee		100,000		100,000
Total all funds	$250,000	$100,000	($830,000)	($480,000)
Less estimated income	0	0	0	0
General fund	$250,000	$100,000	($830,000)	($480,000)
FTE	1.00	0.00	0.00	1.00

[1] Funding is restored for the State Board of Agricultural Research and Education (SBARE) initiative relating to livestock stewardship that was removed by the House. The Senate also restored this funding.

[2] Funding is added for the soil conservation committee to increase the total funding provided from $887,800 to $987,800. The Senate added this funding.

[3] Funding provided in the executive budget to expand the Gearing Up for Kindergarten program to a statewide scope is removed. The Senate also removed this funding.

House Bill No. 1020 - Northern Crops Institute - Conference Committee Action

Section 4-14.2-02, relating to the Northern Crops Council, is amended to permit the council to stagger the terms of producers of northern crops and representatives of industries so that no more than one producer's term and one representative's term expires in June 2013. The Senate also made this change.

House Bill No. 1020 - Main Research Center - Conference Committee Action

	Executive Budget	House Version	Conference Committee Changes	Conference Committee Version	Senate Version	Comparison to Senate
Main Research Center	$97,897,571	$98,392,571	$197,402	$98,589,973	$98,707,571	($117,598)
Total all funds	$97,897,571	$98,392,571	$197,402	$98,589,973	$98,707,571	($117,598)
Less estimated income	43,973,575	44,133,575	0	44,133,575	44,133,575	0
General fund	$53,923,996	$54,258,996	$197,402	$54,456,398	$54,573,996	($117,598)
FTE	329.26	332.26	1.00	333.26	333.26	0.00

Department No. 640 - Main Research Center - Detail of Conference Committee

Changes

	Removes Funding for the State Data Center[1]	Adds Funding for Livestock Stewardship SBARE Initiative[2]	Adds Funding for Special Assessments[3]	Total Conference Committee Changes
Main Research Center	($125,000)	$240,000	$82,402	$197,402
Total all funds	($125,000)	$240,000	$82,402	$197,402
Less estimated income	0	0	0	0
General fund	($125,000)	$240,000	$82,402	$197,402
FTE	(1.00)	2.00	0.00	1.00

[1] Funding and 1 FTE position added by the House for the SBARE initiative relating to the State Data Center is removed. The Senate also removed this FTE and related funding.

[2] Funding is provided for an SBARE initiative to improve animal productivity and livestock stewardship for increased profitability in the North Dakota livestock industry. This initiative includes 2 FTE technician positions at the Main Research Center. The Senate also made this change.

[3] Funding is added for estimated 2011-13 special assessments assigned to the Main Research Center.

The conference committee removed $200,000 from the general fund added by the Senate for a grant to conduct research relating to grape growing in the state to be administered by the Main Research Center in consultation with the Grape Growers Association.

House Bill No. 1020 - Agronomy Seed Farm - Conference Committee Action

The conference committee and Senate did not change the House version for the Agronomy Seed Farm.

Engrossed HB 1020 was placed on the Seventh order of business on the calendar.

2011 TESTIMONY

HB 1020

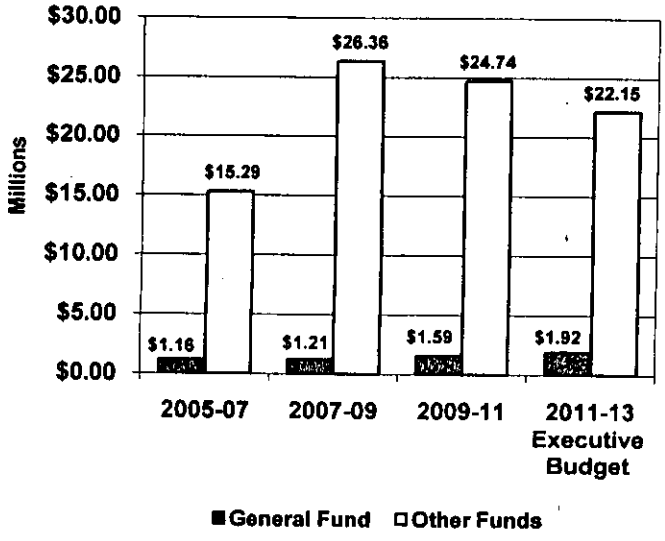
Prepared by the North Dakota Legislative Council staff for House Appropriations
January 24, 2011

Department 627 - Upper Great Plains Transportation Institute
House Bill No. 1020

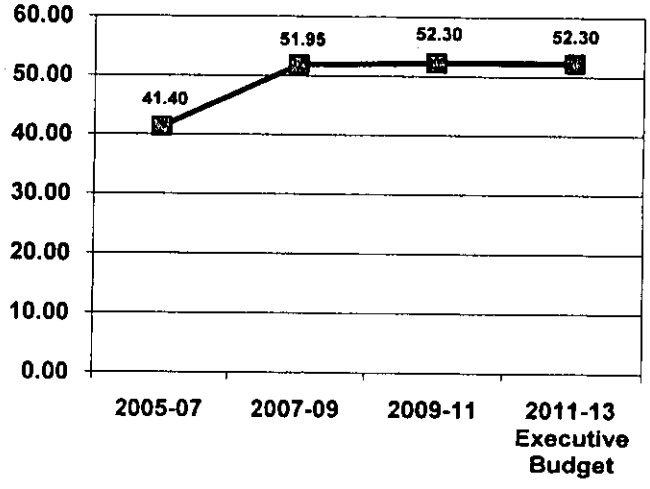
	FTE Positions	General Fund	Other Funds	Total
2011-13 Executive Budget	52.30	$1,919,625	$22,150,336	$24,069,961
2009-11 Legislative Appropriations	52.30[1]	1,589,793	24,737,199	26,326,992
Increase (Decrease)	0.00	$329,832	($2,586,863)	($2,257,031)

[1]The 2009-11 appropriation was based on 53.95 FTE positions authorized by the 2009 Legislative Assembly. Section 8 of 2009 Senate Bill No. 2020 authorized the State Board of Higher Education to adjust FTE positions as needed. A total of 1.65 FTE positions were removed pursuant to this section and reported to the Office of Management and Budget (OMB) for a total of 52.3 FTE positions.

Agency Funding



FTE Positions



Ongoing and One-Time General Fund Appropriations

	Ongoing General Fund Appropriation	One-Time General Fund Appropriation	Total General Fund Appropriation
2011-13 Executive Budget	$1,919,625	$0	$1,919,625
2009-11 Legislative Appropriations	1,589,793	0	1,589,793
Increase (Decrease)	$329,832	$0	$329,832

Executive Budget Highlights

	General Fund	Other Funds	Total
1. Removes one-time funding provided in the 2009-11 biennium for capital assets relating to federal funds for the Center for Transportation Study capital project		($3,000,000)	($3,000,000)
2. Removes funding for equipment over $5,000 provided in the 2009-11 biennium		($90,000)	($90,000)

Other Sections in Bill

Additional income appropriation - Section 3 provides that in addition to the amount appropriated as other funds any other income received from federal acts, private grants, gifts, and donations, or from other sources received by the Upper Great Plains Transportation Institute, is appropriated for the purposes designated in the act, grant, gift, or donation for the 2009-11 biennium.

FTE position adjustments - Section 5 authorizes the State Board of Higher Education to adjust or increase FTE positions for the Upper Great Plains Transportation Institute and report any adjustments to OMOB.

Unexpended general fund authority - Excess income - Section 6 authorizes the continuation of any unspent general fund appropriation authority and excess income received by the Upper Great Plains Transportation Institute into the 2013-15 biennium.

Continuing Appropriations

No continuing appropriations for this agency.

Significant Audit Findings

None.

Major Related Legislation

At this time, no major related legislation has been introduced affecting this agency.

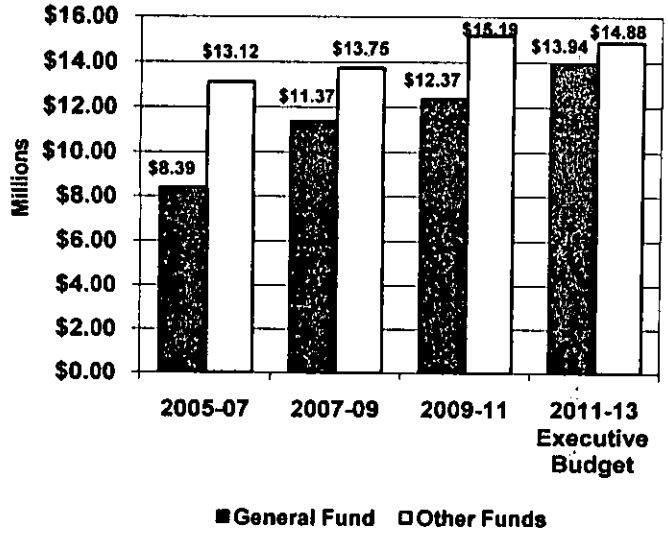
Prepared by the North Dakota Legislative Council staff for House Appropriations
January 24, 2011

Department 628 - Branch Research Centers
House Bill No. 1020

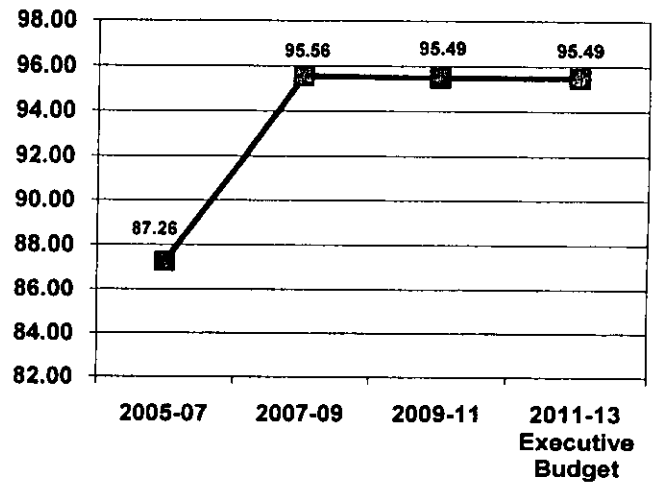
	FTE Positions	General Fund	Other Funds	Total
2011-13 Executive Budget	95.49	$13,935,208	$14,877,581	$28,812,789
2009-11 Legislative Appropriations	95.49[1]	12,367,190	15,191,816	27,559,006
Increase (Decrease)	0.00	$1,568,018	($314,235)	$1,253,783

[1]The 2009-11 appropriation was based on 97.26 FTE positions authorized by the 2009 Legislative Assembly. Section 8 of 2009 Senate Bill No. 2020 authorized the State Board of Higher Education to adjust FTE positions as needed. A total of 1.77 FTE positions were removed pursuant to this section and reported to the Office of Management and Budget (OMB) for a total of 95.49 FTE positions.

Agency Funding



FTE Positions



Ongoing and One-Time General Fund Appropriations

	Ongoing General Fund Appropriation	One-Time General Fund Appropriation	Total General Fund Appropriation
2011-13 Executive Budget	$13,935,208	$0	$13,935,208
2009-11 Legislative Appropriations	12,367,190	0	12,367,190
Increase (Decrease)	$1,568,018	$0	$1,568,018

Executive Budget Highlights

	General Fund	Other Funds	Total
Dickinson Research Center			
1. Removes one-time funding provided in the 2009-11 biennium for capital projects relating to the Dickinson Research Center parking lot and landscaping		($350,000)	($350,000)
2. Removes other one-time funding provided in the 2009-11 biennium from the permanent oil tax trust fund for operating expenses at the Dickinson Research Center		($925,000)	($925,000)
3. Reduces funding for equipment over $5,000 to provide a total of $502,363 of other funds	($100,000)	$1	($99,999)
4. Reduces funding for miscellaneous supplies	($411)	($1,262)	($1,673)
Central Grasslands Research Center			
1. Increases funding for equipment over $5,000 to provide a total of $117,501, of which $100,000 is from the general fund	$100,000	($92,499)	$7,501

2. Provides funding for State Board of Agricultural Research and Education priorities:			
Soil productivity and land management	$120,000		$120,000
Infrastructure support	$25,000		$25,000
Hettinger Research Center			
1. Reduces funding for equipment over $5,000 to provide a total of $100,000 of other funds	($100,000)	($100,000)	($200,000)
2. Adjusts funding due to an estimated increase in revenue collections	($30,449)	$294,733	$264,284
3. Provides funding for State Board of Agricultural Research and Education priorities:			
Soil productivity and land management	$350,000		$350,000
Langdon Research Center			
1. Reduces funding for equipment over $5,000 to provide a total of $100,000 from the general fund	$100,000	($184,500)	($84,500)
2. Adjusts funding due to an estimated increase in revenue collections	($16,000)	$422,974	$406,974
3. Provides funding for State Board of Agricultural Research and Education priorities:			
Infrastructure support	$25,000		$25,000
North Central Research Center			
1. Reduces funding for equipment over $5,000 to provide a total of $105,000, of which $100,000 is from the general fund	$100,000	($639,440)	($539,440)
2. Adjusts funding due to an estimated increase in revenue collections	($1,755)	$687,755	$686,000
3. Provides funding for State Board of Agricultural Research and Education priorities:			
Infrastructure support	$25,000		$25,000
Williston Research Center			
1. Reduces funding for equipment over $5,000 to provide a total of $275,012, of which $100,000 is from the general fund		($4,988)	($4,988)
2. Provides funding for State Board of Agricultural Research and Education priorities:			
Soil productivity and land management	$120,000		$120,000
Infrastructure support	$25,000		$25,000
Carrington Research Center			
1. Reduces funding for equipment over $5,000 to provide a total of $593,696 of other funds	($100,000)	($42,638)	($142,638)
2. Decreases funding for miscellaneous supplies	($54,794)		($54,794)
3. Provides funding for State Board of Agricultural Research and Education priorities:			
Soil productivity and land management	$350,000		$350,000

Other Sections in Bill

Additional income appropriation - Section 3 provides that in addition to the amount appropriated as other funds any other income from federal acts, private grants, gifts, and donations, or from other sources received by the branch research centers, is appropriated for the purposes designated in the act, grant, gift, or donation for the 2009-11 biennium.

Transfer authority - Section 4 authorizes the transfer of appropriation authority between the Main Research Center, the branch research centers, NDSU Extension Service, and Northern Crops Institute and provides that any transfers be reported to OMB.

FTE position adjustments - Section 5 authorizes the State Board of Higher Education to adjust or increase FTE positions for the branch research centers and provides that any adjustments be reported to OMB.

Unexpended general fund - Excess income - Section 6 authorizes the continuation of any unexpended general fund appropriation and excess income received by the branch research centers into the 2013-15 biennium.

Branch research center renovations - Section 7 continues any unspent selected funding from Subdivision 4, Section 1, of Chapter 48 of the 2009 Session laws. This includes money from the general fund for the Main Research Center's appropriation for renovations and additions to the North Central Research Center ($624,000), the Williston Research Center ($1,680,000), the Langdon Research Center ($144,000), and the Dickinson Research Center ($489,200).

Continuing Appropriations

No continuing appropriations for this agency.

Significant Audit Findings

None.

Major Related Legislation

At this time, there has been no major legislation introduced affecting this agency.

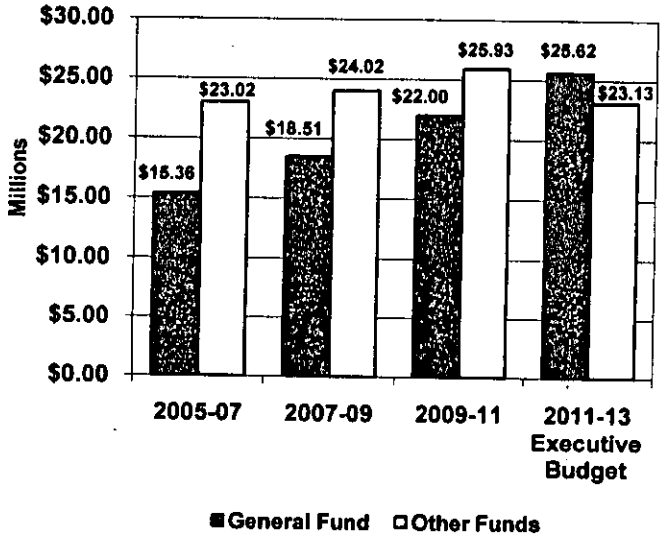
Prepared by the North Dakota Legislative Council staff for House Appropriations
January 24, 2011

Department 630 - NDSU Extension Service
House Bill No. 1020

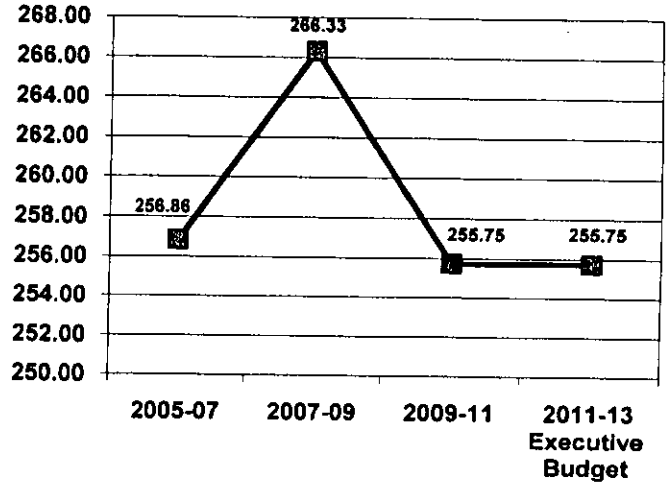
	FTE Positions	General Fund	Other Funds	Total
2011-13 Executive Budget	255.75	$25,615,644	$23,128,810	$48,744,454
2009-11 Legislative Appropriations	255.75[1]	22,000,412	25,928,877	47,929,289
Increase (Decrease)	0.00	$3,615,232	($2,800,067)	$815,165

[1]The 2009-11 appropriation was based on 268.63 FTE positions authorized by the 2009 Legislative Assembly. Section 8 of 2009 Senate Bill No. 2020 authorized the State Board of Higher Education to adjust FTE positions as needed. A total of 12.88 FTE positions were removed pursuant to this section and reported to the Office of Management and Budget (OMB) for a total of 255.75 FTE positions.

Agency Funding



FTE Positions



Ongoing and One-Time General Fund Appropriations

	Ongoing General Fund Appropriation	One-Time General Fund Appropriation	Total General Fund Appropriation
2011-13 Executive Budget	$25,615,644	$0	$25,615,644
2009-11 Legislative Appropriations	22,000,412	0	22,000,412
Increase (Decrease)	$3,615,232	$0	$3,615,232

Executive Budget Highlights

	General Fund	Other Funds	Total
1. Provides funding for State Board of Agricultural Research and Education priorities ($1,390,000), including:			
Technical salary support	$450,000		$450,000
Soil health and land management	$690,000		$690,000
Livestock stewardship	$250,000		$250,000
2. Provides funding for the gearing up for kindergarten program. The program will be offered through the Extension Service's parenting resource centers.	$830,000		$830,000
3. Decreases funding from the general fund for changes in operating expenses and soil conservation funding. Major changes include:	($738,047)	($14,510)	($752,557)

	Increase (Decrease)	Total Provided
Travel	($36,141)	$1,497,749
Supply/material - Professional	($200,000)	$211,016
Miscellaneous supplies	($366,416)	$119,103
Other equipment under $5,000	($50,000)	$196,305
Operating fees and services	($200,000)	$606,371

	Increase (Decrease)	Total Provided
Fees - Professional services	($50,000)	$641,424
Soil Conservation operating fees and services	$150,000	$887,800

4. Removes funding for equipment over $5,000 ($650,000) ($650,000)

Other Sections in Bill

Additional income appropriation - Section 3 provides that in addition to the amount appropriated as other funds any other income from federal acts, private grants, gifts, and donations, or from other sources received by the NDSU Extension Service, is appropriated for the purposes designated in the act, grant, gift, or donation for the 2009-11 biennium.

Transfer authority - Section 4 authorizes the transfer of appropriation authority between the Main Research Center, the branch research centers, NDSU Extension Service, and Northern Crops Institute and provides that any transfers be reported to OMB.

FTE position adjustments - Section 5 authorizes the State Board of Higher Education to adjust or increase FTE positions for the NDSU Extension Service and provides that any adjustments be reported to OMB.

Unexpended general fund - Excess income - Section 6 authorizes the continuation of any unexpended general fund appropriation and excess income received by the NDSU Extension Service into the 2013-15 biennium.

Continuing Appropriations

No continuing appropriations for this agency.

Significant Audit Findings

None.

Major Related Legislation

At this time, there has been no major legislation introduced affecting this agency.

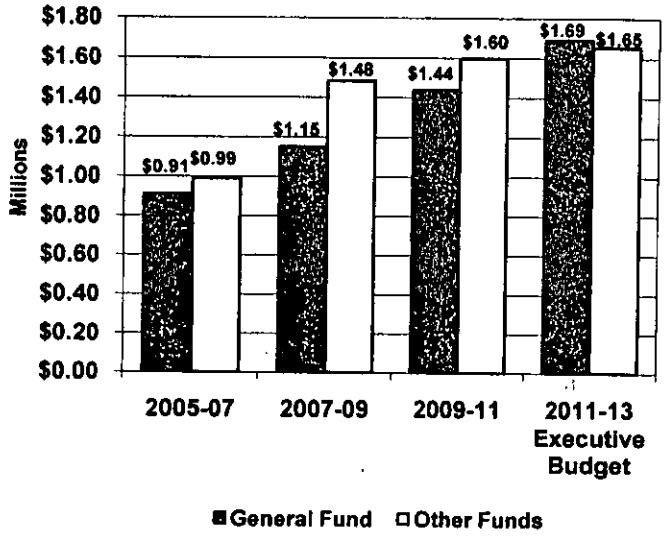
Prepared by the North Dakota Legislative Council staff for House Appropriations
January 24, 2011

Department 638 - Northern Crops Institute
House Bill No. 1020

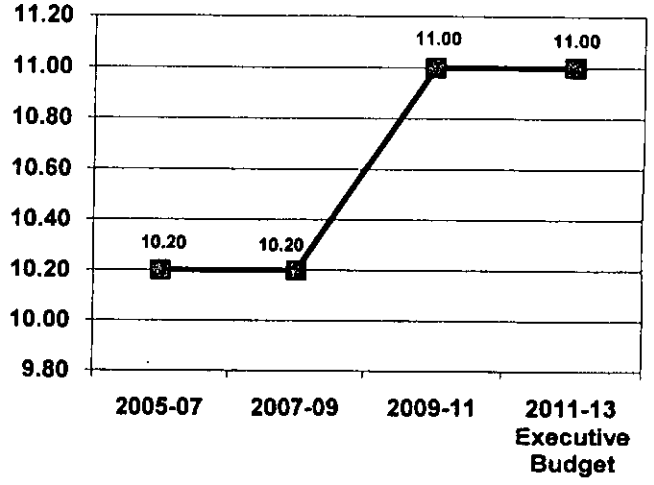
	FTE Positions	General Fund	Other Funds	Total
2011-13 Executive Budget	11.00	$1,692,582	$1,654,725	$3,347,307
2009-11 Legislative Appropriations	11.00[1]	1,439,221	1,598,265	3,037,486
Increase (Decrease)	0.00	$253,361	$56,460	$309,821

[1]The 2009-11 appropriation was based on 11.20 FTE positions authorized by the 2009 Legislative Assembly. Section 8 of 2009 Senate Bill No. 2020 authorized the State Board of Higher Education to adjust FTE positions as needed. A .20 FTE position was removed pursuant to this section and reported to the Office of Management and Budget (OMB) for a total of 11.00 FTE positions.

Agency Funding



FTE Positions



Ongoing and One-Time General Fund Appropriations

	Ongoing General Fund Appropriation	One-Time General Fund Appropriation	Total General Fund Appropriation
2011-13 Executive Budget	$1,692,582	$0	$1,692,582
2009-11 Legislative Appropriations	1,439,221	0	1,439,221
Increase (Decrease)	$253,361	$0	$253,361

Executive Budget Highlights

	General Fund	Other Funds	Total
1. Increases funding for equipment over $5,000 to provide a total of $285,000, of which $4,111 is from the general fund	($11,889)	$240,889	$229,000

Other Sections in Bill

Additional income appropriation - Section 3 provides that in addition to the amount appropriated as other funds any other income from federal acts, private grants, gifts, and donations, or from other sources received by the Northern Crops Institute, is appropriated for the purposes designated in the act, grant, gift, or donation for the 2009-11 biennium.

Transfer authority - Section 4 authorizes the transfer of appropriation authority between the Main Research Center, the branch research centers, NDSU Extension Service, and Northern Crops Institute and provides that any transfers be reported to OMB.

FTE position adjustments - Section 5 authorizes the State Board of Higher Education to adjust or increase FTE positions for the Northern Crops Institute and provides that any adjustments be reported to OMB.

Unexpended general fund - Excess income - Section 6 of Senate Bill No. 2020 authorizes the continuation of any unexpended general fund appropriation and excess income received by the Northern Crops Institute into the 2013-15 biennium.

Continuing Appropriations

No continuing appropriations for this agency.

Significant Audit Findings

None.

Major Related Legislation

At this time, no major legislation has been introduced affecting this agency.

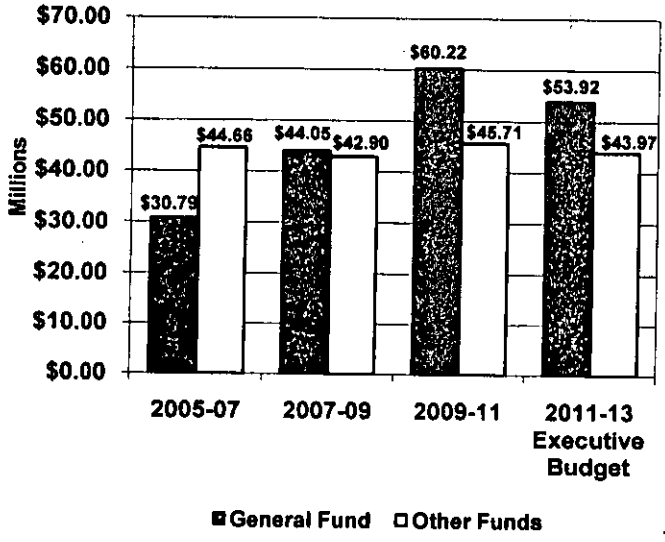
Prepared by the North Dakota Legislative Council staff for House Appropriations
January 24, 2011

Department 640 - NDSU Main Research Center
House Bill No. 1020

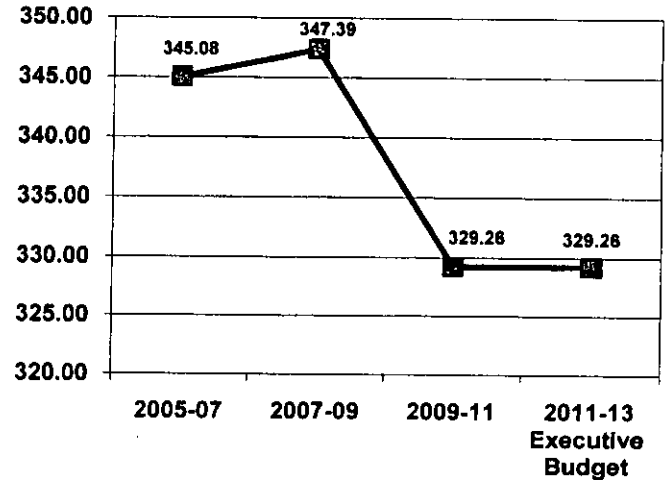
	FTE Positions	General Fund	Other Funds	Total
2011-13 Executive Budget	329.26	$53,923,996	$43,973,575	$97,897,571
2009-11 Legislative Appropriations	329.26[1]	60,217,151	45,713,267	105,930,418
Increase (Decrease)	0.00	($6,293,155)	($1,739,692)	($8,032,847)

[1]The 2009-11 appropriation was based on 352.39 FTE positions authorized by the 2009 Legislative Assembly. Section 8 of 2009 Senate Bill No. 2020 authorized the State Board of Higher Education to adjust FTE positions as needed. A total of 23.13 FTE positions were removed pursuant to this section and reported to the Office of Management and Budget (OMB) for a total of 329.26 FTE positions.

Agency Funding



FTE Positions



Ongoing and One-Time General Fund Appropriations

	Ongoing General Fund Appropriation	One-Time General Fund Appropriation	Total General Fund Appropriation
2011-13 Executive Budget	$46,932,346	$6,991,650	$53,923,996
2009-11 Legislative Appropriations	42,767,151	17,450,000	60,217,151
Increase (Decrease)	$4,165,195	($10,458,350)	($6,293,155)

Executive Budget Highlights

	General Fund	Other Funds	Total
1. Removes one-time funding provided in the 2009-11 biennium relating to:			
Federal fiscal stimulus funding for the installation of geothermal heating in the greenhouse construction project		($700,000)	($700,000)
Deferred maintenance	($450,000)		($450,000)
Capital projects, including the greenhouse construction project ($11.5 million), beef research facility ($2.6 million), and renovations at the North Central, Williston, Langdon, and Dickinson Research Centers ($2.9 million)	($17,000,000)	($56,000)	($17,056,000)
Grape research funding	($250,000)		($250,000)
2. Adds **one-time funding** for:			
Capital bond payments	$421,690		$421,690
Capital projects - Greenhouse construction project	$6,991,650	$2,502,931	$9,494,581
3. Provides funding for State Board of Agricultural Research and Education priorities ($2,423,622), including:			

Greenhouse utilities	$173,622		$173,622
Soil productivity and land management	$470,000		$470,000
Operations and infrastructure support	$1,900,000		$1,900,000
4. Decreases funding for operating expenses as follows:	($1,082,341)		($1,082,341)
5. Increases funding for equipment over $5,000 to provide a total of $3,475,500, of which $405,000 is from the general fund		$220,500	$220,500

	Increase (Decrease)	Total Provided
Travel	($82,341)	$3,339,854
Supply/material - Professional	($250,000)	$2,956,422
Miscellaneous supplies	($250,000)	$3,972,456
Operating fees and services	($250,000)	$1,205,039
Fees - Professional services	($250,000)	$808,818

Other Sections in Bill

Additional income appropriation - Section 3 provides that in addition to the amount appropriated as other funds any other income from federal acts, private grants, gifts, and donations, or from other sources received by the Main Research Center, is appropriated for the purposes designated in the act, grant, gift, or donation for the 2009-11 biennium.

Transfer authority - Section 4 authorizes the transfer of appropriation authority between the Main Research Center, the branch research centers, NDSU Extension Service, and Northern Crops Institute and provides that any transfers be reported to OMB.

FTE position adjustments - Section 5 authorizes the State Board of Higher Education to adjust or increase FTE positions for the Main Research Center and provides that any adjustments be reported to OMB.

Unexpended general fund - Excess income - Section 6 authorizes the continuation of any unexpended general fund appropriation authority or excess income received by the Main Research Center into the 2013-15 biennium.

Appropriations continued from 2009-11 biennium - Section 7 provides that 2007-09 appropriations for the research greenhouse complex project for the Main Research Center are not subject to the provisions of North Dakota Century Code Section 54-44.1-11, and any unspent authority from this appropriation or related revenues are available and may be spent during the biennium beginning July 1, 2011, and ending June 30, 2013.

Emergency - Section 8 provides the appropriation for the research greenhouse complex ($9,494,581) is an emergency.

Continuing Appropriations

No continuing appropriations for this agency.

Significant Audit Findings

None.

Major Related Legislation

At this time, no major legislation has been introduced affecting this agency.

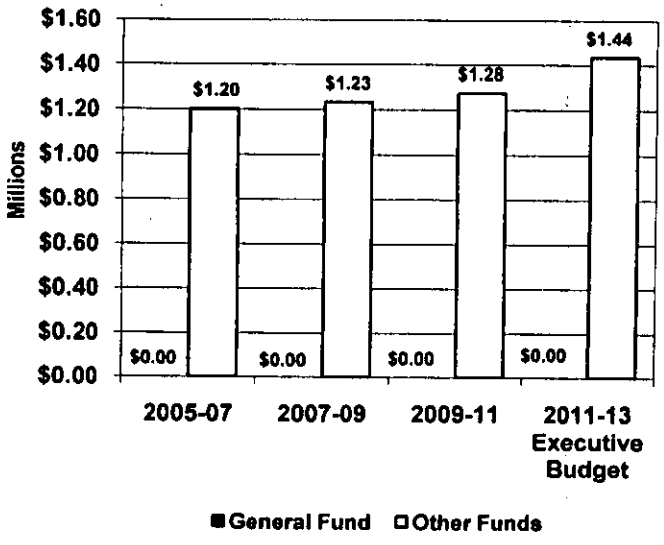
Prepared by the North Dakota Legislative Council staff for House Appropriations
January 24, 2011

Department 649 - Agronomy Seed Farm
House Bill No. 1020

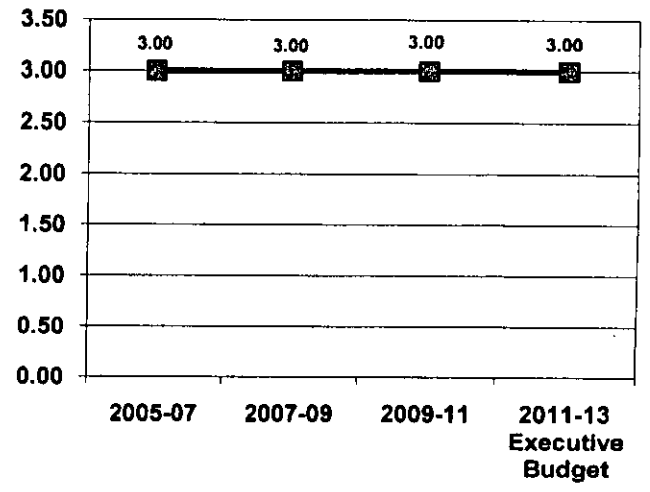
	FTE Positions	General Fund	Other Funds	Total
2011-13 Executive Budget	3.00	$0	$1,435,168	$1,435,168
2009-11 Legislative Appropriations	3.00[1]	0	1,275,238	1,275,238
Increase (Decrease)	0.00	$0	$159,930	$159,930

[1]The 2009-11 appropriation was based on 3.00 FTE positions authorized by the 2009 Legislative Assembly. Section 8 of 2009 Senate Bill No. 2020 authorized the State Board of Higher Education to adjust FTE positions as needed. The State Board of Higher Education did not change any FTE positions pursuant to this section.

Agency Funding



FTE Positions



Executive Budget Highlights

	General Fund	Other Funds	Total
1. Adjusts funding for equipment over $5,000 to provide a total of $301,000 of other funds		$127,000	$127,000

Other Sections in Bill

Additional income appropriation - Section 3 provides that in addition to the amount appropriated as other funds any other income from federal acts, private grants, gifts, and donations, or from other sources received by the Agronomy Seed Farm, is appropriated for the purposes designated in the act, grant, gift, or donation for the 2009-11 biennium.

FTE position adjustments - Section 5 authorizes the State Board of Higher Education to adjust or increase FTE positions for the Agronomy Seed Farm and report any adjustments to the Office of Management and Budget.

Unexpended general fund - Excess income - Section 6 authorizes the continuation of any excess income received by the Agronomy Seed Farm into the 2013-15 biennium.

Continuing Appropriations

No continuing appropriations for this agency.

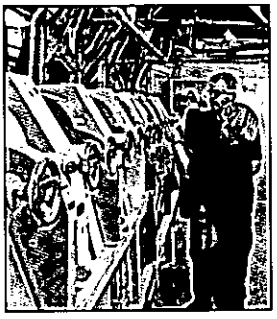
Significant Audit Findings

None.

Major Related Legislation

At this time, no major legislation has been introduced affecting this agency.

attachment #1
HB 1020 1/25/11



NCI

Northern Crops Institute

NORTH DAKOTA STATE UNIVERSITY

2011-2013 BIENNIAL BUDGET

ND HOUSE APPROPRIATIONS COMMITTEE

Representative Robert Skarphol

9:00 a.m., Tuesday, January 25, 2011

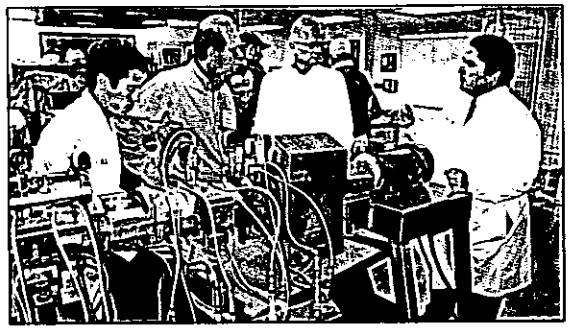
HB 1020

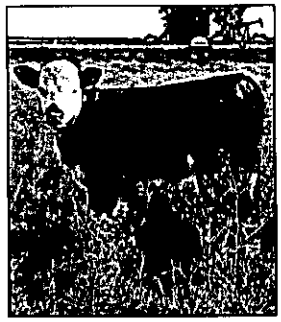
http://www.legis.nd.gov/assembly/62-2011/documents/11-8161-01000.pdf

NORTHERN CROPS INSTITUTE
Budget No. 638

Brian Sorenson, Director, Northern Crops Institute
Robert Majkrzak, Vice Chair, NCC
Dean L. Bresciani, Ph.D., President, NDSU
C. Coston, Ph.D., Vice President of Agriculture, NDSU

www.ndsu.edu/legislators

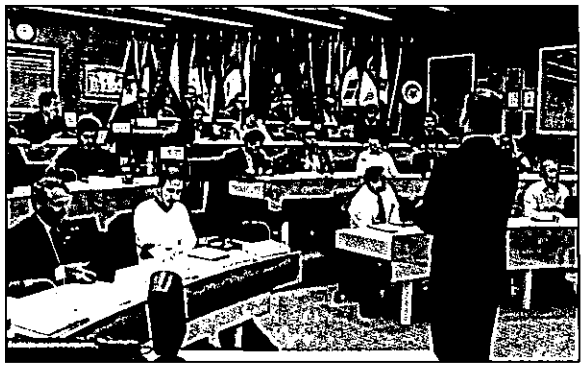




Northern Crops Institute

Northern Crops Institute (NCI) is an international meeting and learning center that brings together customers, commodity traders, technical experts, agricultural producers, and food and industrial processors for education, discussion and technical services. Northern Crops Institute is a cooperative effort between North Dakota, Minnesota, Montana and South Dakota to support the promotion, market development and expanded sales of crops grown in this four-state region.

Some of our major accomplishments are highlighted in these materials. NCI continues to focus on education and technical services as mandated in the Century Code. Our programs teach international buyers how to use the U.S. grain marketing system to make their purchases of northern grown U.S. crops and better manage their risks. Other educational programs teach buyers, both U.S. and international, about the quality and end-use characteristics of northern grown crops to encourage the purchase and use of our crops for their processing needs. We also add value to these crops through technical services in the form of processing, providing consulting and processing solutions to processors and users of regional commodities in the region, U.S. and around the globe.



NCI continues to receive regional funding. However, without the support of North Dakota, we would not be able to continue the level of work documented here. The executive recommendation for NCI's budget is very supportive of our work and our plans for the future.

The funding of the Feed Production Center Manager position will ensure that we will have the resources to support animal agriculture in North Dakota by providing expertise in feed processing.

I ask that you support the executive recommendation of the NCI budget, and thank you for your continued interest and support of the Northern Crops Institute.

Respectfully submitted,
Brian Sorenson
Director
Northern Crops Institute

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Northern Crops Institute

AGENCY STATUTORY AUTHORITY

North Dakota Century Code Chapter 4-14.2.

AGENCY DESCRIPTION

The Northern Crops Institute (NCI) is a cooperative effort between North Dakota, Minnesota, Montana and South Dakota to support the promotion and market development of crops grown in this four-state region. NCI brings together customers, commodity traders, technical experts, agricultural producers, and food and industrial processors for education, discussion and technical services. NCI provides technical and marketing assistance through specialized training courses and technical services that facilitate domestic and international market development and expanded sales of northern grown crops. Representatives from more than 128 countries have visited NCI since its inception. It is located on the campus of North Dakota State University.

AGENCY MISSION STATEMENT

Northern Crops Institute supports regional agriculture and value-added processing by conducting educational and technical programs that expand and maintain domestic and international markets for northern-grown crops.

AGENCY VISION STATEMENT

Northern Crops Institute will be the international meeting and learning center to promote the northern-grown crops of the United States.

AGENCY PERFORMANCE MEASURES

NCI provides status reports to the Northern Crops Council three times annually at Council meetings (per NDCC Section 4-14.2-02 and 4-14.2-03). On June 29, 2010, presentations and written documentation on accomplishments during Fiscal Year 2010 and plans for the next fiscal year were provided to the Council. Copies are on file at the NCI office and with Council members. NCI provided verbal and written status reports to the South Dakota Appropriations Committees in January 2010. NCI also gives regular status reports on NCI accomplishments to other agencies that provide Special (other) funds.

At the June 29, 2010 Northern Crops Council (NCC) meeting, a long-range strategy session was conducted, providing input on the direction of NCI programs and activities. Again the NCC reaffirmed NCI's direction and mission for the future. A new strategic plan is being developed in FY2011. NCI's direction for the future is to provide programs that educate the world about the broad spectrum of crops produced in our region.

AGENCY FUTURE CRITICAL ISSUES

Since our first international program was held in 1983, NCI has earned consistent success in promoting regional crops and is recognized as one of the best U.S. training facilities of its kind. It is the only regional organization of its type. In an increasingly competitive climate for world market share of agricultural commodities, NCI must keep current and meet the needs of international and U.S. crop buyers.

Animal agriculture has a direct impact on the economy of North Dakota and the region, with a significant amount of our crops being utilized in the manufacturing of feed products here and around the world. The NCI Feedmill Manager provides expertise in the use of animal feed products and trains international feed processors about the quality and value of our feed grains and co-products. Since the position was created in 1991, this position has been supported by regional commodity groups and appropriated funds from the states of Minnesota and South Dakota.

We continue to receive strong support from our regional feed grain commodity groups; however, the level and type of financial support has shifted, with more funding targeted for specific projects and less for salaries. This change in focus is making it increasingly difficult to fund the position. Therefore, NCI has an identified need for appropriated funding for this full-time position to ensure that NCI is able to provide expertise on the quality and utilization of our crops in animal feed products.

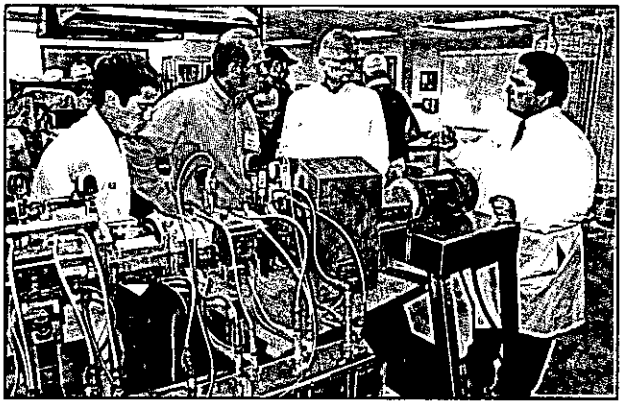
NCI programs, processing and analytical technologies must stay up-to-date to match technology of today and the future. High technology equipment is needed to maintain leading edge processing, testing capabilities, and delivery systems. With the increased number and diversity of the educational programs and crop utilization activities at NCI, additional funds are needed for operating expenses and equipment associated with our main facility located on the NDSU campus and the Feed Production Center (FPC) located north and west of campus. Funds are needed to purchase and maintain equipment in our laboratories, auditorium, offices and FPC, as well as for other items including printing and postage for short course brochures, newsletters and other promotional materials, as well as office supplies and services.

An important part of the effort to educate international buyers and processors is providing a professional and functional learning environment. The NCI's auditorium has served this mission well since it was constructed in 1983. For NCI to continue to be recognized as a world-class training center, updates to the auditorium are needed. One-time funding is needed for improvements including a new wireless translation system, new desks, new clocks (displaying time-zones for international participants), and a second video screen for enhanced multimedia training capabilities. NCI's Northern Crops Council passed a motion to renovate the auditorium as funds become available.

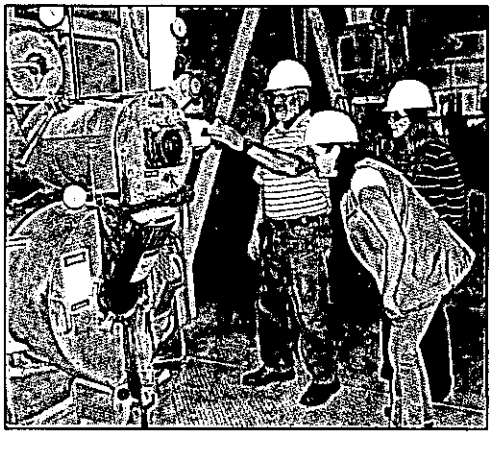
NCI Success Stories 2009-2010

NCI had three Baking with Soy short courses in 2009 and 2010. At the October 2010 course, participants from Nigeria visited Bill and Karolyn Zurn's farm during their soybean harvest.

NCI Technical Director Mehmet Tulbek demonstrates kneading bread dough during the 2010 Basics of Wheat and Flour Quality Short Course. Participants from Brazil, Japan, Taiwan and U.S. attended the course.



The Alternative Ingredients in Finfish Aquaculture Short Course attracted participants from Guatemala, Panama, Costa Rica, and USA. The course promoted the use of alternative ingredients, including DDGS and soy, in feed for warm-water and cold-water fin fish.



NCI offered three DDGS courses in 2009 that drew twenty-nine feed manufacturers from Japan, Jordan, USA, Canada, and Mexico to NCI to learn more about adding DDGS, a co-product of ethanol production, to feed.

Update on NCI Initiatives Funded in 2009-2011

Milling Specialist Position: **$160,000 Salary and Fringe Benefits, 1.0 FTE**

Funding for this position in the 2009-2011 Biennial Budget has addressed a critical need for a person with the proper education and training in the science and art of wheat flour milling. After a national search, the Milling Specialist position was filled in June 2010. The person chosen is a recent graduate of the Grain Science Program at Kansas State University, with a B.S. degree in Milling Science. The NCI Milling Specialist works with the entire NCI team to help educate domestic and international grain buyers about the quality and value of our wheat in our short course programs at the NCI, as well as provide on-site training and technical assistance here and overseas. The Milling Specialist is responsible for operating and maintaining the NCI Pilot Flour Mill, which was recently reconfigured to allow for the milling of durum, hard spring and hard winter wheats.

Operating Expenses: **$20,197 received**

The primary use of these funds has been to cover the energy costs of the Feed Production Center (NCI-FPC) which is located off campus near the animal research facilities on the NDSU Main Research Center. These funds will also be used to cover the additional operating expenses associated with our main facility located on the NDSU campus, including printing and postage for short course brochures, newsletters and other promotional materials, as well as laboratory and office supplies.

South Korean milling executives came to NCI in August 2010 to attend the Exploring Whole Wheat Foods Short Course. "Korean millers are not familiar with whole wheat flour milling, whole wheat quality characteristics or its products, thus this course was a great opportunity for them to learn about the overall quality characteristics and functionality of whole wheat flour," says Woojoon Park, Ph.D., U.S. Wheat Associates, Seoul.

2011-13 Needs-Based Budget

The initiatives below were identified by the Northern Crops Council and approved at the March 15, 2010 semi-annual meeting.

The following initiative is included in the Executive Recommendation:

Feed Production Center Manager: $199,362 salary and fringe benefits, 1.0 FTE

The importance of animal agriculture and its impact on the economy of North Dakota and the region are understood by many, and a significant amount of our crops are utilized in the manufacturing of feed products here in our region and around the world. The NCI Feed Production Center (NCI-FPC) was constructed in the early 1990's to expand the use of our crops and to train international grain buyers and processors about quality and value that our crops and co-products bring to their operations. Since the Feed Production Center Manager position was created, the salary has been paid with special funds, the majority of which have come from regional commodity groups. In the twenty-plus years since then, production agriculture has changed significantly, and although we receive strong support from our regional feed grain commodity groups, a number of them are able to support projects or equipment, but not salaries, making it increasingly difficult to continuously fund the position.

With this initiative, NCI is requesting funding for a full-time position of Feed Production Center Manager. This position provides expertise on the quality and utilization of our crops in animal feed products, and is responsible for developing new training programs, teaching in short course programs, advising NDSU animal science researchers, and conducting processing trials to increase the utilization of regional crops.

The following initiative was not included in the Executive Recommendation:

Operating Funds: $45,308

With the increased number and diversity of the educational programs and crop utilization activities at NCI, additional funds will allow NCI to cover the additional operating expenses associated with our main facility located on the NDSU campus and the Feed Production Center (FPC) located north and west of campus. This initiative will provide funding to purchase and maintain equipment in our laboratories, auditorium, offices and FPC. It will also help pay for operating expenses, including printing and postage for short course brochures, newsletters and other promotional materials, as well as office supplies and services.

2011-2013 Needs-Based Budget

Reconciliation of 2009-11 General Fund Appropriation to 2011-13 Executive Recommendation (HB 1020)

	NCI
General Fund	
2009-11 Original General Fund Appropriation	**$ 1,439,221**
Base Adjustments:	
N/A	-
2009-11 Adjusted Appropriation, Less Base Adjustments	**1,439,221**
Executive Recommendation Base Increases (Decreases):	
Cost to continue FY2011 salary increases	28,082
Retirement rate correction - Pay plan	(60,075)
Compensation package (3% per year) and health insurance increases	85,992
NCI initiatives	199,362
2011-13 Recommended Base General Fund Increases	**253,361**
2011-13 Total Executive Recommendation - General Fund	**1,692,582**
Increase (Decrease) From 2009-11 Adjusted Appropriation, Less Base Adjustments	**$ 253,361**
Special Funds	
2009-11 Original Other Fund Appropriation	**$ 1,598,265**
Base Adjustments:	
N/A	-
2009-11 Adjusted Appropriation, Less Base Adjustments	**1,598,265**
Executive Recommendation Base Increases (Decreases):	
Cost to continue FY2011 salary increases	11,499
Retirement rate correction - Pay plan	(5,458)
Compensation package (3% per year) and health insurance increases	14,052
Other changes in estimated income	36,367
Total requested increases (decreases)	**56,460**
2011-13 Total Executive Recommendation - Other Funds	**$ 1,654,725**

Impact

Crops produced on the Northern Great Plains of the U.S. are among the finest in the world. The mission of Northern Crops Institute (NCI) is to tell global crop buyers about our crops' quality characteristics through technical education and services. NCI is the prime source of technical education about the region's wheat, feed grains, soybeans, pulses and oilseeds, and their value-added products. Demand continues to increase for our programs and services. Such demand is also a reflection of the success of our activities to date and the credibility of the information provided through our programs.

Results from educational programs are long-term. One must look at what NCI does in the same way as one looks at other forms of education. We provide information on marketing and technical utilization of northern-grown commodities for both domestic and export markets. This service increases the possibilities of these buyers using northern-grown commodities in the future. Often purchases occur several years after educational efforts when conditions become optimal for the buyers.

Crops grown in the northern tier of the U.S. are valued by discriminating customers around the globe. Since 1983, NCI has hosted crop buyers, technical experts, commodity traders, processors and producers from 128 nations. They come to learn more about crop quality and availability. NCI does not buy or sell crops. We teach people how to use our crops and how to buy them through the U.S. grain marketing system.

In 2009 and 2010, NCI trained over 360 professionals from 41 countries in our educational programs, with 26 scheduled short courses and 5 customized courses for private groups and companies. Another important part of our educational program is our activity with trade teams who visit NCI. In the last two years, NCI hosted 241 international visitors from 23 countries as part of 33 trade missions. The total number of countries visiting NCI in 2009 and 2010 was 51. In addition, NCI specialists often participate in domestic and overseas programs that have reached over 1000 buyers and processors in the last two years alone. Our website (www.northern-crops.com) lists information and photos on our recent programs and trade teams, and the 2010 annual report is included at the end of this report.

State Impact

The market value of agricultural products sold in North Dakota is over $6 billion, with crops being over $5 billion, according to USDA's 2007 Census of Agriculture. Agricultural exports are extremely important to the North Dakota economy with $3.19 billion exported in 2009 (USDA ERS).

Regional Impact

Agriculture is the economic backbone in the states of North Dakota, Minnesota, Montana and South Dakota. NCI conducts programs that focus on building relationships and developing markets for our high quality crops and value added products. Agricultural related jobs continue to be an important share of employment in all four states. The combined value of the four-state exports of agricultural crops in 2009 was $10.7 billion, accounting for over 11% of the total U.S. exports. (http://www.ers.usda.gov/Data/stateexports/).

Major Accomplishments

Advancing Regional Markets

- Northern Crops Institute works to advance global market development for crops produced in North Dakota and the four-state region. We promote crop quality and availability through education, technical services and consulting throughout the world.

2009 and 2010 NCI Success Story

Seventy-three participants from 31 countries learned new strategies for grain procurement during short courses at NCI in 2009 and 2010. At the courses, groups tour area farms, the Port of Duluth, and the Minneapolis Grain Exchange. "This course helps our participants focus on the purchasing tools available to navigate through these difficult economic times. All the buyers are very focused on trying to figure out the best strategies for how to purchase grain for the near term and down the road," says NCI Director Brian Sorenson. "We also tour an export facility, which is really important to these buyers because they can actually see the facility from which their grain purchases are loaded and shipped," he concludes.

Participants examine a sample of wheat during a site visit to Hunter (N.D.) Grain Company.

Education

- Decision-makers who make purchases of grains/crops for their companies and countries are the people who attend the NCI Grain Procurement short courses. Knowledge of the U.S. grain purchasing system is absolutely necessary for these international buyers. The U.S. system is far more complicated than some of our competitors who have single-desk systems.

- International business depends on personal relationships. Offering courses at NCI remains the best means of connecting potential customers to our state and region. The hospitality in our region from NCI staff, course lecturers, regional farmers and hosts for field trips to hotel, restaurant and retail personnel, all create positive connections to our state and region. For many international buyers of crops, developing a relationship with the producers and visiting their farms is essential.

- When feasible, NCI teaches courses overseas. This is especially true when funds must be used in-country, not in the U.S., when travel costs are prohibitive, or when security issues make travel impossible. We will continue to pursue these opportunities.

51 Nations Learn More About Northern-Grown Crops

In 2009 and 2010, NCI staff taught short course participants, hosted trade teams and visitors, and consulted with companies from the following 51 countries.

Algeria	France	Jamaica	Mexico	Poland	South Korea	Ukraine
Belgium	Germany	Japan	Morocco	Portugal	Spain	United Arab Emirates
Brazil	Guatemala	Jordan	Netherlands	Romania	Taiwan	United Kingdom
Canada	Honduras	Kazakhstan	Nigeria	Russia	Thailand	United States
Chile	India	Kosovo	Pakistan	St. Vincent & Grenadines	Trinidad & Tobago	Vietnam
China	Indonesia	Lebanon	Panama	Singapore	Tunisia	
Colombia	Israel	Libya	Peru	South Africa	Turkey	
Costa Rica	Italy	Malaysia	Philippines			

Technical Services

- In 2009 and 2010, NCI's technical services have focused on increasing the use and value of amaranth, barley, black beans, Great Northern beans, navy beans, pinto beans, red beans, buckwheat, canola, chickpeas, corn, flaxseed, lentils, millet, oats, dry peas, sorghum, soybeans, sugarbeets, sunflowers, durum wheat, hard red spring wheat, hard red winter wheat, hard white wheat.

- NCI adds value to northern-grown crops by providing technical services to processors and users of regional commodities. Food companies, small to large, regional to multinational, use NCI's processing capabilities to develop new or modified food products and to evaluate ingredients and processing parameters. In 2009 and 2010, NCI conducted an ever increasing number of processing and baking investigations, and analytical testing projects for food and feed companies, universities and others.

- NCI's Feed Production Center offers educational programs and produces complete feeds, concentrates, supplements and custom premixes that are used in support of NDSU's animal teaching and research mission. In 2010, the NCI Feed Center produced 1,368 tons of feed, an average of 28 tons/work week," says Kim Koch, Ph.D., NCI Feed Center Manager. "In 2010, 970 tons of corn, 228 tons of soybean meal, 56 tons of DDGS, and 47 tons of soybean hulls were used in teaching and research diets," he says.

2010 NCI Success Story

NCI hosted the Japanese End Product Collaborative (EPC) in August, 2010. The project was organized to help us understand several things: how wheat is baked in Japan; how it is evaluated for quality; and what the important attributes of bread and flour quality are in Japan.

"Understanding all of this helps us provide more accurate programming and better feedback to our wheat breeders and producers about the needs of the international markets," says Brian Sorenson, NCI Director.

Japanese EPC team joins NCI Director Brian Sorenson and NCI Technical Director Mehmet Tulbek to evaluate several loaves of bread baked from different wheat varieties.

The Japanese EPC team represented the four leading flour mills in Japan: Nisshin, Nitto Fuji, Nippon, and Showa Sangyo. The team spent five days baking with NCI staff, exchanging information about protocols for specific end-products, identifying flour quality specifications, and learning more about U.S. wheat classes and blends of classes.

U.S. Wheat Associates funded the EPC program. Strong support also came from the state wheat commissions in North Dakota, Minnesota, Montana and South Dakota.

NCI's Renovated Flour Mill Begins Test Milling Trials in 2010

NCI's pilot durum mill was converted into a dual-purpose mill in 2009, and the new Milling Specialist began duties in June 2010. The first project conducted on the new mill was milling flour for the U.S. Wheat Associates' Overseas Varietal Analysis Project. The mill renovation was made possible by gifts from the North Dakota, Minnesota, Montana and South Dakota state wheat commissions, General Mills, Horizon Milling, ConAgra, and several individuals.

In the photo to the right, NCI Director Brian Sorenson hosts a tour of the renovated mill for a South Korean milling team, who were at NCI for a whole wheat foods short course.

NCI Technical Staff Prepares Crop Quality Surveys

Crop quality surveys are becoming an increasingly important part of the information conveyed to crop buyers at the NCI short courses and to international trade teams. In 2010, Northern Crops Institute prepared these crop quality surveys:

- National Pulse Quality Survey for Northern Pulse Growers Association
- Northern Canola Quality Survey for Northern Canola Growers Association
- North Dakota Commodity Soybean Quality Survey for the North Dakota Soybean Council
- North Dakota Identity-Preserved Soybean Quality Survey for the North Dakota Soybean Council
- Flaxseed Quality Survey for AmeriFlax, prepared in conjunction with Clifford Hall, Ph.D., NDSU

2009 and 2010 NCI Success Story

While the U.S. exports some of its dry pea crop to Asia, domestic markets for U.S. dry peas are becoming more significant. NCI technical staff collaborated in 2009 and 2010 on several projects involving dry peas to demonstrate quality and uses.

- Northern Pulse Growers Association (NPGA) teamed up with the NCI technical staff for another year to develop recipes using dry peas. In 2009, the project focused on pea flour-based recipes. This year's projects used pea protein concentrate in the recipe development trials.
- A Chinese team came to a workshop at NCI in August to learn more about U.S. dry peas. The workshop was co-sponsored by the USA Dry Pea and Lentil Council (USADPLC). China is a significant importer of U.S. dry peas, and the market is growing due to the interest of the starch noodle industry.
- NCI staff have been working on a project to demonstrate that pea protein concentrate can be used as an egg replacement. The project is funded as a USDA Cool Season Food Legumes Project through the Northern Pulse Growers Association.
- Thunyaporn Jeradechachai, NCI Crop Quality Specialist, is collaborating with Clifford Hall, Ph.D., NDSU Dept. of Cereal and Food Sciences, to research shelf life stability of pea flour. Understanding the shelf life is very important when we ship products longer distances, especially to developing countries in the food aid markets.

The Chinese Pea Quality Team make pea-enhanced baked products during the workshop in August 2010.

Partnerships and Leadership

- NCI provides leadership in North Dakota and the nation and in return receives collaborative assistance from many companies, organizations and individuals. Without these partnerships, NCI could not do its work. This year's cooperators are listed on page 15 of the 2010 Annual Update.

- NCI continues to offer courses in partnership with American Association of Cereal Chemists, American Feed Industry Association, American Society for Brewing Chemists, American Soybean Association, Ameriflax, Association of Oil Chemists Society, Association of Operative Millers, National Grain and Feed Association, NDSU Extension Service, U.S. Grains Council, U.S. Soybean Export Council, U.S. Wheat Associates, USA Dry Pea and Lentil Association, and the USDA/FAS Cochran Program, and others. These groups assist in identifying possible participants and often provide other resources.

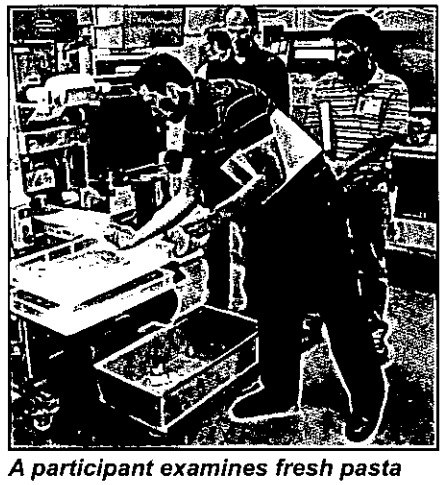
- The region's commodity check-off groups and their producer members continue to be major partners and supporters of Northern Crops Institute. NCI staff identify new market opportunities for regional producers and design courses to focus on those crops and products.

- The Northern Crops Council, NCI's governing board of directors, continues to provide regional four-state leadership for NCI's programs and strategic planning. NCI's Industry Advisory Board, drawn from the four-state agricultural supply and processing industries and the grain trade, provides advice, lecturers, tours, and resources for NCI programs and initiatives.

- NCI staff provides regular assistance to our partners. For example, in November, NCI Director Brian Sorenson traveled throughout Asia with U.S. Wheat Associates to report on the 2010 crop quality to our Asian buyers. NCI staff regularly travel throughout the world to provide educational seminars and technical consulting. NCI also provides lectures and demonstrations at NDSU, SDSU and other regional universities on technical, scientific, and practical applications of the use of crops in food processing applications.

2009 and 2010 Success Story

In 2009 and 2010, NCI offered five pasta short courses that attracted participants from nine countries. "Pasta is a very exciting segment of the food industry right now. There is a lot of interest not only in traditional pasta, but also in different types of pasta products such as fresh and frozen pasta, and in incorporating non-traditional ingredients such as flax, peas, lentils, whole wheat and other grains into pasta. NCI promotes all these crops by showing people how to create new and innovative products that appeal to consumers," says Brian Sorenson, NCI Director. "Our pasta courses continue to evolve to meet the needs of the industry. This year, we expanded our courses to include information on fresh, frozen, and canned pasta, and we incorporated the new laminated noodle and ravioli machine to allow us to focus on a wider spectrum of pasta products," he concludes.



A participant examines fresh pasta made on the laminated noodle machine.

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Sixty-second
Legislative Assembly
of North Dakota

HOUSE BILL NO. 1020

Introduced by

Appropriations Committee

(At the request of the Governor)

A BILL for an Act to provide an appropriation for defraying the expenses of the extension service, northern crops institute, upper great plains transportation institute, main research center, branch research centers, and agronomy seed farm; to provide for transfers; to provide an exemption; and to declare an emergency.

BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF NORTH DAKOTA:

SECTION 1. APPROPRIATION. The funds provided in this section, or so much of the funds as may be necessary, are appropriated out of any moneys in the general fund in the state treasury, not otherwise appropriated, and from special funds derived from federal funds and other income, to the North Dakota state university extension service, the northern crops institute, the upper great plains transportation institute, the main research center, branch research centers, and agronomy seed farm for the purpose of defraying the expenses of the North Dakota state university extension service, the northern crops institute, the upper great plains transportation institute, the main research center, branch research centers, and agronomy seed farm, for the biennium beginning July 1, 2011, and ending June 30, 2013, as follows:

Subdivision 1.

NORTH DAKOTA STATE UNIVERSITY EXTENSION SERVICE

	Base Level	Adjustments or Enhancements	Appropriation
Extension service	$47,091,489	$765,165	$47,856,654
Soil conservation committee	837,800	50,000	887,800
Total all funds	$47,929,289	$815,165	$48,744,454
Less estimated income	25,928,877	(2,800,067)	23,128,810
Total general fund	$22,000,412	$3,615,232	$25,615,644

Sixty-second Legislative Assembly

Full-time equivalent positions	255.75	0.00	255.75

Subdivision 2.

NORTHERN CROPS INSTITUTE

	Base Level	Adjustments or Enhancements	Appropriation
Total all funds	$3,037,486	$309,821	$3,347,307
Less estimated income	1,598,265	56,460	1,654,725
Total general fund	$1,439,221	$253,361	$1,692,582
Full-time equivalent positions	11.00	0.00	11.00

Subdivision 3.

UPPER GREAT PLAINS TRANSPORTATION INSTITUTE

	Base Level	Adjustments or Enhancements	Appropriation
Total all funds	$23,326,992	$742,969	$24,069,961
Less estimated income	21,737,199	413,134	22,150,333
Total general fund	$1,589,793	$329,835	$1,919,628
Full-time equivalent positions	52.30	0.00	52.30

Subdivision 4.

MAIN RESEARCH CENTER

	Base Level	Adjustments or Enhancements	Appropriation
Main research center	$87,530,418	$10,367,153	$97,897,571
Deferred maintenance	0	0	0
Grape and wine program committee	0	0	0
Federal fiscal stimulus 2009	0	0	0
Total all funds	$87,530,418	$10,367,153	$97,897,571
Less estimated income	45,013,267	(1,039,692)	43,973,575
Total general fund	$42,517,151	$11,406,845	$53,923,996
Full-time equivalent positions	329.26	0.00	329.26

Subdivision 5.

RESEARCH CENTERS

	Base Level	Adjustments or Enhancements	Appropriation
Dickinson research center	$5,012,580	$575,982	$5,588,562
Central grasslands research center	2,560,602	305,245	2,865,847
Hettinger research center	2,995,155	378,020	3,373,175
Langdon research center	2,091,572	287,235	2,378,807
North central research center	3,973,952	305,869	4,279,821
Williston research center	2,922,183	277,906	3,200,089
Carrington research center	6,727,962	398,526	7,126,488
Total all funds	$26,284,006	$2,528,783	$28,812,789
Less estimated income	13,916,816	960,765	14,877,581
Total general fund	$12,367,190	$1,568,018	$13,935,208
Full-time equivalent positions	95.49	0.00	95.49

Subdivision 6.

AGRONOMY SEED FARM

	Base Level	Adjustments or Enhancements	Appropriation
Agronomy seed farm	$1,275,238	$159,930	$1,435,168
Total special funds	$1,275,238	$159,930	$1,435,168
Full-time equivalent positions	3.00	0.00	3.00

Subdivision 7.

BILL TOTAL

	Base Level	Adjustments or Enhancements	Appropriation
Grand total general fund	$79,913,767	$17,173,291	$97,087,058
Grand total special funds	109,469,662	(2,249,470)	107,220,192
Grand total all funds	$189,383,429	$14,923,821	$204,307,250

SECTION 2. ONE-TIME FUNDING - EFFECT ON BASE BUDGET - REPORT TO SIXTY-THIRD LEGISLATIVE ASSEMBLY. The following amounts reflect the one-time funding items approved by the sixty-first legislative assembly for the 2009-11 biennium and the 2011-13 one-time funding items included in the appropriation in section 1 of this Act:

Sixty-second
Legislative Assembly

One-Time Funding Description	2009-11	2011-13
Main research center greenhouse project	$11,450,400	$9,494,581
Deferred maintenance pool	450,000	0
Operating pool	925,000	0
Dickinson parking lot and landscaping capital project	350,000	0
Upper great plains transportation institute center for transportation study capital project	3,000,000	0
Beef research facility	2,612,400	0
Grape and wine program committee	250,000	0
Federal fiscal stimulus 2009	700,000	0
North central, Williston, Langdon, and Dickinson renovations/additions	2,937,200	0
Total all funds	$22,675,000	$9,494,581
Total other funds	4,975,000	2,502,931
Total general fund	$17,700,000	$6,991,650

The 2011-13 one-time funding amounts are not a part of the entity's base budget for the 2013-15 biennium. The main research center shall report to the appropriations committees of the sixty-third legislative assembly on the use of this one-time funding for the biennium beginning July 1, 2011, and ending June 30, 2013.

SECTION 3. ADDITIONAL INCOME - APPROPRIATION. In addition to the amount included in the grand total special funds appropriation line item in section 1 of this Act, any other income, including funds from federal acts, private grants, gifts, and donations, or from other sources received by the North Dakota state university extension service, the northern crops institute, the upper great plains transportation institute, the main research center, branch research centers, and agronomy seed farm, except as otherwise provided by law, is appropriated for the purpose designated in the act, grant, gift, or donation, for the biennium beginning July 1, 2011, and ending June 30, 2013.

SECTION 4. TRANSFER AUTHORITY. Upon approval of the state board of agricultural research and education and appropriate branch research center directors, the director of the main research center may transfer appropriation authority within subdivisions 1, 2, 4, and 5 of

section 1 of this Act. Any amounts transferred must be reported to the director of the office of management and budget.

SECTION 5. FULL-TIME EQUIVALENT POSITION ADJUSTMENTS. The board of higher education may adjust or increase full-time equivalent positions as needed for the entities in section 1 of this Act, subject to availability of funds. The board shall report any adjustments to the office of management and budget prior to the submission of the 2013-15 budget request.

SECTION 6. UNEXPENDED GENERAL FUND - EXCESS INCOME. Any unexpended general fund appropriation authority to and any excess income received by entities listed in section 1 of this Act are not subject to the provisions of section 54-44.1-11, and any unexpended funds from these appropriations or revenues are available and may be expended by those entities, during the biennium beginning July 1, 2013, and ending June 30, 2015.

SECTION 7. EXEMPTION. The amounts appropriated for the research greenhouse complex project, as contained in subdivision 4, section 3, of chapter 48 of the 2005 Session Laws, and the branch center renovations and research greenhouse complex projects, as contained in subdivision 4, section 1, of chapter 48 of the 2009 Session Laws, are not subject to the provisions of section 54-44.1-11, and any unexpended funds from these appropriations or related revenues are available and may be expended during the biennium beginning July 1, 2011, and ending June 30, 2013.

SECTION 8. EMERGENCY. The appropriation for capital projects of $6,991,650 from the general fund and $2,502,931 from special funds in subdivision 4 of section 1 of this Act is declared to be an emergency measure.

Northern Crops Institute

Connecting in the Global Marketplace

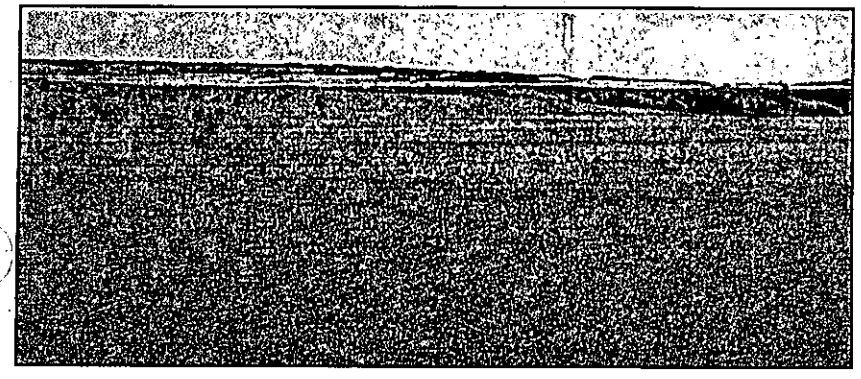
www.northern-crops.com
701-231-7736

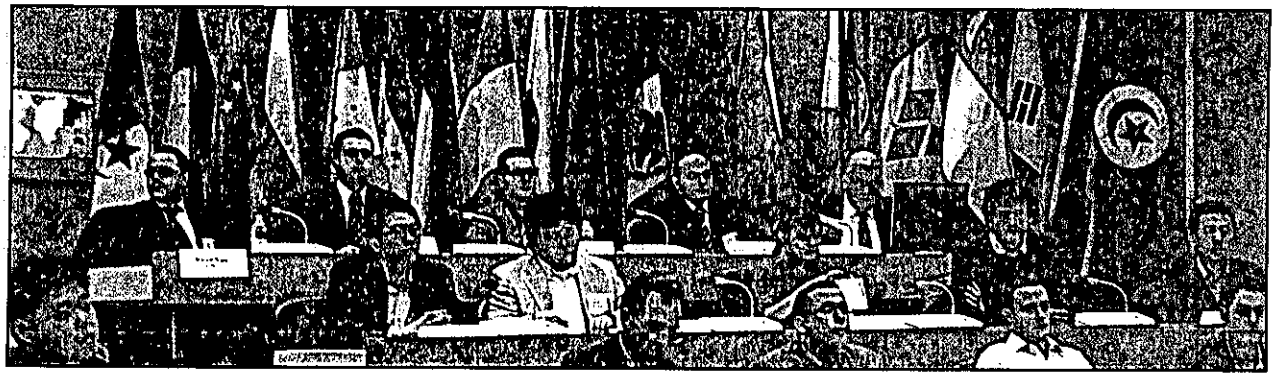
Northern Crops Institute

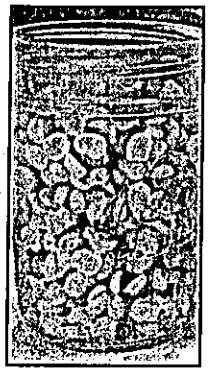
Annual Update

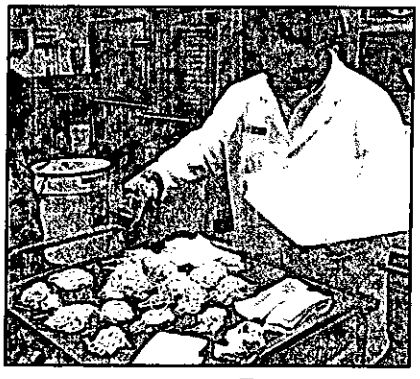
2010

Northern Crops Institute supports regional agriculture and value-added processing by conducting educational and technical programs that expand and maintain domestic and international markets for northern-grown crops.









Connecting in the Global Marketplace

NCI NORTHERN CROPS INSTITUTE

Director's Corner

Brian Sorenson
Director, Northern Crops Institute

What's next? That is a very good question as we look back at 2010 and build our programs and capabilities in 2011. The key accomplishments this past year were the start-up of the renovated NCI Flour Mill, the hiring of Rachel Brudvik as Food Technologist and Alyssa Hicks as Milling Specialist, and a very successful short course and trade team season, with programs impacting nearly all of our region's major crops.

Sorenson

One of our new educational programs for 2010 was the Alternative Ingredients for Finfish Aquaculture short course held in October (see page 11). "Fish at the NCI? That is a new one," was the email a friend sent me this summer when he heard about the course.

As with all programs at NCI, we aggressively planned the course, bringing in expert researchers from the U.S. Department of Agriculture (USDA) and academia to provide current information to the participants – four of whom traveled from Central America. The program focused on the use of dried distillers grains and soy-based ingredients in diets for fish and shrimp. The feedback was very good and it was a lead story on the World Grain website.

We are excited to offer it again in May. Our 2011 short course schedule (see page 14) outlines our plans for the next year, while we continue to receive inquiries for additional programs for both domestic and international participants.

For 2011, we are planning a number of projects to improve our programs and technical services. The first is an update of our auditorium with new desk-tables, podiums, wireless translation system and more, to continue to provide a comfortable and professional learning environment for our visitors. The second is the reconfiguration of our Grain Grading Laboratory to make it a more functional training facility, as well as to provide more lab bench space for new equipment to teach our visitors about the quality, utilization and value of our region's grains, oilseeds and pulse crops. We see these changes as essential investments in our ability to carry out our mission for the benefit of the producers and citizens of the four states we represent.

In conclusion, I thank all of you who have helped make our programs and activities successful this past year. The list on page 15 is long, and even though we try to include everyone, it is an impossible task as so many people and groups around the world give of their time, energy and funding to support our efforts. I wish you all a great 2011.

A Note from the NCC Chair

David Clough, Fessenden, N.D.
North Dakota Wheat Commission

It has been another great year for the NCI, with a lot of good courses and good participants in them. The flour mill is proving to be a very good addition, along with NCI's Milling Specialist, Alyssa Hicks. She has been very busy since the flour mill started operating.

Clough

I attended part of the Japanese End Products Collaborative Evaluation Program that was held at NCI, sponsored by U.S. Wheat Associates. Much was learned by both the NCI staff on the Japanese flour quality needs, and by the Japanese team members on the different quality of test flours made from specific U.S. wheat varieties and commercial flours. They also went to some supermarkets to see our commercial U.S. bread products.

It was interesting to see how they made, shaped, and baked some of the unique bread styles of Japan, using baking equipment and flours they brought from Japan to the NCI. I especially enjoyed helping make some of the bread and tasting some of the different breads.

Attending another Grain Procurement Short Course Recognition Dinner was rewarding. With all the young people involved, the future for grain buying and the milling industry looks bright. With 34 participants from 20 countries, it is amazing to see what good friends they all had become after only a few days.

It was good to see and visit with some Italian millers that were here in April. At that time, I told them about the Grain Procurement Course, and several came back to the NCI for the course.

This fall when I was visiting with a Philippine Wheat Trade Team, one of the members told me how impressed he was with the NCI and the way it looks into the future.

With the Northern Crops Council, the Industrial Advisory Board and the great NCI staff, NCI will continue to promote our region's agriculture for our producers into the future.

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Northern Crops Council Elects Officers at June Meeting

David Clough, a producer from Fessenden, N.D., was re-elected chair of the Northern Crops Council (NCC) at their reorganizational meeting on June 29, 2010. The NCC is the governing board of the Northern Crops Institute.

Clough represents the North Dakota Wheat Commission. He was elected to his first term as NCC chair in November 2009. Clough began his first three-year term on the NCC in 2007.

Robert Majkrzak, Red River Commodities Inc., was re-elected NCC vice chair. Majkrzak fills a food processor seat on the Council. His first term on the NCC also began in 2007.

Six seats on the NCC are permanently occupied by the NDSU President, N.D. Commissioner of Agriculture, and representatives of the N.D. Wheat Commission, N.D. Oilseed Council, N.D. Barley Council, and N.D. Soybean Council.

The additional eleven seats are filled by producers and food processors from Minnesota, Montana, North Dakota and South Dakota, who gain seats on the Council through election by the permanent members.

2010-2011 Northern Crops Council

David Clough, Chair
Fessenden, ND
ND Wheat Commission

Robert Majkrzak, Vice Chair, Fargo, ND
Red River Commodities

Dean Bresciani, Ph.D.
President
rth Dakota State Univ.

an Brooks
Bowman, ND
Northern Pulse Growers

Mike Clemens
Wimbledon, ND
N. D. Oilseed Council

D.C. Coston, Ph.D.
Vice Pres. for Agriculture
President's Designee
North Dakota State Univ.

Doug Goehring
Comm. of Agriculture
N.D. Dept. of Agriculture

Ernie Hoffert
Carrington, ND
AmeriFlax

Mark Jossund
Moorhead, MN
MN Wheat Research and Promotion Council

Laird Larson, Past Chair
Clark, SD
S.D. Wheat Commission

Doyle Lentz
Rolla, ND
N.D. Barley Council

Claude Richard
Fargo, ND
N.D. Soybean Council

Robert Sinner
Casselton, ND
SB&B Foods Inc.

Buzz Mattelin
Culbertson, MT
MT Wheat & Barley Committee

Kevin Skunes
Arthur, ND
N.D. Corn Council

René Steiner
Plymouth, MN
Buhler Inc.

Vance Taylor
Grand Forks, ND
North Dakota Mill

Karolyn Zurn
Callaway, MN
MN Soybean Growers

Northern Crops Institute Hosts 37 Countries in 2010

- Algeria
- Belgium
- Brazil
- Canada
- China
- Colombia
- Costa Rica
- Guatemala
- Honduras
- India
- Indonesia
- Israel
- Italy
- Japan
- Kazakhstan
- Kosovo
- Lebanon
- Libya
- Mexico
- Morocco
- Netherlands
- Nigeria
- Panama
- Philippines
- Portugal
- Russia
- St. Vincent & Grenadines
- Singapore
- South Africa
- South Korea
- Taiwan
- Trinidad & Tobago
- Tunisia
- Turkey
- Ukraine
- United States
- Vietnam

2010-2011 Industry Advisory Board

- **John McLean, Chair**
  Cargill
- **Mark Askegaard**
  Askegaard Organic Farm
- **Eric Bartsch**
  United Pulse Trading
- **David Berg**
  American Crystal Sugar
- **Mark Berwick**
  Upper Great Plains Transportation Institute
- **Darwin Britzman**
  t'l Nutrition Consulting
- **odney Christianson**
  SD Soybean Processors, Inc.
- **Ron DeJongh**
  Columbia Grain
- **Joel Dick**
  Dakota Specialty Milling
- **Mark Dillon**
  Golden Growers Coop.
- **Timothy Dodd**
  Dakota Growers Pasta
- **Carrol Duerr**
  Colfax Elevator
- **Tim Egeland**
  Dahlgren & Company Inc.
- **Gordon Gingras**
  Evonik
- **Mike Gray**
  Kellogg's
- **Brad Hennrich**
  Hesco, Inc.
- **Roger Hipwell**
  MGI Grain Processing LLC
- **Greg Johnson**
  Premier Pulses International
- **Brad Kjar**
  Tharaldson Ethanol
- **Gerald Leukam**
  T.E. Ibberson Co.
- **Jon Long**
  BNSF Railway Inc.
- **Robert Majkrzak**
  Red River Commodities
- **Dave Polries**
  Dakota Dry Bean
- **Jay Romsa**
  General Mills
- **Robert Sinner**
  SB&B Foods
- **Travis Sitter**
  Commodity Services, Inc.
- **René Steiner**
  Buhler Inc.
- **Alan Slater**
  Busch Agricultural Resources
- **Tom Streifel**
  Highwater Ethanol
- **Mark Stutrud**
  Summit Brewing Company
- **Vance Taylor**
  North Dakota Mill
- **Jennifer Tesch**
  SK Food International
- **Ken Ulbrich**
  Bay State Milling

Twenty Nations at NCI's Grain Procurement Management Course

Belgium, China, Colombia, Guatemala, Honduras, Indonesia, Italy, Japan, Libya, Mexico, Morocco, Netherlands, Philippines, Portugal, St. Vincent and the Grenadines, Singapore, South Korea, Trinidad and Tobago, Tunisia, and USA • September 20-29, 2010

Thirty-four grain buyers from 20 nations attended the 2010 Grain Procurement Management for Importers short course at NCI, to learn how to make more effective purchases in the U.S. grain marketing system.

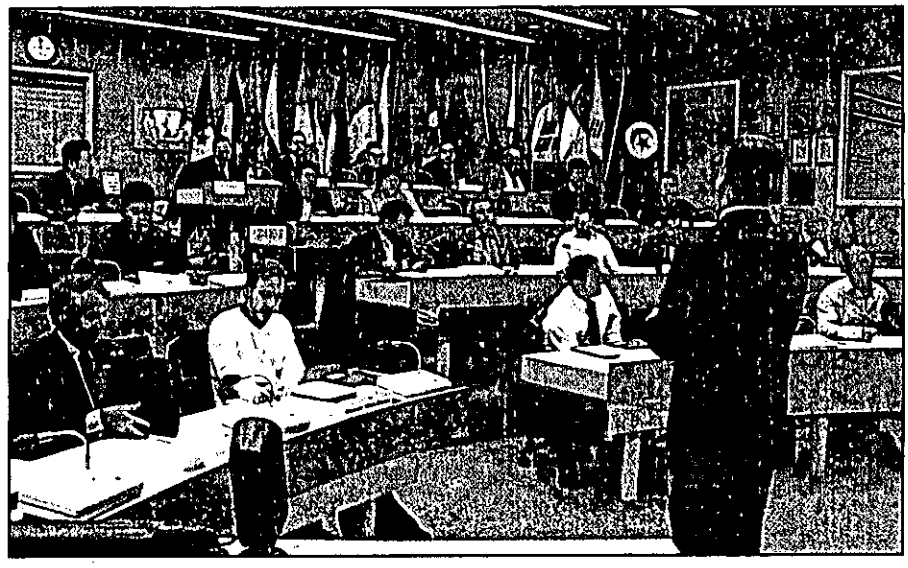
The grain buyers represented large and small flour mills, food manufacturers, and trading companies that import and trade hard red spring wheat (HRS), durum wheat, corn, soybeans, barley and other commodities. Two representatives of the European Commission, EU's executive body, also attended.

Crabtree

John Crabtree, NCI Assistant Director, coordinated the course. U.S. Wheat Associates sponsored many of the participants.

"This is a really exciting time in the grain industry," said NCI Director Brian Sorenson during the course. "Buyers are dealing with a high level of volatility in the markets. We have had a number of weather issues in the U.S. Now we are looking at the situation in Canada with late harvest and frost problems, issues with the Russian government cutting off exports, and Ukraine hindering exports. We have other discussions in parts of Europe related to quality, and Australia is talking about drought again. It's a very interesting time for buyers."

"This course helps our participants focus on the tools available to navigate through these choppy waters. We are excited to meet with the participants every year. Every class is great and each one is different. This year's group is very focused on trying to figure out the best strategies for how to buy grain for the near term and down the road," Sorenson concluded.

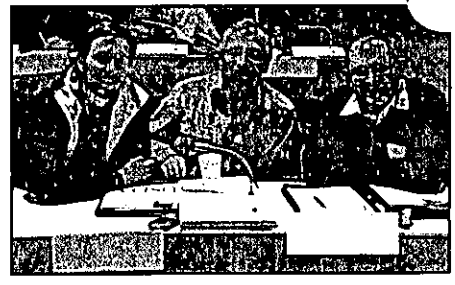


NCI Director Brian Sorenson greets the short course participants on the first day of cla

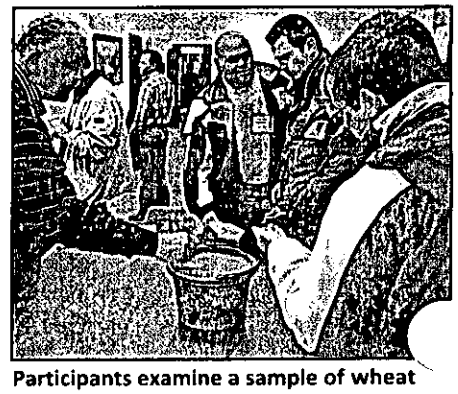
Wilson

William Wilson, Ph.D., NDSU Distinguished Professor of Agribusiness and Applied Economics, was the lead lecturer for the course. Featured speakers at NCI included Art Boline, GIPSA/USDA; David Bullock, Ph.D., FC Stone; Bradley Clow, Union Pacific Railroad; Erica Olson, N.D. Wheat Commission; Frayne Olson, Ph.D., NDSU Extension Service; Darcy Rasmussen, N.D. Grain Inspection Service; and Steve Wirsching, U.S. Wheat Associates.

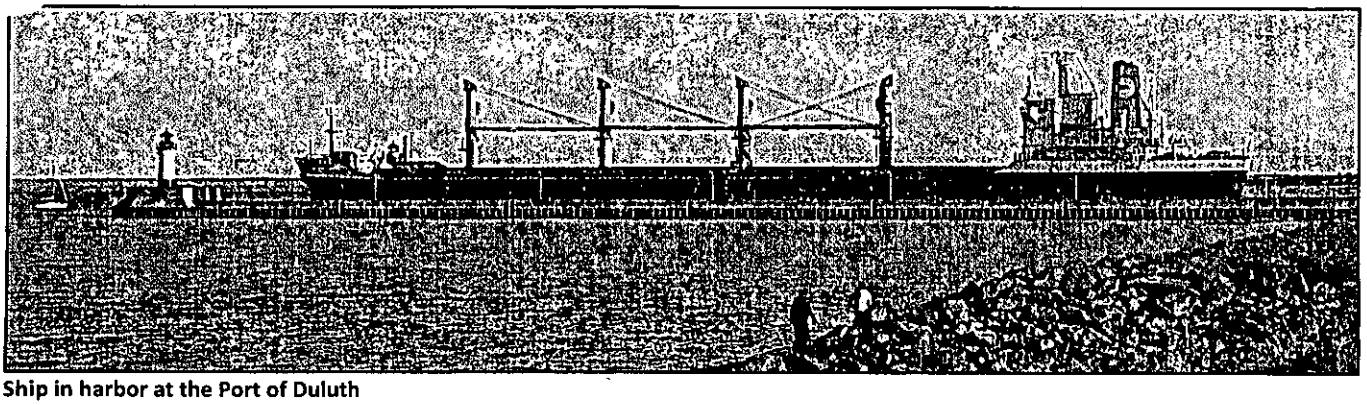
Several site visits occurred during the course. General Manager Paul Skarnagel hosted a tour of Hunter (N.D.) Grain Company. Bob Sinner hosted the group during a tour of his company, SB&B Foods, Casselton, N.D. At the end of the week, course participants traveled to Duluth, Minn., where they toured the Duluth Seaway Port Authority with Executive Director



Three staffers from U.S. Wheat Associates attended the Grain Procurement short course. They are (left to right): Marcelo Mitre-Dieste, Technical Specialist–Mexico; Goris van Lit, Regional Director–Europe; and Peter Lloyd, Regional Technical Director–North Africa.



Participants examine a sample of wheat during a site visit to Hunter (N.D.) Grain Company.



Ship in harbor at the Port of Duluth

Adolph Ojard, and the CHS Export Grain Terminal with Superintendent Dick Carlson.

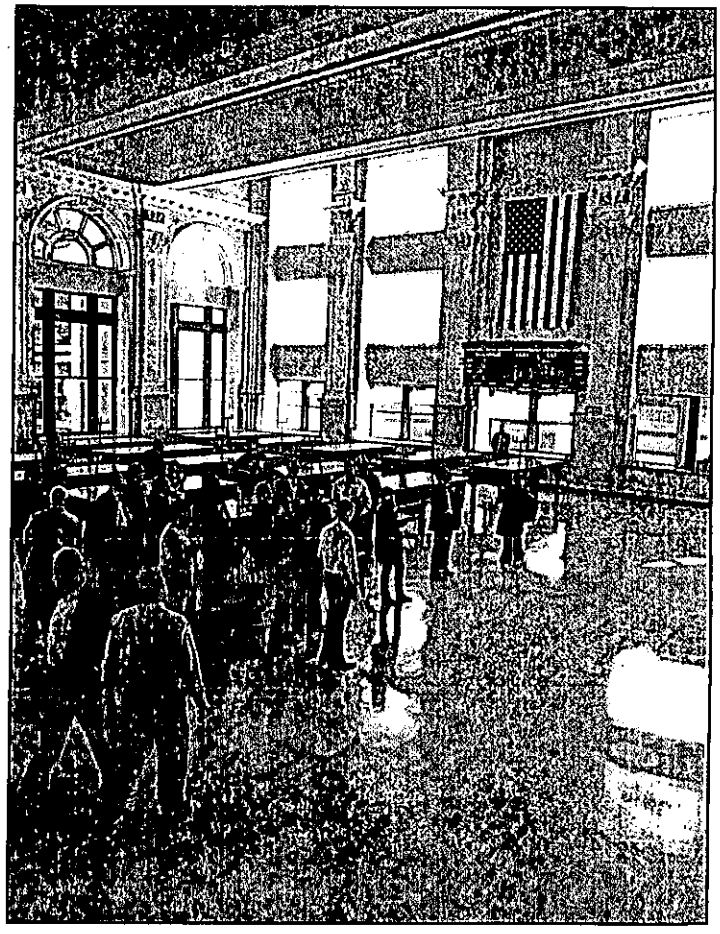
At the Minneapolis Grain Exchange (MGEX) during the course's second week, short course participants met with grain traders, who discussed commercial grain export trading practices with participants. Rita Maloney and Joe Albrecht of MGEX outlined the history of the MGEX.

Featured speakers at the Minneapolis Grain Exchange included Roger Baker, CHS; Tanya Hart Coakley, Trading Technologies International; Austin Damiani, Frontier Futures; Ron DeJongh, Columbia Grain; Maurice Hurst, Cargill, Inc.; Mike Klein, CHS; Brian McLaughlin, Trading Technologies International; Kerry Melius, ADM-Benson Quinn; and Todd Pester, Ph.D., Monsanto.

"The grain industry is definitely changing," says Sorenson. "We are seeing a shift to electronic tools for purchasing grain. One example of this is how the Minneapolis Grain Exchange has gone completely over to electronic trading. There is no more open out-cry. We still spend a day and a half at the MGEX to see how the grain exchange operates, and we meet with a number of key players in the grain trade. While we are in the Twin Cities area, we usually take the opportunity to see a barge facility at Savage, Minn., which is something that few of our participants have seen. This year it was flooded out, so we couldn't go."

"Visiting the Duluth port is an important part of this course. The group meets with Port Authority personnel to learn more about the grain shipments going out of the ports in Duluth and Superior, Wis. We also tour an export facility, which is really important to these buyers because they can actually see the facility from which their grain purchases are loaded and shipped," concludes Sorenson.

Participants of the 2010 Grain Procurement Management for Importers short course on the first day of class.



Grain Procurement short course participants enter the MGEX trading floor in the cash markets area.

Pasta Manufacturing Short Courses Begin 26th Year

Guatemala, Japan, Philippines, and United States • April 13-15 and July 12-16, 2010

"We have offered the Pasta Production and Technology Short Course every year since 1984, and of the 20 participants in this year's course, most of them come from companies that have been represented at the course in the past," says NCI Director Brian Sorenson.

This year, NCI hosted two pasta short courses. The Pasta Production and Technology Short Course ran from April 13-15. The Pasta: Raw Materials and Processing Technology Short Course was offered from July 12-16.

"Food companies see this course as a good opportunity to increase their personnel's understanding of durum and pasta quality. It is very important that we help food processors understand the quality of the durum wheat that we produce in our region, as well as how to utilize it successfully within their companies, because that in turn results in success for our producers," Sorenson concludes.

In addition to lectures, course participants gain hands-on experience in the pilot-scale pasta lab where they directly apply what they are learning to the pasta extrusion process. The class also toured Philadelphia Macaroni Company and North Dakota State Mill, Grand Forks, N.D.

John Crabtree, NCI Assistant Director, coordinates the short courses.

Course faculty and technicians were: Rachel Brudvik, NCI Food Technologist; Gabriele Cannata, De Mari Pasta Dies USA; Michael Ehr, Buhler, Inc.; Elias Elias, NDSU Durum Breeder; Alexis Freier, Dakota Growers Pasta Company; Bruno Giberti, Axor America, Inc.; Radwan Ibrahim, Ph.D., Dakota Growers Pasta Company; Thunyaporn Jeradechachai, NCI Crop Quality Specialist; Dan Maldari, D. Maldari & Sons; Frank Manthey, Ph.D., NDSU Professor of Plant Sciences; Rilie Morgan, NCI Processing Specialist; Brian Sorenson, NCI Director; Stan Stancyk, NDSU Department of Plant Sciences; and Mehmet Tulbek, Ph.D., NCI Technical Director.

A participant examines fresh pasta made on the laminated noodle machine.

Customized Short Course Highlights Legumes in Food Products

Canada and India • June 8-9, 2010

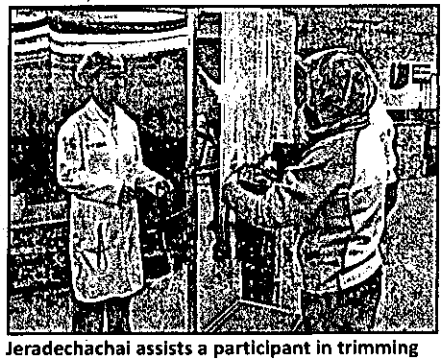
A customized course on Legumes in Food Products was conducted at NCI for participants from Canada and India.

Lecturers discussed the use of lentils, chickpeas, and peas in food products, food product development applications of baked and extruded products, nutritional aspects, labeling, process technologies and sensory evaluation. The team spent considerable hands-on time in NCI's baking and processing laboratories.

Faculty for the course were Mehmet Tulbek, Ph.D., NCI Technical Director; Thunyaporn Jeradechachai, NCI Crop Quality Specialist; Kevin McPhee, Ph.D., NDSU Pulse Breeder; and Clifford Hall, Ph.D., NDSU Cereal and Food Sciences.

In NCI's Baking Lab, Jeradechachai (right) explains the quality properties of legumes.

Pasta Production and Technology Short Course April 13-15, 2010



Jeradechachai assists a participant in trimming long goods pasta made during the pasta course.

Pasta: Raw Materials and Processing Technology Short Course July 12-16, 2010

Functionality of Oilseeds is Focus of Flax and Canola Short Course

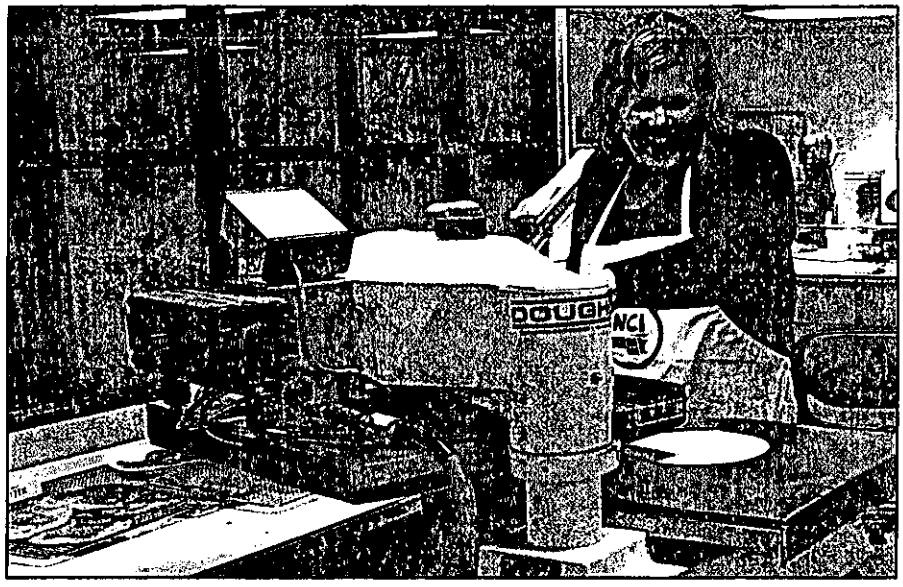
USA • April 27-29, 2010

Flax and canola are gaining recognition with consumers, due to their nutritional and health benefits. These oilseeds were featured at the "Functionality of Canola and Flaxseed in Food Systems" Short Course at NCI April 27-29.

"Flaxseed and canola are both specialty oilseeds that are principally produced in North Dakota," says Mehmet Tulbek, Ph.D., NCI Technical Director. "North Dakota raises about 93% of the total U.S. flax and canola crops. Therefore, it is important for our producers that we offer this course to promote the crops. The course focused on bakery formulas where we use milled flax and canola together."

The short course was co-sponsored by AmeriFlax, the trade organization that represents North Dakota flax producers, and the Northern Canola Growers Association, which promotes the use of canola. The U.S. uses most of its domestically grown flax and canola.

"AmeriFlax realizes the importance of getting the health and product utilization message for flax out to consumers, and it all starts with food research," says Sheri Coleman, Executive Director of AmeriFlax. "With today's emphasis on health, omega-3's, and fiber, it is important that information such as what is being done at NCI reaches those individuals. This short course is a valuable tool to show upcoming trends and innovative ways of using flax in food products."

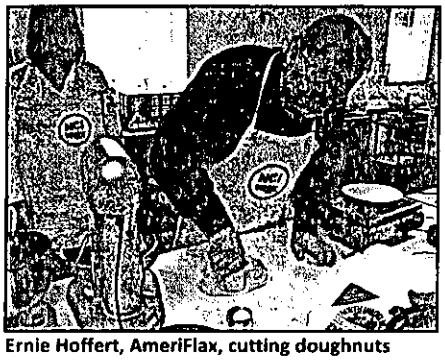


A participant presses and bakes a tortilla that is enhanced with canola and flax. She was quite delighted at how easily a tortilla can be pressed in less than 3 seconds.

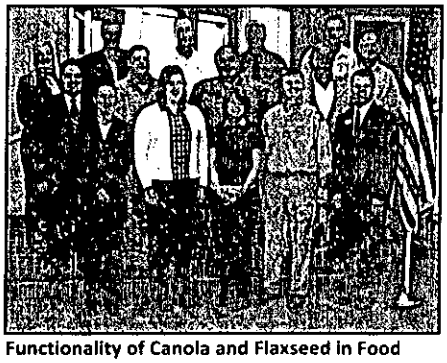
"Consumers today care about what they eat," says Barry Coleman, Executive Director, Northern Canola Growers Association. "Canola is the healthiest oil in today's market, bringing not only a healthy fatty acid profile but also its versatility. Course attendees learned first-hand about the ease, health and versatility of canola oil. The course demonstrated a hands-on approach in looking at future products for consumers as well as improving the health of current food products," he concludes.

Course speakers and technicians included: Rachel Brudvik, NCI Food Technologist; Sheri Coleman, AmeriFlax; Barry Coleman, Northern Canola Growers Association; Clifford Hall, Ph.D., NDSU Dept. of Cereal and Food Sciences; Thunyaporn Jeradechachai, NCI Crop Quality Specialist; Hans Kandel, Ph.D., NDSU Dept. of Plant Sciences; Frank Manthey, Ph.D., NDSU Dept. of Plant Sciences; Rilie Morgan, NCI Processing Specialist; Susan Raatz, Ph.D., Research Nutritionist, USDA-ARS Human Research Center; Brian Sorenson, NCI Director; and Mehmet Tulbek, Ph.D., NCI Technical Director.

Legumes in Food Products Short Course June 8-10, 2010



Ernie Hoffert, AmeriFlax, cutting doughnuts during Canola and Flax Short Course



Functionality of Canola and Flaxseed in Food Systems Short Course, April 27-29, 2010

Basics of Wheat and Flour Short Course Centers on Understanding Quality

Brazil, Japan, Taiwan, and USA • June 15-17, 2010

Fourteen participants from Brazil, Japan, Taiwan, and U.S. learned more about how wheat type and quality affects the milling and baking processes as they attended the Basics of Wheat and Flour Quality Short Course.

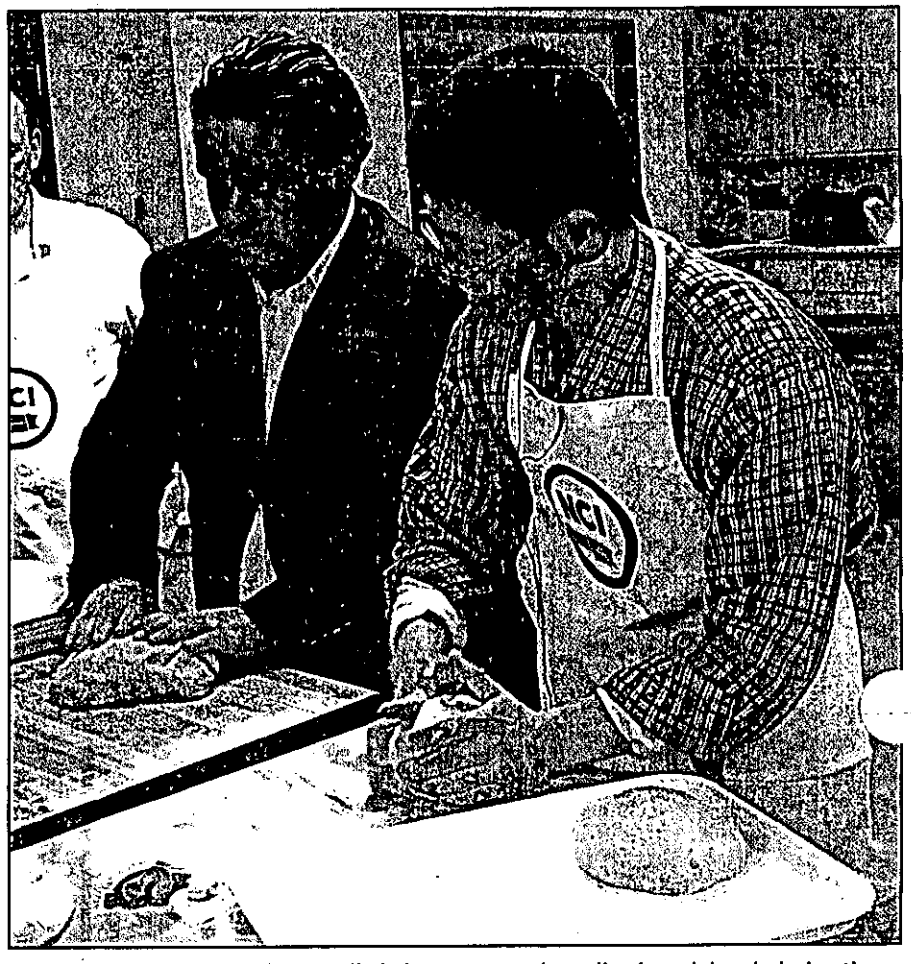
"During this class, we showcase the quality of our crops, especially the Hard Red Spring and Durum wheat that we produce in this region. This helps them understand more about how our wheat is analyzed for flour and baking qualities," says Brian Sorenson, NCI Director.

"This course attracted participants from the U.S. and overseas," says Sorenson. "A five-member delegation from Taiwan attended the course, sponsored by U.S. Wheat Associates. Mr. Ron Lu, Country Director for U.S. Wheat Associates Taiwan, escorted them."

John Crabtree, NCI Assistant Director, coordinated the course. Speakers included Aytun Erdentug, Branscan Ltd.; Robert Meyer, Dakota Specialty Milling; Jason Romberg, Lab Synergy; and the NCI technical staff.

The group participated in lectures, hands-on baking, laboratory and milling demonstrations. Speakers demonstrated Flourscan technology, dumatherm protein analysis, C-Cell Technology and TA-XT Plus, in addition to traditional testing technology.

Topics included factors that define wheat and flour quality, U.S. wheat classes, quality tests and procedures, impact of milling on flour quality, role of protein and starch in flour-based products, dough rheology, baking performance using whole wheat flour, semolina requirements for pasta products, functional ingredients in flour and flour-based products, baking technology, mixing, fermentation, baking processes, and bread quality evaluation.



NCI Technical Director Mehmet Tulbek demonstrates kneading bread dough during the Basics of Wheat and Flour Quality Short Course. All the participants spent many hours in the NCI Baking Laboratory learning more about flour and dough quality.

John Crabtree welcomes the participants of the Basics of Wheat and Flour Quality Short Course.

Basics of Wheat and Flour Quality Short Course June 15-17, 2010

NCI Director Brian Sorenson (center) and Ron Lu, (right), U.S. Wheat Associates, tour NCI's flour mill.

Korean Millers Explore Whole Wheat Foods at NCI Short Course

Korea • August 9-13, 2010

"As Korean consumers become more familiar with the nutritional benefits of whole wheat products, we are encouraging the Korean milling industry to produce whole wheat flour for making a variety of wheat-based end products," says Woojoon Park, Ph.D., Senior Technical Marketing Specialist, U.S. Wheat Associates, Seoul.

Park brought four Korean milling executives to NCI to attend the Exploring Whole Wheat Foods Short Course in August to foster their interest in using whole wheat in Korean baked and processed foods.

"Korean millers are not familiar with whole wheat flour milling, whole wheat quality characteristics or its products, thus this course was a great opportunity for them to learn about overall quality characteristics and functionality of whole wheat flour," says Park.

"During the course, the team had productive lectures and hands-on experiences that will help them understand whole-wheat products and their quality characteristics," Park continues.

"Participants gained a lot of useful, up-to-date information regarding whole wheat products, quality attributes, and the whole wheat milling process, and also had an opportunity to see NCI's pilot flour mill, baking laboratory, and small scale pasta maker," he concludes.

The team tested the baking and cooking performance of many whole-wheat products including breads, buns, artisan breads, cookies, cakes, pita, tortilla, pasta, and noodles. After each baking session, the team conducted product evaluation involving crust color, crumb color, sensory evaluation, and loaf volume. They also evaluated bread with C-Cell analysis, a system that quantifies cell characteristics and external features using dedicated image analysis software.

Mehmet Tulbek, Ph.D., NCI Technical Director, coordinated the course.

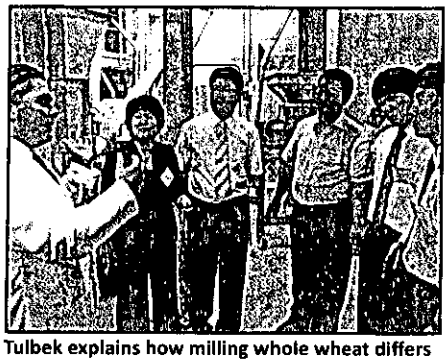
Speakers included Robert Meyer, Director of Technical Services at Dakota Specialty Milling, Fargo, N.D.; Rachel Brudvik, NCI Food Technologist; Thunyaporn Jeradechachai, NCI Crop Quality Specialist; Susan Raatz, Ph.D., USDA-ARS Human Research Center, Grand Forks, N.D.

The team also visited Dakota Specialty Milling, Fargo; North Dakota Mill, Grand Forks, N.D.; MGI Grain Processing, East Grand Forks, Minn.; SB&B Foods, Casselton, N.D.; and the North Dakota Trade Office.

Laird Larson, SD Wheat Commission and Past Chair of the NCC, (left), and David Clough, ND Wheat Commission and NCC Chair, (2nd from left), join the team for a photo in the NCI Pasta Processing Laboratory. Woojoon Park, U.S. Wheat Associates Korea, (2nd from right), escorted the team. NCI Director Brian Sorenson is at right.

Participants did quality evaluations of whole wheat products they made during the course.

Exploring Whole Wheat Foods Short Course August 9-13, 2010



Tulbek explains how milling whole wheat differs from regular flour milling.

Impact of Soy Fortification in Baking is Focus of Two NCI Courses

Israel, Lebanon, Nigeria, and Turkey • July 26-30 and October 4-8, 2010

Two Baking with Soy short courses were conducted at Northern Crops Institute in 2010. The short course participants came to learn more about the effect of enhancing baked products with soy.

Five participants from Israel, Lebanon, and Turkey came to the NCI short course July 26-30. The Minnesota Soybean Research and Promotion Council (MSRPC) and the North Dakota Soybean Council (NDSC) co-sponsored the July course.

Two participants from Nigeria attended the October course. The World Initiative for Soy in Human Health (WISHH), a program of the American Soybean Association (ASA), sponsored the second course. Jim Hershey, Executive Director of WISHH, also attended the October course.

Two participants prepare soy-enhanced doughnuts made during the July Baking with Soy Short Course.

Hikmet Boyacioglu, Ph.D., consultant for the American Soybean Association–International Marketing, Turkey, escorted the first team to NCI.

Boyacioglu commented, "The course participants are from the Middle East, two work at bakeries and three are from flour mills. Some of them are already importing soy flour from the U.S., and others are planning to start using soy flour."

Brudvik and Jeradechachai assist participants with sponge method of bread preparation at the October Baking with Soy Short Course.

"We brought them here to increase their knowledge about soy flour. My impression was that the participants were very pleased to learn more about the functionality and benefits of using soy flour. Hands-on baking experience and the baking tests were very beneficial," Boyacioglu concluded.

Mehmet Tulbek, Ph.D., NCI Technical Director, led the hands-on laboratory courses. Lab instructors were Thunyaporn Jeradechachai, NCI Crop Quality Specialist, and Rachel Brudvik, NCI Food Technologist.

After lectures on the production, utilization, and quality of soy flour, both groups spent most of the week in the NCI baking laboratory. They conducted baking trials of 20 PDI, 70 PDI, and 90 PDI soy-enhanced breads, cakes, cookies, muffins, donuts, tortillas, hamburger buns, bread, and pizza. PDI (or Protein Dispersibility Index) is an important specification for identifying types of soy flour. PDI measures soybean protein solubility in water.

At the first course, Jon Stratford from Natural Products, Grinnell, IA, was a guest lecturer on egg replacement in bakery products.

Participants of the October course were guests at the Bill and Karolyn Zurn farm near Callaway, Minn., during their soybean harvesting. Karolyn Zurn is on the Northern Crops Council.

Cliff Sheely hosted both groups during a tour of Pan-O-Gold Baking Company in Fargo.

Baking with Soy Short Course July 26-30, 2010

Baking with Soy participants visited Bill and Karolyn Zurn's farm during soybean harvest.

Baking with Soy Short Course October 4-8, 2010

Finfish Course Promotes Northern Crops to Aquaculture Industry

Costa Rica, Guatemala, Panama, USA • October 18-22, 2010

The Alternative Ingredients in Finfish Aquaculture Short Course attracted participants from Guatemala, Panama, Costa Rica, and USA. The course promoted the use of alternative ingredients, including DDGS and soy, in feed for warm-water and cold-water finfish species. Jesse Trushenski, Ph.D., Southern Illinois University, a speaker at the course, says aquaculture is expected to grow by 11% per year, significantly outpacing other livestock.

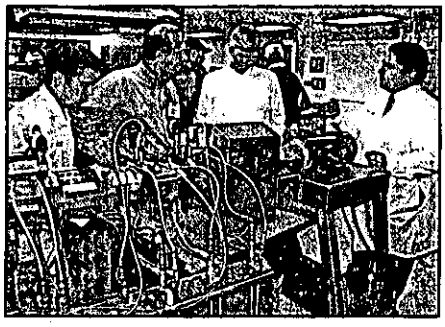
Kurt Shultz, U.S. Grains Council (USGC) Director, Latin America and Caribbean Region, says there is great potential for use of DDGS in Central America, especially if the companies represented increase their inclusion rates. "Among the companies who attended the seminar, the average DDGS inclusion rate is 8 percent for tilapia and none for shrimp. This amounts to roughly 12,000 tons of DDGS or about $1.9 million used annually for aquaculture feed," he says.

Central American feed millers currently produce about 300,000 tons of aquaculture feed annually. Their aquaculture feed use is split between shrimp and tilapia, with Costa Rica and Honduras being the biggest producers.

The first two and a half days of the course were at NCI. For the rest of the week, the group was at SDSU and toured the Blue Dog Lake State Fish Hatchery in Waubay, S.D., SDSU Fish Research Laboratory, Valero Renewables in Aurora, S.D., and MinAqua Fisheries in Renville, Minn.

The short course was held in cooperation with the USDA-ARS North Central Agricultural Research Laboratory and South Dakota State University (SDSU), Brookings. USGC sponsored the short course. Minnesota Soybean Research and Promotion Council provided funding to develop the program. Minnesota Corn Utilization Council, North Dakota Corn Council, and North Dakota Soybean Council funded the tuition.

Kim Koch, Ph.D., NCI Feed Center Manager, coordinated the course. Mike Brown, Ph.D., SDSU, and Kurt Rosentrater, Ph.D., USDA-ARS North Central Agricultural Research Laboratory, Brookings, S.D. were among the short course speakers.



Mehmet Tulbek explains the pelleting process of fish feed during the Finfish Aquaculture course.

Improving Barley Malt Quality Attracts Brewers

Canada and USA • Aug. 17-20, 2010

Fourteen brewers and food processors from Canada and U.S. attended the Barley Malt Quality Evaluation Short Course August 17-20. American Society of Brewing Chemists, Institute of Barley and Malt Sciences, and NCI co-sponsored the course.

Paul Schwarz, Ph.D., NDSU Professor of Plant Sciences, coordinated the course.

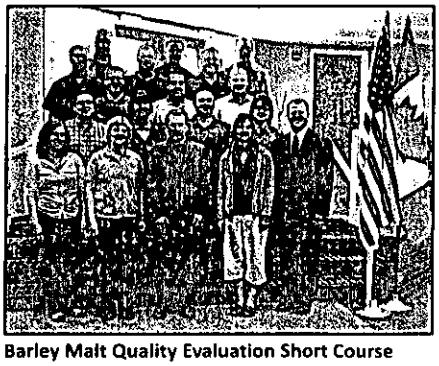
"The new venture' attendees were interested in local supply of ingredients for beer—barley, hops, and water. Traceability and food safety issues, as well as organic production of beer ingredients and requirements of organic malting and brewing processes, were also hot topics," Schwarz says.

The group toured Busch Ag Resources Elevator Operations, West Fargo, N.D., Busch Ag Malt House, Moorhead, Minn., and the NDSU Greenhouse facility.

During the Barley Malt course, Schwarz (right) explains to course participants how research malting procedures are conducted in the NDSU Barley and Malt Quality Lab.

Alternative Ingredients in Finfish Aquaculture Short Course October 18-22, 2010

The aquaculture group toured the Blue Dog Lake State Fish Hatchery in Waubay, S.D.



Barley Malt Quality Evaluation Short Course August 17-20, 2010

End Products Collaborative Opens Door to Understanding Japanese Wheat Needs

When U.S. Wheat Associates offered NCI the opportunity to host the Japanese End Product Collaborative (EPC) at NCI in August, it just seemed like a perfect match to our programs and our technical capabilities.

Serving the needs of customers and producers is always the driving force behind what we do at NCI, and understanding the needs of international buyers is the key to developing new markets and increasing existing markets for U.S. northern-grown crops.

The Japanese EPC team who came to NCI represented the four leading flour mills in Japan. Wataru Utsunomyia, U.S. Wheat Associates Tokyo, accompanied the team.

Nisshin, Nitto Fuji, Nippon, and Showa Sangyo encompass a combined 80% market share. The fifth member of the team was the laboratory director of the Japanese Flour Millers Association.

The team spent five days working with the NCI staff in the NCI Baking Laboratory, exchanging information about protocols for specific end-products, identifying flour quality specifications, and learning more about U.S. wheat classes and blends of classes.

"This collaboration is pushing us forward in understanding what is important to Japan in terms of wheat quality."
Jim Peterson, North Dakota Wheat Commission

Ten wheat varieties were chosen for testing by the North Dakota and Montana Wheat Commissions. In addition, the team shipped Japanese flour to NCI for comparison testing.

"The varieties that were chosen for testing are those that are currently popular with producers and some others that are anticipated to gain acreage in the near future. We also had a few private varieties," says Sorenson.

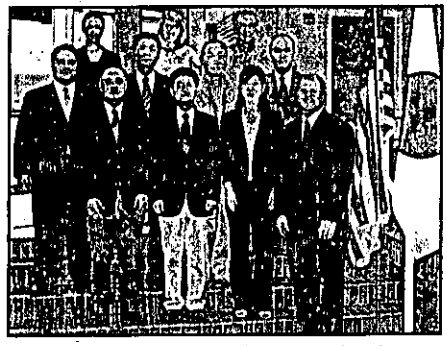
During the week, they baked many loaves of bread and an assortment of specialty bread products, using a variety of methods and ingredients.

"The Japanese EPC Project was organized to help us understand several things: how wheat is baked in Japan, how it is evaluated for quality and what are considered the important attributes of bread and flour quality," says Brian Sorenson, NCI Director.

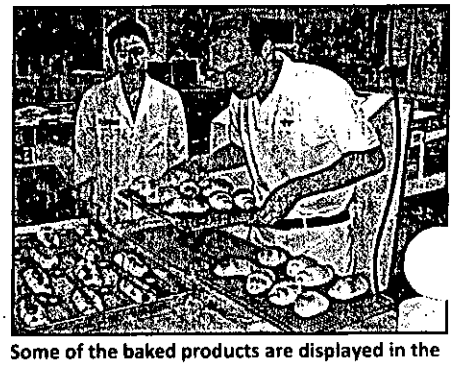
"Understanding all of this helps us provide more accurate programming and better feedback to our wheat breeders and producers about the needs of the international markets."

"The End Products Collaborative is a program that U.S. Wheat Associates has been conducting for a number

David Clough, NCC Chair, (green shirt), joins EPC/ NCI team in preparing specialty breads.



Japanese End Products Collaborative (EPC) Project Conducted at NCI Aug. 30–Sept.3, 2010



Some of the baked products are displayed in the NCI Baking Laboratory.

of years," says Sorenson. "They started with the Asian End Products Collaborative, looking at white wheat in noodles and Asian bread products. It has expanded to include similar programs for Hard Red Spring (HRS) wheat and other wheat classes."

Sorenson gained experience with an EPC project when he traveled to Morocco in October 2009 to establish procedures for bread making with durum semolina for the Durum End Products Collaborative project.

"The Japanese EPC turned out to be a terrific experience," says Sorenson. "We gained a much better understanding about each other's procedures. We always try to be conscious of the needs of our customers. But different methods and different procedures can result in different baking performance. For us to understand what is valuable to the Japanese market, it is important for us to find out how they test the flours. That gives us insight into how they determine different qualities. The factors that they are looking at such as texture, mouth feel, color, shape–all those factors are subtle but important.

"To have this type of program in Japan is our next target," notes Utsunomyia. "The millers intend to bring back the same varieties of flours and then re-test them in Japan, using their own methods and equipment. It is necessary to compare under the same conditions."

"Most Japanese bread flour is a mix of NS/DNS and Canadian wheat. As a subclass of wheat, NS/DNS is the biggest item of Japanese imported wheat. We have been importing 5 MT, more or less 1.3 MT is NS/DNS. This quantity is much larger than Canadian wheat," concludes Utsunomyia.

"There is a long history between Japan and the North Dakota wheat producers," says Jim Peterson, Marketing Director with North Dakota Wheat Commission. "This has evolved to include NCI, the other regional wheat states, and a new generation of technicians with the four largest Japanese flour mills."

Japanese EPC team joins NCI Director Brian Sorenson and NCI Technical Director Mehmet Tulbek to evaluate several loaves of bread baked from different wheat varieties.

"This collaboration is pushing us forward in understanding what is important to Japan in terms of wheat quality, and it gives Japanese millers a better understanding of our evaluation methods. These things are critical to ensure that we stay in touch with changing moods of the industry and help to ensure that we don't lose market share," concludes Peterson.

U.S. Wheat Associates fund the EPC program through Market Access Program funds that come through USDA's Foreign Agricultural Service. Strong support also comes from the state wheat commissions in Minnesota, Montana, North Dakota and South Dakota.

The EPC team visited the ND Mill in Grand Forks, N.D., and presented Vance Taylor, ND Mill President and CEO, (third from right), and Travis Devlin, ND Mill Head Miller, (fourth from left), with two loaves of bread baked for them by the EPC team.

NCI Staff in the NCI Flour Mill. Front row, l to r: Mehmet Tulbek, Rilie Morgan, Rachel Brudvik, Thunyaporn (Naggie) Jeradechachai, Kim Koch, Linda Briggs. Second row, l to r: Alyssa Hicks, Pat Limesand, and John Crabtree. Back row, l to r: Brian Sorenson, Sally Backman.

2011 Short Courses...Short Courses...Short Courses

Tentative Schedule

March 15-17	Feed Safety and Development of a HACCP Plan
April 5-8	Agricultural Microscopy
April 12-14	Pasta Production and Technology
April 26-28	Functionality of Canola and Flaxseed
May 9-13	Alternative Ingredients in Finfish Aquaculture
May 16-20	Advanced Grain Procurement Strategies
June 6-10	DDGS and Soy: Nutrition, Use and Feed Manufacturing
June 21-23	Basics of Wheat and Flour Quality
July 11-15	Baking with Soy
July 26-28	Pulse Quality and Utilization
August 8-12	Pasta: Raw Materials and Processing Technology
Sept. 19-28	Grain Procurement Management for Importers
Oct. 3-4	Experimental Milling
Oct. 5-7	Experimental Baking
Oct. 25-27	Understanding Northern Feed Ingredients

Check our website for the most up-to-date information.

www.northern-crops.com

Nisshin's Kenichiro Takamatsu Is NCI's Third Visiting Scholar

Kenichiro Takamatsu, Senior Staff with Nisshin Flour Milling, Japan, is the third visiting scholar from Nisshin to study at NCI. The Visiting Scholar Program has enabled three Nisshin employees to spend a year at NCI to learn more about U.S. HRS wheat production and its availability in their desired quality.

Takamatsu

"The Visiting Scholar Program is in its final year and has proven to be a great opportunity for NCI," says Sorenson. "The program helped us gain a tremendous amount of insight into the Japanese market, which is very important to our region. Japan is the number one purchaser of U.S. Hard Red Spring wheat. This program gave us unique opportunity to understand how we can meet their needs," Sorenson concludes.

The first and second Nisshin scholars were Bungo Hirano in 2008-09 and Kenji Motomatsu in 2009-10.

"Our country is one of the largest buyers of U.S. wheat, and Nisshin is the largest consumer of U.S. wheat in Japan," says Takamatsu. "HRS is particularly necessary for us to make bread flour and Chinese noodle flour for the Japanese market. Our customers want to use high-quality and stable flour in their products."

"My main goal while I'm at NCI is to increase my knowledge about the HRS quality and the U.S. grain system, from their farms to our company. I've been here for five months and I already have learned a lot. I'll be here for another half year. I'm very thankful to Brian and all the NCI staff for letting me join this program and allowing me to work with them," Takamatsu concludes.

Takamatsu was accompanied to Fargo by his wife, Yukiko, and their daughter, Risako. Yukiko and Risako returned to Japan in November.

Special Thanks to All Who Supported NCI Programs and Activities in 2010

North Dakota State University
- Agribusiness and Applied Economics
  - William Wilson, Ph.D.
  - Frayne Olson, Ph.D.
- Animal and Range Sciences
  - Kurt Johnsen
  - Greg Lardy, Ph.D.
- Research Extension Center
  - Vern Anderson, Ph.D.
- Cereal and Food Sciences
  - Clifford Hall, Ph.D.
- Plant Sciences
  - Elias Elias, Ph.D.
  - Rich Horsley, Ph.D.
  - Hans Kandel, Ph.D.
  - Frank Manthey, Ph.D.
  - Kevin McPhee, Ph.D.
  - Mohamed Mergoum, Ph.D.
  - Paul Schwarz, Ph.D.
  - Senay Simsek, Ph.D.
  - Stan Stancyk

ADM-Benson Quinn, Minneapolis, MN
- Kerry Melius

American Feed Industry Association
erican Soybean Association
eriFlax
- Sheri Coleman

Auburn University, Dept. of Fisheries and Allied Aquaculture, Auburn, IL
- Donald A. Davis, Ph.D.

Axor America, Dracuti, MA
- Bruno Giberti

Blue Dog Lake State Fish Hatchery
Waubay, S.D.
- Matthew Ward

Branscan Ltd., Evesham, England
- Aytun Erdentug

Briess Malt & Ingredients Co., Chilton, WI
- David Kuske

Buhler, Minneapolis, MN
- Michael Ehr

Busch Ag Resources, Moorhead, MN
- Paul Bolin
- Judd Carlson
- Craig Mohr

West Fargo, ND
- John Evanger

Cargill, Inc., Minneapolis, MN
- Maurice Hurst

CHS, Inc., Inver Grove Heights, MN
- Roger Baker
- Mike Klein

Superior, WI
- Dick Carlson

Columbia Grain, Minneapolis, MN
- Ron DeJongh

Dakota Growers Pasta Co., New Hope, MN
- Alexis Freier
- Radwan Ibrahim, Ph.D.

Dakota Specialty Milling, Fargo, ND
- Joel Dick
- Robert Meyer
- Daryl Bashor

Dan Maldari & Sons, Brooklyn, NY
- Dan Maldari

DeMari Pasta Dies, Dracuti, MA
- Gabriele Cannata

FC Stone, St. Louis Park, MN
- David Bullock, Ph.D.

Frontier Futures, Minneapolis, MN
- Austin Damiani

GIPSA/FGIS, Superior, WI
- Art Boline

Hunter Grain Co., Hunter, ND
- Paul Skarnagel

Lab Synergy, Goshen, NY
- Jason Romberg

Malteurop North America, Milwaukee, WI
- Derek Prell

MGI Grain Processing LLC, East Grand Forks, MN
- Roger Hipwell

MinAqua Fisheries Coop, Renville, MN
- Mel Stocks

Minneapolis Grain Exchange
- Joe Albrecht
- Rita Maloney

Minnesota Corn Research/Promotion Coun.

Minnesota Department of Agriculture

Minnesota Soybean Research and Promotion Council

Minnesota Wheat Research and Promotion Council

Montana Wheat and Barley Committee

Monsanto, St. Louis, MO
- Todd Pester, Ph.D.

Montana State University

National Grain and Feed Association

Natural Products Inc., Grinnell, IA
- Jon Stratford

North Dakota Barley Council

North Dakota Corn Council

North Dakota Grain Inspection Service
- Darcy Rasmussen

North Dakota Oilseed Council

North Dakota Soybean Council

North Dakota State Mill, Grand Forks, ND
- Travis Devlin
- Randy Egstad
- Vance Taylor

North Dakota Wheat Commission
- Neal Fisher
- Erica Olson
- Jim Peterson

Northarvest Bean Growers

Northern Canola Growers Association
- Barry Coleman

Northern Pulse Growers Association
- Kaye Effertz

Ohio State University School of Environment and Natural Resources
- Konrad Dabrowski, Ph.D.

Pan-O-Gold Baking Company, Fargo, ND
- Cliff Sheely

Philadelphia Macaroni Co., Grand Forks, ND
- Bill Stabert

Rahr Malting Company, Shakopee, MN
- Jesse Theis

SB&B Foods, Casselton, ND
- Robert Sinner

Seaway Port Authority of Duluth
- Ron Johnson
- Adolph Ojard
- Adele Yorde

South Dakota Corn Utilization Council

South Dakota Soybean Research and Promotion Council

South Dakota State University
- Animal and Range Science
  - Bob Thaler, Ph.D.
- Wildlife and Fisheries Science
  - Mike Brown, Ph.D.

South Dakota Wheat Commission

Southern Illinois University Fisheries and Illinois Aquaculture Center at Carbondale, IL
- Jesse Trushenski, Ph.D.

State of North Dakota

State of South Dakota

Trading Technologies, Chicago, IL
- Tanya Hart Coakley

Union Pacific Railroad, Omaha, NE
- Bradley Clow

U.S. Dry Bean Council

USA Dry Pea and Lentil Council

USDA/ARS, Fargo, ND
- Lynn Dahleen, Ph.D.
- Shiaoman Chao, Ph.D.

USDA/ARS Human Research Center, Grand Forks, ND
- Susan Raatz, Ph.D.

USDA/ARS, Brookings, SD
- Kurt Rosentrater, Ph.D.

U.S. Grains Council

U.S. Soybean Export Council

U.S. Wheat Associates
- Steve Wirsching

University of Minnesota

Valero Renewables, Aurora, SD

Technical Team Conducts Projects to Promote Multiple Northern Crops

Tulbek is Facilitator of Pulse Health Initiative

Tulbek

Mehmet Tulbek, Ph.D., NCI Technical Director, is one of the facilitators of the Pulse Health Initiative, an outgrowth of the new American Pulse Association, established by the USA Dry Pea and Lentil Council (USADPLC) and U.S. Dry Bean Council. The purpose of the new association is to secure pulse research and promotion funding through U.S. government programs, such as the USDA and USAID.

Jeradechachai Studies Shelf-Life of Pea Flour

Thunyaporn (Naggie) Jeradechachai, NCI Crop Quality Specialist, is collaborating with Clifford Hall, Ph.D., NDSU Dept. of Cereal and Food Sciences, to research shelf life stability of pea flour.

"We processed the pea flour using extrusion and hydrothermal treatments and will track the changes in the products over time," Jeradechachai explains. "The changes that we characterize are chemical and enzymatic lipid oxidation, microbial, volatile compounds, and some other physical parameters. The ultimate goal of this project to estimate the shelf life of pea flour and to identify the optimum processing method to increase the stability of pea flour. Understanding the shelf life of pea flour is very important when we ship products longer distances, especially to developing countries in the food aid markets," she concludes.

NCI Joins USDA Bean CAP Project at NDSU

NCI is collaborating on the USDA Bean Coordinated Agricultural Project (CAP). Phil McLean, Ph.D., NDSU Plant Sciences Dept., leads the project that will map the quality traits, genetic mapping, and nutritional quality traits of edible beans grown in the U.S. This three-year project is the first CAP project coordinated by NDSU faculty.

"NCI's responsibility will be to conduct fiber, oil and protein analysis of edible beans. Six hundred samples will be analyzed the first year, 200 the second year, and 200 the third year. We will also develop the NIR calibrations for beans. These calibrations will be used for future tests by breeders to develop new bean varieties," says Tulbek.

Sorenson Gives Wheat Quality Reports in Asia

NCI Director Brian Sorenson presented the 2010 HRS and Durum Wheat Quality Reports at the Asian Crop Quality Seminars, hosted by U.S. Wheat Associates in November. This is Sorenson's 9th consecutive year to travel with the team to Asia. Sorenson spoke to crop buyers in Philippines, Thailand, Taiwan, Japan, and Korea.

"The U.S. Wheat Associates Crop Quality Seminars are a wonderful opportunity to have direct contact with a large percentage of the HRS buyers in Asia," says Sorenson. "At each seminar, we average between 60-100 participants. We gather feedback from our customers about their needs that we pass on to our wheat breeders and producers, and we help buyers work through any quality issues they have encountered. The 2010 crop is quite good from the grain quality standpoint; however, the gluten strength and DHV are lower than we'd like them to be," Sorenson concludes.

Isoflavone Calibration Work Continues

NCI has worked in collaboration with the University of Minnesota since 2008 developing soybean quality testing, understand more about soybean quality attributes.

"This data is presented to buyers and processors in Asian food-grade soybean markets for products such as tofu, natto, miso, and soy sauce," says Mehmet Tulbek, NCI Technical Director.

"Japanese and Korean buyers are very health conscious and they want to know the isoflavone levels of the soybeans they buy," he explains.

NCI has been involved in developing isoflavone calibrations for the NIR near-infrared analysis through work with Perten Company and University of Minnesota soybean researchers Jim Orf, Ph.D., and Art Killam. Funding for this work comes from the United Soybean Board and Minnesota Soybean Research and Promotion Council.

Alyssa Hicks Named Milling Specialist at Northern Crops Institute

Alyssa Hicks is the new Milling Specialist at Northern Crops Institute. Hicks began her duties at NCI in June. Hicks is a 2010 graduate of Kansas State University, Manhattan, where she earned a bachelor of science degree in Milling Science and Management. In 2009, she was a mill intern at Dakota Growers Pasta, Carrington, N.D.

Hicks

"Alyssa is a great addition to our team," says Brian Sorenson, NCI Director. "She will help us grow our programs and services in the milling of wheat and other regional crops. Hicks is off to a great start here at NCI, taking on the challenges of operating the NCI mill with a lot of interest and energy."

Hicks' duties include providing expertise in flour milling for the wheats grown in North Dakota, South Dakota, Minnesota, and Montana. In addition to operating the NCI pilot-scale flour mill, she will teach in NCI short courses and provide technical expertise for the promotion of northern-grown wheat. In 2009, NCI's pilot durum mill was convert into a dual-purpose mill to make pilot-scale or test-scale quantities of bread wheats (Hard Red Spring, Hard Red Winter and Hard White) into flour for quality and evaluation.

NCI Feed Center Supports Feed Education and Research Programs

Feed Production

"This year, the NCI Feed Center produced 1,368 tons of feed, an average of 28 tons/work week," says Kim Koch, Ph.D., NCI Feed Center Manager. "In 2010, 970 tons of corn, 228 tons of soybean meal, 56 tons of DDGS, and 47 tons of soybean hulls were used in teaching and research diets," he says.

Koch

Feed Short Courses

Co-products from the Renewable Fuels Initiative continue to be used in feed manufacturing, providing education and technical assistance opportunities for NCI.

The U.S. Grains Council sponsored a Distiller's Dried Grains with Solubles (DDGS) seminar program for Mexico's largest feed producer (Bachoco). Koch was co-leader of the seminar, along with Vern Anderson, Ph.D., NDSU Extension, and Bob Thaler, Ph.D., SDSU.

NCI presented the Alternative Ingredients in FinFish Aquaculture Short Course for participants from Central ...erica and USA (see page 11). The course included demon...trations of floating feed production using extrusion processing; texture/taste analysis of fish; and site visits to Blue Dog Lake Fish Hatchery in Waubay, S.D.; Valero Renewables, Aurora, S.D.; and the MinAqua tilapia production facility in Renville, Minn.

Other Feed Education Programs

- Improving Chinese dairy production through the North Dakota SuperFeed program.
- Feed manufacturing technology for a Tajikistan feed team.
- Feed safety program for a Bulgarian feed team.
- Feed manufacturing technology program for a Vietnamese feed team.

Animal Trials

- Dry peas in swine finishing diets.
- Glycerol combined with DDGS in pelleted swine finishing diets. Glycerol is a co-product of biodiesel production.
- Fetal imprinting through exercise, no-exercise during sow gestation – results show increased piglet birth weights and continued performance boost during grow-finish phase.
- DDGS in sheep grower diets.
- SuperFeed study with lactating dairy cows.
- Yellow perch study with staff at Cankdeska Cikana Community College, Ft. Totten, N.D.

Each of these feed programs emphasized the quality and value intrinsic to northern-grown crops and co-products.

The following crops or their milled products were tested at NCI in 2010:

Amaranth	Canola	Soybeans
Barley	Chickpeas	Sugarbeet
Beans	Corn	Sunflower
Black	Flaxseed	Confection
Great Northern	Lentils	Oil
Navy	Millet	Wheat: Durum
Pinto	Oats	Hard Red Spring
Red	Peas	Hard Red Winter
Buckwheat	Sorghum	Hard White

Thunyaporn Jeradechachai (right), NCI Crop Quality Specialist, Jennifer William (center), USA Dry Pea and Lentil Council, and Kaye Effertz (left), Northern Pulse Growers Association, promoted pulse crops during the Annual Meeting of the Institute of Food Technologists (IFT) in Chicago in July. Jeradechachai provided technical solutions on the quality and utilization of pulse crops. She says, "Many attendees work in the research and development areas. They are excited to learn about pulse crops as alternative ingredients and to hear of ways to improve the nutrition and functionality of their products."

Rachel Brudvik, NCI Food Technologist, (second from left), and Thunyaporn (Naggie) Jeradechachai, NCI Crop Quality Specialist, (second from right), attended the Specialty and Hearth Breads Course at the Culinary Institute of America. "We learned various bread baking techniques utilizing wheat, barley, rye, durum, corn and chickpeas. From this intense hands-on experience, my bread baking knowledge and techniques have significantly improved. At NCI, we bake bread scientifically; however, they taught us to make bread more artistically. We learned to make specialty breads from various countries, such as France, Italy, Germany, Algeria, Mexico, Greece and others," says Jeradechachai.

NCI Conducts Pea Flour Product Development Trials for NPGA

Eighty-five percent of all U.S. dry peas produced in 2009 were grown by North Dakota and Montana producers. While the U.S. exports some of its dry pea crop to India, Bangladesh, China, and Pakistan, domestic markets for U.S. dry peas are becoming more significant. However, before food companies will invest in new ingredients such as dry peas, product developers must understand their functionality and have ideas about how to incorporate them into products.

Northern Pulse Growers Association (NPGA) teamed up with the NCI technical staff for another year to develop recipes using dry peas. In 2009, the project focused on pea flour-based recipes. This year's projects used pea protein concentrate in the recipe development trials. Thunyaporn Jeradechachai, NCI Crop Quality Specialist, and Rachel Brudvik, NCI Food Technologist, developed pea-enhanced penne, spaghetti, ravioli, waffles, banana bread, cake and several other recipes. NCI Technical Director Mehmet Tulbek supervised the project.

"In our trials this year, we used pea protein and pea starch concentrates instead of the cooked pea flour. At the moment, pea protein and starch concentrates are unique ingredients so that we can improve functional and nutritional benefits of food products," explains Tulbek. "Pea protein concentrate is a very good ingredient for pasta applications because it increases protein and pasta firmness levels. Pea starch can also be utilized in starch noodles and gluten-free pasta. For each of these products, we are targeting different market segments," Tulbek concludes.

The members of the Chinese Pea Quality Team make pea-enhanced baked products during the workshop in August.

Chinese Team Studies Dry Pea Quality at NCI

A Chinese team came to a workshop at NCI in August to learn more about U.S. dry peas. The workshop was co-sponsored by the USA Dry Pea and Lentil Council (USADPLC). Pete Klaiber, USADPLC Director of Marketing, escorted the team.

"China is a significant importer of U.S. dry peas, and the market is growing due to the interest of the starch noodle industry. Vermicelli noodle manufacturers utilize dry peas and want to learn about starch, protein and fiber fractions of the dry pea crop. In this workshop, we educated the participants in using dry pea quality, starch and protein utilization technologies, milling, air classification and wet fractionation technologies and co-product processing," says Tulbek.

Thunyaporn Jeradechachai presented the 2009 U.S. Pulse Quality Survey and led the laboratory baking sessions. Clifford Hall, Ph.D., Dept. of Cereal and Food Sciences, discussed the pulse utilization projects being conducted at NDSU.

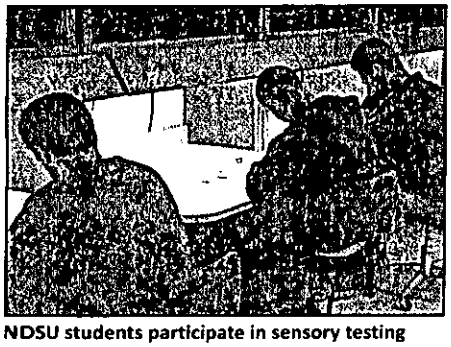
Pea Protein Concentrate Touted as Egg Replacement

NCI staff have been working on a project to demonstrate that pea protein concentrate can be used as an egg replacement. The project is funded as a USDA Cool Season Food Legumes Project through the Northern Pulse Growers Association.

Eggs are one of the most common allergy-causing foods, especially in children. "If we replace 100% of the eggs, we can make the product egg-free, so that the product is allergen-free," explains Mehmet Tulbek, NCI Technical Director.

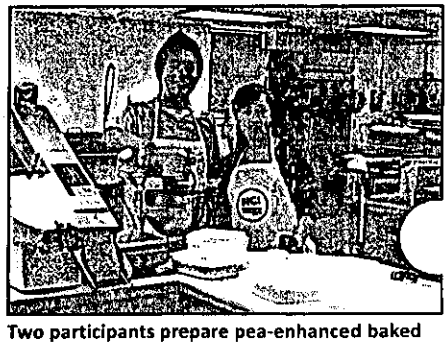
"Eggs are an FDA-accepted allergen product. This becomes a big problem for food companies as they isolate their processing lines to separate allergen ingredients versus allergen-free. As we substituted pea proteins for some or all of the eggs, we produced baked products and pasta very similar to those containing eggs. Attributes such as protein, particle size, appearance, and functionality of pea protein concentrate are all very similar to eggs."

"The only challenge for us is the taste. Pea protein concentrate tastes a little different than eggs. For some consumers, this may not be appealing. We are using other ingredients such as sugar, vanilla extract or other extracts to mask the pea flavor," he concludes.



NDSU students participate in sensory testing during pea product development trials.

USADPLC Chinese Pea Quality Workshop August 19-20, 2010



Two participants prepare pea-enhanced baked goods during the Chinese Pea Quality Workshop.

Five Pulse and Oilseed Crop Quality Surveys Prepared at NCI in 2010

Crop quality surveys are becoming an increasingly important part of the information conveyed to crop buyers at the NCI short courses and to international trade teams. These surveys are the analytical data that the NCI technical staff collects on various quality components of each crop.

Jeradechachai

Thunyaporn Jeradechachai, NCI Crop Quality Specialist, oversees the pulse and oilseed crop quality surveys.

"The quality attributes that we analyze are directly related to the product processing quality, especially in products such as canned pulses, soups or fried snacks," says Mehmet Tulbek, NCI Technical Director.

"The most important issues are seed firmness and soaking quality. Those are important factors for importers, who like to know about quality before they purchase. Consistency is very important. If you have harvest or storage issues, soaking and firmness problems may arise," says Tulbek.

In 2010, Northern Crops Institute prepared these crop quality surveys:

- National Pulse Quality Survey for Northern Pulse Growers Association. Samples were received from North Dakota, Montana, and South Dakota.
- Northern Canola Quality Survey for Northern Canola Growers Association. Samples were received from Wisconsin, Minnesota, and North Dakota.
- North Dakota Commodity Soybean Quality Survey for the North Dakota Soybean Council
- North Dakota Identity-Preserved Soybean Quality Survey for the North Dakota Soybean Council
- Flaxseed Quality Survey for AmeriFlax, prepared in conjunction with Clifford Hall, Ph.D., at NDSU.

In the U.S., the pulse quality survey is essential for canners, who use a fair amount of pulses in their soups and canned products. Another area where the survey is important is the Chinese vermicelli market. Chinese pea buyers want to buy peas based on the starch content instead of protein or fiber.

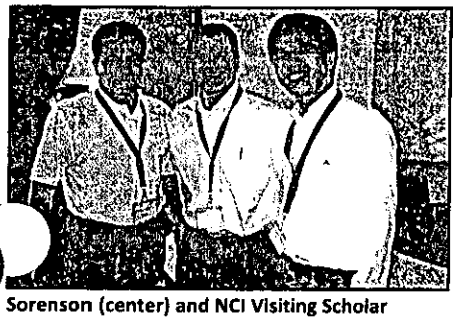
NCI Technical Staff Collaborates on Several Edible Bean Projects

Energy Bar from Dry Edible Beans: NCI's technical staff is working with Clifford Hall, Ph.D., NDSU Department of Cereal and Food Sciences, on developing an energy bar from extruded crispy rice with red, navy, black, and pinto beans. The objective of the project is to develop a nutritious granola bar with low glycemic index, high dietary fiber, and high protein. NCI is the processing and product development arm of this project. This project is supported by Northarvest Bean Growers. Mehmet Tulbek is the coinvestigator.

Pea Quality for Vermicelli Noodle Industry: NCI's technical staff and Dr. Hall are evaluating regional pea varieties for the starch and vermicelli noodle industry. The project will assess pea varieties from North Dakota to establish the Asian vermicelli processing and product quality of the varieties. This project is funded by the Northern Pulse Growers Association.

TVP Quality of Bean Flours: The NCI technical staff is investigating the texturized vegetable protein (TVP) quality of different edible bean flours—red, navy, black, and pinto beans—in order to make TVP to use like a meat analog. This is a project funded by Northarvest Bean Growers under the USDA Specialty Crop Grant. Dr. Clifford Hall is the principal investigator. Tulbek is the coinvestigator.

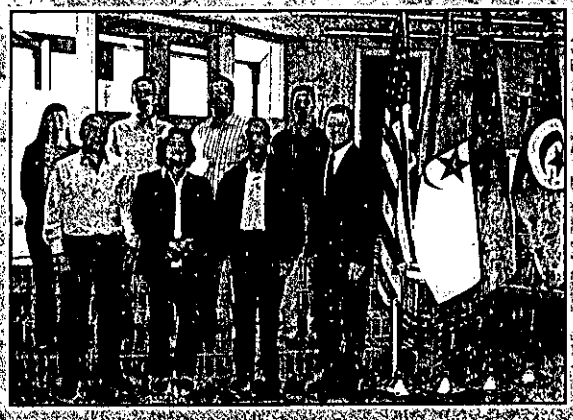
Emerging Market Programs in Southeast Asia: NCI collaborated with the U.S. Dry Bean Council ASEAN office on an Emerging Market Program (EMP) for the SE Asia market. NCI staff developed extruded beans and extruded meat analog with bean flour. Tulbek also did two outreach seminars on extruded snacks and the TVP products. These programs were supported by USDA and the U.S. Dry Bean Council to develop Asian markets, primarily Philippines, Malaysia, Vietnam, Singapore, Thailand, Indonesia, Laos, and Cambodia.

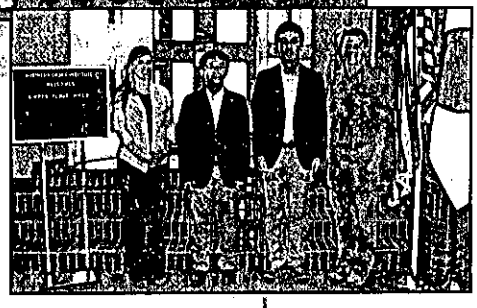


Sorenson (center) and NCI Visiting Scholar Takamatsu (right) with René Steiner (left) at Buhler's 150th Anniversary in Plymouth, Minn.

The North Dakota Trade Office brought a group of international visitors (right) from Russia, Ukraine, Kazakhstan, South America, and South Africa to NCI to learn more about agriculture in the region. The visitors were in town to attend the Big Iron Farm Show.

Trade Teams and International Consulting





Algeria, Morocco, Tunisia... A six-person team from North Africa came to NCI to learn more about the current durum crop. The team visited a local farm, elevator, grain inspection facility, labs, and research facilities. The team was hosted by Erica Olson, ND Wheat Commission, and sponsored by the USDA Foreign Agricultural Service's Cochran Fellowship Program and U.S. Wheat Associates. In 2009-10, the three countries combined purchased 13 million bushels of U.S. durum wheat.

Japan... Two teams from Nippon Flour Mills, Japan, visited the region to assess the quality of the 2010 wheat crop. They were hosted by Erica Olson, Marketing Specialist for the North Dakota Wheat Commission. After an overview of NCI and tour with NCI Director Brian Sorenson, they met with several NDSU experts to learn more about the regional wheat situation. The Japanese market is the largest buyer of U.S. HRS wheat.

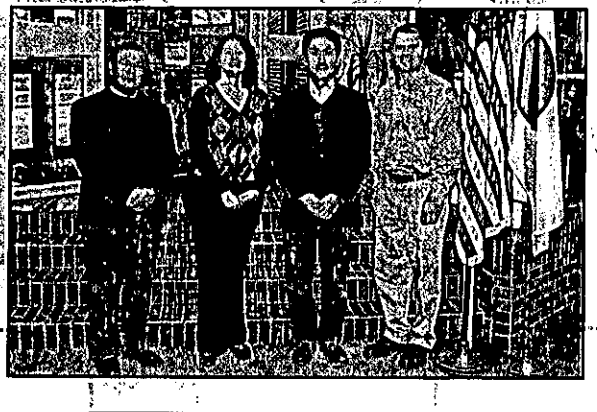
Malaysia... Mehmet Tulbek, NCI Technical Director, traveled to Malaysia to speak at the Development of Healthy Instant Noodles with U.S. Pea Flour Technical Seminar and Workshop in Kuala Lumpur during May. Tulbek also visited Interflour Milling Company Technical Center in Kuala Lumpur. The seminar was organized and sponsored by USA Dry Pea and Lentil Council. The objective of this program was to introduce pea flour as a functional ingredient in noodle products for the region and to provide technical information regarding the use of pea flour for end-use applications.

Italy... An Italian Young Millers team visited NCI in April to obtain a better understanding of the U.S. marketing system, quality of HRS and durum and breeding efforts to enable them to make purchasing decisions. Goris van Lit and Rutger Koekoek, U.S. Wheat Associates Rotterdam, escorted the group. The team was hosted by Erica Olson, ND Wheat Commission. Italy is the number one importer of U.S. durum with average purchases of about 11 million bushels and they also buy a significant amount of HRS.

Japan... Yamazaki Baking Company and Sugiyama Shoji Company visited NCI to learn about the NCI mission. The visit was part of a meeting hosted by Roman Meal Company and Dakota Specialty Milling, Inc., so that the Japanese customers could observe mill processing operations and meet some of their ingredient vendors. Dakota Specialty Milling, Inc., manufactures multigrain products for these companies on behalf of Roman Meal Company.

Indonesia... An IP Soybean Trade Mission Team, hosted by the North Dakota Trade Office, came to NCI in September to learn more about IP soybeans grown in the region. The team was sponsored by ASA-IM, ND Soybean Council, Northern Food-Grade Soybean Association and the N.D. Department of Agriculture.

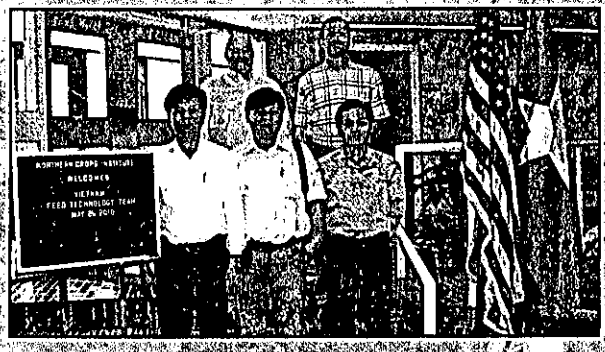
Japan...A team from United Harvest Group visited Northern Crops Institute to learn more about the 2010 wheat crop. They were welcomed and hosted by NCI Director Brian Sorenson, who discussed the region's agriculture. Senay Simsek, Ph.D., NDSU Plant Sciences Dept., discussed the HRS crop quality.



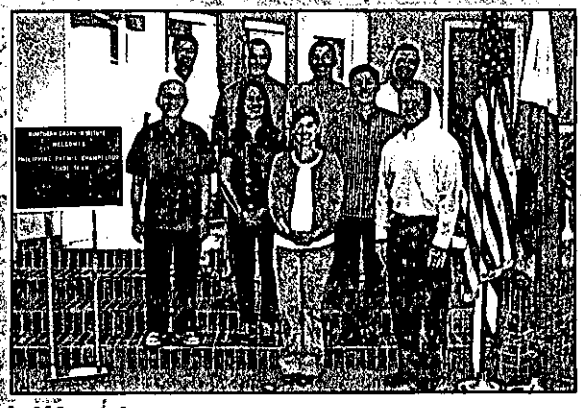
Thailand... Mehmet Tulbek, Ph.D., NCI Technical Director, traveled to Thailand to speak at the New Innovative Vegetable Proteins with U.S. Dry Bean Applications Seminar in Bangkok during July. Tulbek also visited with milling, baking and snack food company officials in Bangkok. The program was sponsored by the USDA and organized by the U.S. Dry Bean Council, ASEAN (Southeast Asia) Office.

Turkey...A delegation from the Beta Agriculture and Seed Company, Turkey, visited NCI in May and learned about regional agriculture, and NCI's educational, technical, crop quality and by-product utilization programs. The delegation was led by Mr. Yavuz Erence and hosted by Mehmet Tulbek, NCI Technical Director, and Dean Gorder, Executive Director, North Dakota Trade Office.

Trade Teams and International Consulting



Vietnam... A Vietnam feed team of Dr. Nguyen Van Dien of Bayer Animal Health, Nguyen Hong Dien and Dang Vu Thien Minh from Green Feeds visited NCI to discuss swine nutrition and production with Bob Thaler, Ph.D., SDSU, and to learn about the latest in feed manufacturing technology from Kim Koch, Ph.D., NCI's Feed Center Manager. Koch and Thaler have been in Vietnam several times providing educational programming in support of U.S. DDGS use in animal feeds.

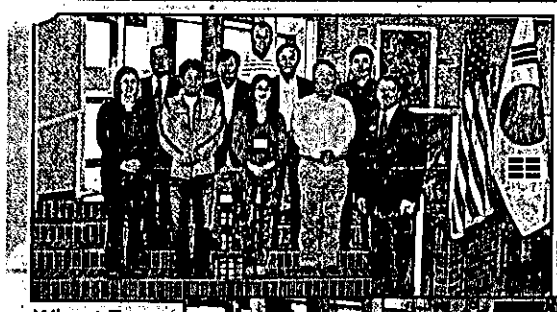


Philippines... The Philippine Pafmill-Champflour Team met at NCI to learn more about the region's HRS Wheat. Their escort was Shane Townsend, U.S. Wheat Associates, Manila. They were hosted by Erica Olson, ND Wheat Commission. No wheat is produced in the Philippines so they rely on imports to meet their domestic needs. The U.S. traditionally supplies about 50 percent of the Philippines' wheat needs.

China... A delegation from the Zhejiang Economic and Trade Polytechnic (ZJETP) in Hangzhou, China, visited NDSU for training in academic matters. The group stopped at NCI, where they were introduced to regional agriculture by NCI Director Brian Sorenson. Clifford Hall, Ph.D., NDSU Dept. of Cereal and Food Sciences, escorted the group. They came to the U.S. to discuss NDSU and ZJETP agreements for joint programs in Computer Science and Food Safety. They also completed tours to learn more about NDSU and North Dakota.

Japan... A four-member Japanese millers team came to NCI to learn more about biotech wheat, quality comparisons of hard red spring (HRS) and durum wheat varieties, and wheat breeding efforts. Team members represented some of the largest flour mills in Japan. They were accompanied by Wataru Utsunomiya, U.S. Wheat Associates Tokyo and hosted by Erica Olson, ND Wheat Commission.

Kosovo... A six-member team from Kosovo visited NCI to learn more about regional agriculture. The focus of this Cochran Fellowship group was the formation and implementation of U.S. agricultural policy. NCI Director Brian Sorenson introduced them to the crops grown in the region and the work done at NCI. The group also toured the NCI Feed Center, hosted by Kim Koch, Ph.D., manager.

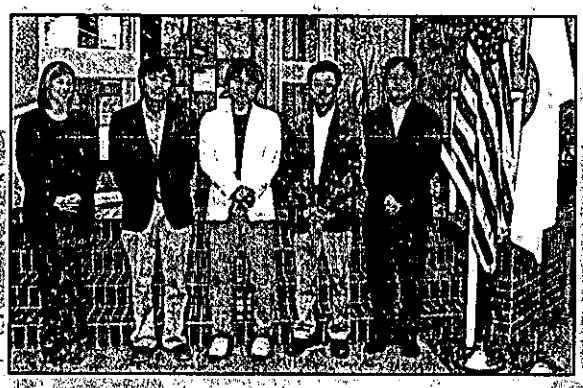


Wheat Team

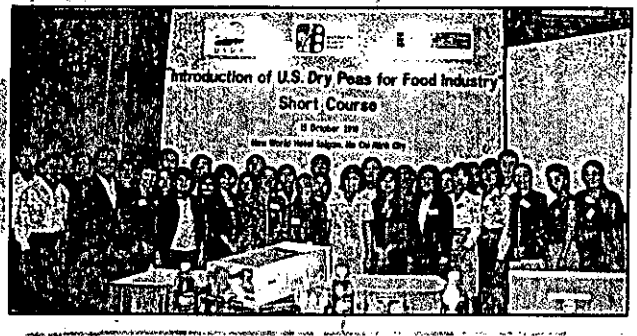
Flax Team

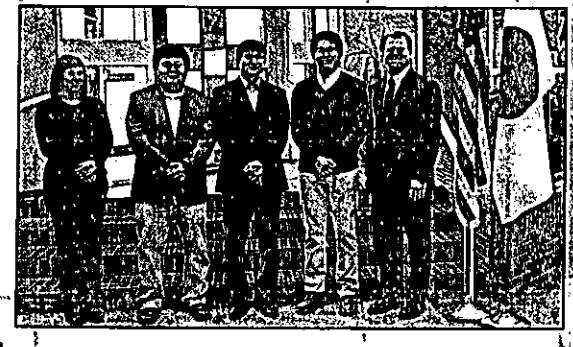
Soybean Team

Korea...A 24-member Korean Reverse Trade Mission, hosted by the North Dakota Trade Office, came to NCI to learn more about the crops grown in the region. The trade group consisted of a wheat team, a soybean team and a flax team. NCI Director Brian Sorenson welcomed the teams and introduced them to the region's agriculture industry. Several experts discussed quality, breeding programs and the 2010 crops of wheat, soybeans, and flax.



Japan...A combined team from Toyota Tsusho, a trading company, and Showa Sangyo, a food and feed company, came to North Dakota in September to learn more about the 2010 wheat crop. They were hosted by Erica Olson, N.D. Wheat Commission. While they were at NCI, they heard reports from Olson, and NDSU professors Mohamed Mergoum, Ph.D., Senay Simsek, Ph.D., Frank Manthey, Ph.D., and William Wilson, Ph.D., on the 2010 crops.





Japan... Three representatives from Nisshin Flour Mills came to NCI in October to gain a better understanding of the 2010 wheat crop. They were hosted by Erica Olson of the North Dakota Wheat Commission. Olson presented an overview of the 2010 HRS and durum crops. Senay Simsek, Ph.D., NDSU, discussed the crop's quality. Frank Manthey, Ph.D., NDSU, gave an overview of the 2010 durum crop.

Vietnam and Indonesia... Mehmet Tulbek, Ph.D., traveled to Indonesia and Vietnam to speak at the Healthy Snack and Baking Innovation Seminar in Jakarta and Introduction to U.S. Dry Peas to Food Industry Seminar in Ho Chi Minh City in October. He also visited with milling, baking and snack food company officials in Jakarta. The program was sponsored by USDA and organized by the USA Dry Pea and Lentil Council, ASEAN Office.

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2010 Annual Update

Offering Technical Services and Educational Opportunities

Educational Courses:

- Value-Enhanced Uses
- Grain Standards and Inspection
- Procurement, Risk Management
- Quality, Processing, and Milling
- Extrusion Technology
- Pasta Processing
- Feed Milling and Manufacturing
- Customized Seminars

Technical Services:

Pilot-Scale Processing

- Milling
- Baking
- Pasta Processing
- Extrusion
- Post-extrusion
- Feed
- Industrial

NCI can provide:

- Up-to-date Information
- Fully-equipped Labs
- Hands-on Experiences
- Confidential Environment
- Network of Resources

Connecting in the Global Marketplace

NCI Staff

Brian Sorenson, Director
John Crabtree, Assistant Director
Sally Backman, PR/Communications Specialist
Linda Briggs, Office Manager
Rachel Brudvik, Food Technologist
Alyssa Hicks, Milling Specialist
Naggie Jeradechachai, Crop Quality Specialist
Kim Koch, Ph.D., Feed Center Manager
Pat Limesand, Account Technician
Rilie Morgan, Processing Specialist
Mehmet Tulbek, Ph.D., Technical Director

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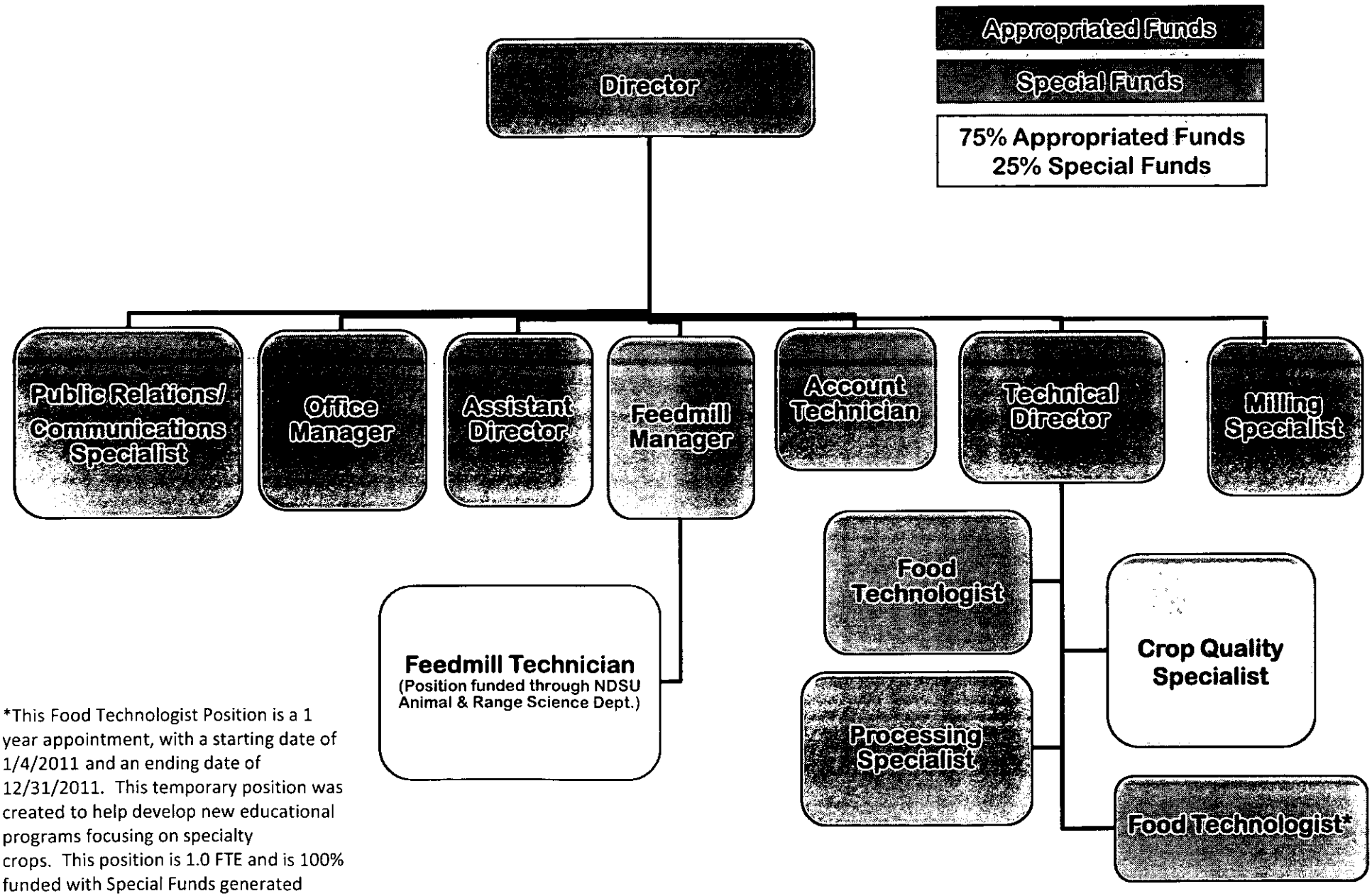
Sally Backman
Update Editor

NDSU is an Equal Opportunity Institution. This publication will be made available in alternative formats upon request (701-231-7736).

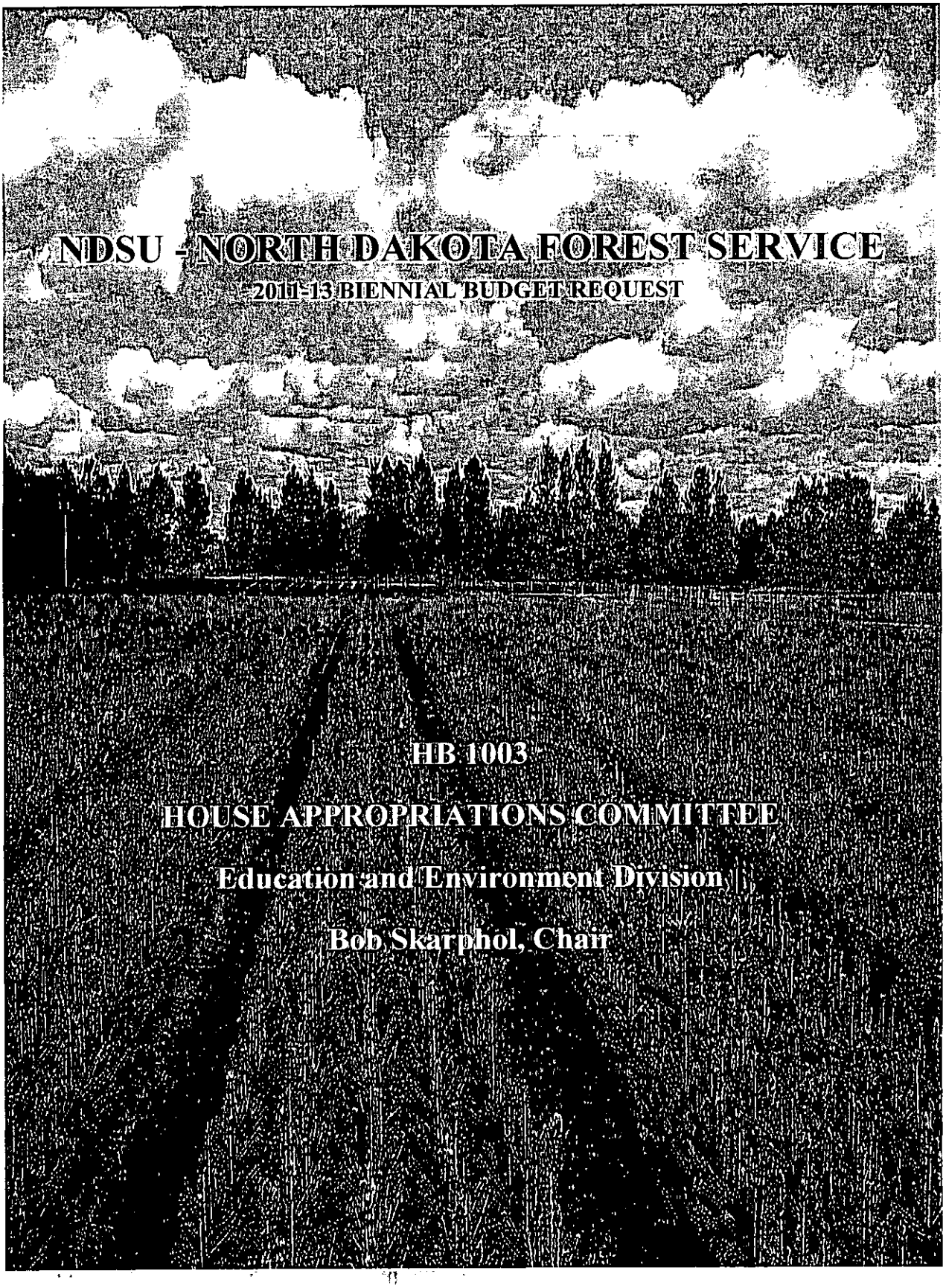
Northern Crops Institute Organizational Chart



*This Food Technologist Position is a 1 year appointment, with a starting date of 1/4/2011 and an ending date of 12/31/2011. This temporary position was created to help develop new educational programs focusing on specialty crops. This position is 1.0 FTE and is 100% funded with Special Funds generated from commodity group grants.

01/28/2011

HB 1020
State Forest Service
1/25/11 attachment #1



NDSU - NORTH DAKOTA FOREST SERVICE

2011-13 BIENNIAL BUDGET REQUEST

HB 1003

HOUSE APPROPRIATIONS COMMITTEE

Education and Environment Division

Bob Skarphol, Chair

LARRY A. KOTCHMAN, STATE FORESTER

TUESDAY, JANUARY 25, 2011

NDSU *North Dakota Forest Service*

2011-2013 Biennial Budget Request

Sustainable Forestry Programs

- Summary of Agency Services
- 2009-2011 Funding
- 2011-2013 Funding Request – HB 1003
- Executive Budget Recommendations
  - Parity
  - Program Enhancement
  - Optional Budget Request
  - 2011-2013 Capital Assets
- 2011-2013 Budget Detail

A Message from the State Forester

NDSU The NDSU-North Dakota Forest Service is organized under the North Dakota Board of Higher Education. The agency is administered by a state forester who reports to the president of North Dakota State University at Fargo, and supports the land grant mission in public service. The mission of the North Dakota Forest Service is to "**care for, protect and improve forest resources to enhance the quality of life for future generations.**"

This 2011-2013 Biennial Budget Request summary is intended to provide the information you need to determine funding levels for forestry programs benefiting communities, fire districts and private forest landowners. Please feel free to contact us at any time if you need additional information.

Larry A. Kotchman, State Forester

CONTACT

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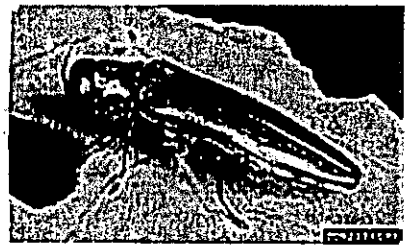
Summary of Agency Services

A wide variety of customers depend on the North Dakota Forest Service for technical, financial and educational forestry assistance. The state forester administers forestry programs serving communities, rural landowners, soil conservation districts, rural fire districts, schools and citizens of North Dakota. All the programs utilize a voluntary, educational and incentives-based approach to address natural resource needs and customer demands.

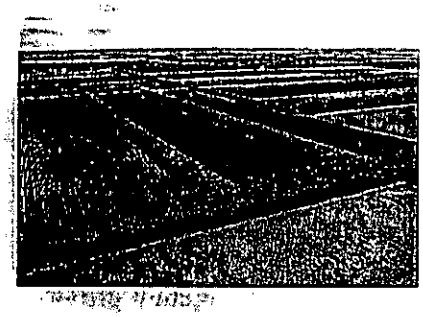
The agency also operates a nursery at Towner specializing in the production of 1.2-million conifer (evergreen) tree stock. The Towner State Nursery is the sole supplier of evergreen seedlings in North Dakota. The agency also owns and manages approximately 13,290 acres of state forest lands.

Community Forestry means conservation activities in city parks, tree-lined streets or other green spaces within the community. Most of North Dakota's residents live in 372 cities and towns. The Community Forestry Program administers financial assistance programs for tree planting and forestry development projects each year. The agency provides technical assistance for tree planting plans, management plans, shade tree ordinances, pest surveys and tree workshops.

Fire Protection ensures the protection of lives, property and natural resources by training, organizing and equipping North Dakota's 376 rural volunteer and 12 career fire departments. A Cooperative Fire Protection Assistance Program provides departments assistance in organizing, training, planning, purchasing or repairing equipment. A companion program, the Federal Excess Personal Property (FEPP) program, loans surplus federal equipment to departments for enhancing firefighting capabilities. Community protection is improved through grants for wildfire hazard mitigation and "FireWise" landscape projects. Fire prevention is stressed through the distribution of Smokey Bear materials.

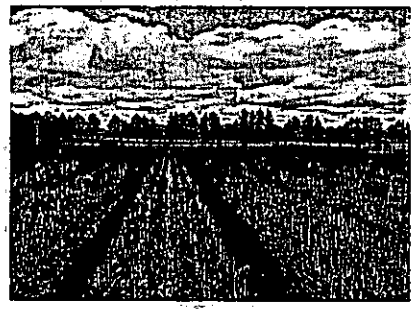


Forest Health ensures the productivity and growth of North Dakota's private, community and state forests. Each year, the North Dakota Forest Service conducts surveys to assess forest health conditions and trains public and private land managers on insect and disease management. North Dakota participates in the Great Plains Tree and Forest Invasives Initiative to identify contingency measures for minimizing the threat of invasive species, such as emerald ash borer.



Forest Stewardship focuses on improving the management of our forest resources by educating and assisting non-industrial private landowners on how to better manage, protect and utilize their native and planted forest resources. This is accomplished through the development of a Forest Stewardship Plan and direct financial assistance for forest improvement practices.

Information and Education offers youth and adults the knowledge and skills they need to make wise decisions about the conservation and wise use of North Dakota's forest resources. The ND Forest Service, in conjunction with the NDSU Extension Forester, sponsors "Project Learning Tree" workshops for teachers and youth leaders working with students in grades K-12. The program also handles the daily requests for forestry information and the publication of educational materials.



Towner State Nursery produces 1.2-million conifer (evergreen) seedlings in over thirty different species and stock types annually for distribution to landowners. The trees are used for farmstead, living snow fence, field windbreaks, wildlife, forestry and other conservation plantings. The nursery is a self-supporting operation, and since 1927 has sold over 80 million trees. The nursery also provides tree improvement services, such as testing, evaluation, selection and development of improved nursery stock for forestry and conservation plantings.

State Forests provide wildlife habitat, clean air and water, recreational opportunities, forest products, scenic beauty and other conservation benefits. The North Dakota Forest Service owns five state forests comprising approximately 13,290 acres. State Forests play an important role in the economic well-being of several rural communities by attracting hunters, hikers, campers, skiers, snowmobilers, tourists and other outdoor enthusiasts.

AGENCY PERFORMANCE MEASURES

The North Dakota Forest Service utilizes an accountability measures process to assess progress toward achieving long-range strategic goals, and ultimately the agency's mission. Accountability measures are linked to the long-range strategic planning process to document North Dakota Forest Service program outcomes. The North Dakota Forest Service developed twelve (12) accountability measures using the State Forester's goals and statutory authority. The State Forester's goals are directly linked to the authority granted under North Dakota Century Code 4-19, 18-10 and 57-57 to meet the forestry needs of the state. Performance indicators, units of measure and program accomplishment data are completed for each of the agency's 12 accountability measures beginning July 1 and ending June 30. A biennial accountability measures report will be prepared by the agency after June 30, 2013. The State Forester's goals and accountability measures are as follows:

State Forester's Goals

1. To positively impact forest-based economic growth and sustainability of communities by promoting the wise use of natural resources.
2. To improve the protection of people, property and natural resources by enhancing interagency cooperation in wildfire management.
3. To support informed decision-making and foster individual responsibility in stewards of all ages by raising public awareness about natural resource values.
4. To meet the forest and conservation tree planting needs of private and public landowners by producing and marketing high quality nursery stock.
5. To meet current societal demands by ensuring the health, productivity and growth of private, community and state forests.

Accountability Measures

1. Five percent (5%) of biomass and wood utilization businesses were assisted in utilizing forest and municipal wood waste for renewable energy resulting in the installation of a biomass heating system demonstration in a public works facility in Bismarck.

2. Forestry-based economic benefits include $1.6 million for forestry practices serving 58% of the financial assistance needs of communities, fire districts and private forest landowners. Practices include tree planting, community forestry development, fire protection and living snow fences.

3. Enhanced community wildfire protection resulted in the preparation of 17 County Wildfire Protection Plans encompassing 32% of North Dakota's counties.

4. Rural fire department capacity was enhanced through wildland firefighter training provided to 228 or 57% of rural fire departments.

5. Wildland fire awareness and prevention programs, including firewise concepts, were provided to 53 or 100% of North Dakota's counties.

6. Information and Education raised public awareness and fostered individual responsibility for conserving forest resources by delivering environmental education to 1,201 K-12 teachers (18%) and 35,596 K-12 students (35%).

7. Professionalism in the tree care industry was promoted through training provided to 82 arborists (36%) certified according to International Society of Arboriculture standards.

8. Conservation tree planting needs from 99% of Towner State Nursery customers were supplied through the sale of 1,225,920 nursery seedlings.

9. North Dakota's natural resources are sustained through the active forest management and protection services for 97,699 acres or 22% of privately-owned forest lands.

10. Sustainable community forestry programs, including the planting and care of street and park trees, served 153 or 41% of North Dakota's communities benefiting 80% of the state's residents.

11. The health and sustainability of 373,760 acres of "at risk" forest resources are ensured through continuous surveys for damaging pests and agents.

12. Quality outdoor state forest experiences are provided on 13,290 acres with 2,111 acres or 16% of the state forests under multiple use management.

REDESIGNING THE NORTH DAKOTA FOREST SERVICE

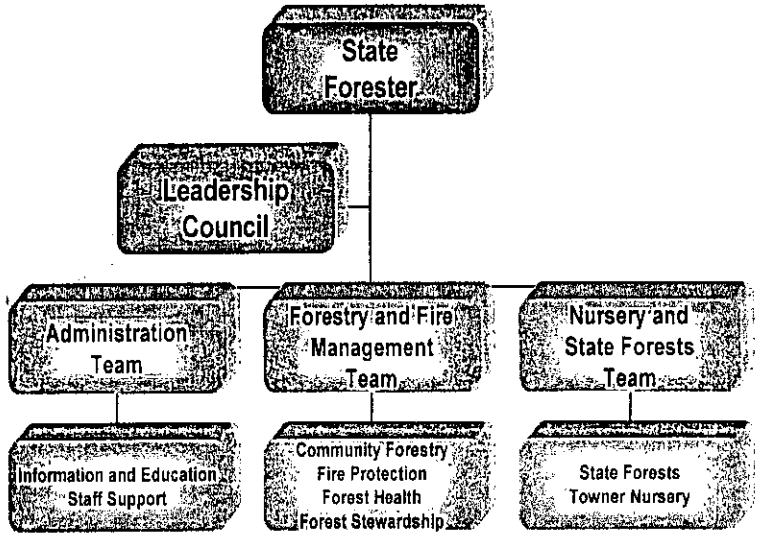
The North Dakota Forest Service recently redesigned its organizational structure to increase program efficiencies, strengthen customer service, promote teamwork and encourage collaboration to address emerging natural resource issues.

The vision "***to ensure the relevancy and competitiveness of North Dakota to enhance public benefits from trees, forests and natural resources***" is guiding the agency's restructuring.

The new organization structure created three leadership teams:

(a) Administration
(b) Forestry and Fire
(c) Nursery and State Forests

A Leadership Council advises the State Forester on the management of the agency.

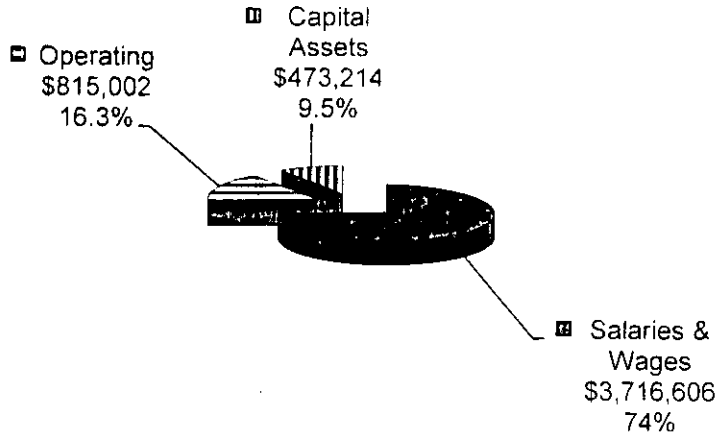


The "redesigned" structure provides a unified team approach to ensure a coordinated focus toward the delivery of services and collaboration across organization boundaries. Teams composed of organizational unit representatives address issues brought to the Leadership Council. Teams deal with customer service improvements, communications, program efficiencies and joint partnership initiatives. Teams are responsible for focusing leadership and resources on landscape level natural resource issues. Teams are organized and monitored by the Council to ensure they fulfill the needs of the project and meet the goals of the agency.

Successful collaboration projects made possible by the redesign include the "Cooperative Conservation Partnership Initiative." Sponsored by state forestry agencies in North Dakota, South Dakota, Nebraska and Kansas, this project is responsible for increasing landowner participation in USDA Natural Resources Conservation Service programs aimed at renovating shelterbelts and restoring streamside forests. These high priority needs were identified in the ***North Dakota Statewide Assessment of Forest Resources and Forestry Resource Strategy.***

2009-2011 Funding Appropriation

The 2009-2011 appropriated budget for the North Dakota Forest Service is $5,004,822, including $4,531,608 for Operations and $473,214 for Capital Assets. The General Fund appropriation is $3,855,768. Other funds are $1,149,054.



The 2009-2011 operations budget includes salaries and wages and operating expenses for 26 FTE and 45 seasonal positions that provide public forestry services.

- Operations
  - Salaries and Wages $3,716,606
  - Operating 815,002

  Total $4,531,608

The 2009-2011 capital assets budget provides necessary repairs for 41 office, shop, storage and recreational buildings at Bottineau, Lisbon, Towner and Walhalla. The budget includes one capital project, extraordinary repairs and deferred maintenance.

- Capital Assets
  - Greenhouse – Towner State Nursery $391,000
  - Extraordinary Repairs – Lisbon and Bottineau field offices 36,638
  - Deferred maintenance (one-time funds) – Walhalla field office 45,576

  Total $473,214

Total 2009-2011 Appropriation (General funds and other funds)..... $5,004,822

NORTH DAKOTA FOREST SERVICE
OMB 2009-2011 Appropriation Status Report
As of 11/30/10

	Original Appropriation	Current Appropriation	Expenditures Through 11/30/2010	Remaining Appropriation	Percent Remaining
Line Item					
Operations	4,471,040	4,531,608	2,672,333	1,859,275	41%
Capital Assets	336,638	427,638	235,553	192,085	45%
Deferred Maintenance	45,576	45,576	0	45,576	100%
Total	4,853,254	5,004,822	2,907,886	2,096,936	42%
Funding Source					
General Funds	3,855,768	3,855,768	2,328,809	1,526,959	40%
Federal Funds	0	0	0	0	0%
Special Funds	997,486	1,149,054	579,077	569,977	50%
Total	4,853,254	5,004,822	2,907,886	2,096,936	42%

As of November 30, 2010, approximately 41% of the operations budget, 45% of the capital assets budget and 100% of the deferred maintenance budget remain and have not been expended.

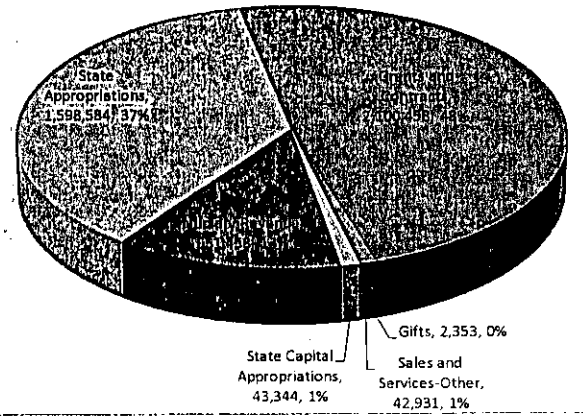
NORTH DAKOTA FOREST SERVICE
Status of 2009- 2011
Extraordinary Repairs, Deferred Maintenance & Capital Projects

	Revised Budget 2009-11	Actual Expenses As Of 11/30/10	Balance	% Remaining
Extraordinary Repairs				
Misc. Small Projects < $50,000	36,638	25,576	11,062	
Total Extraordinary Repairs	36,638	25,576	11,062	30.19%
Deferred Maintenance				
Building Exterior	45,576	13,968	31,608	
Total Deferred Maintenance	45,576	13,968	31,608	69.35%
Capital Projects				
Greenhouse - Towner State Nursery	391,000	270,941	120,059	
Total Capital Projects	391,000	270,941	120,059	30.71%
Total Capital Assets	473,214	310,485	162,729	34.39%
Sources of Capital Funding				
General Fund	382,214	310,485	71,729	18.77%
Oil Trust Fund	0	0	0	0.00%
Special Funds	91,000	0	91,000	100.00%
Total Funding Sources	473,214	310,485	162,729	34.39%

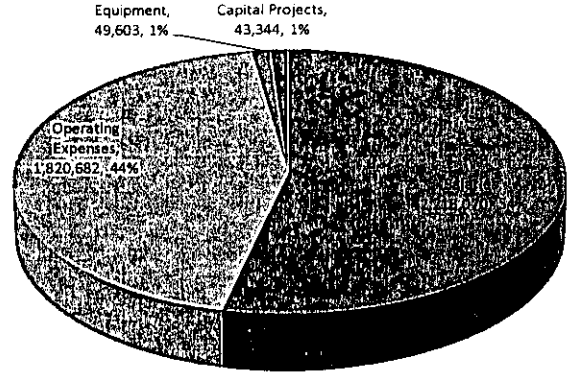
NORTH DAKOTA FOREST SERVICE
FY 2010 REVENUE AND EXPENSES

Revenues		
Nursery Revenue	551,458	13%
State Appropriations	1,598,584	37%
Grants and Contracts	2,100,458	48%
Gifts	2,353	0%
Sales and Services-Other	42,931	1%
State Capital Appropriations	43,344	1%
Total	$4,339,128	100%
Expenses		
Salaries	2,218,070	54%
Operating Expenses	1,820,682	44%
Equipment	49,603	1%
Capital Projects	43,344	1%
Total	$4,131,699	100%

NORTH DAKOTA FOREST SERVICE
FY2010 REVENUES



NORTH DAKOTA FOREST SERVICE
FY2010 EXPENDITURES



North Dakota Forest Service

Comparison of FY2010 Budget to Actual for F.Y.ending 6-30-10	*FY2010 Operating Budget*				
FY2010 General Appropriation & Appro Revenue	**Personnel**	**Operating**	**Equipment**	**Capital Assets**	**Total Budget**
Public Service	1,824,860	407,501			2,232,361
					-
					-
SUBTOTAL	1,824,860	407,501	-	-	2,232,361
					-
					-
Total Appropriation (GF and Other Revenue) for F.Y.10	1,824,860	407,501	-	-	2,232,361
Actual Expenditures to Date, thru 6/30/2010	1,736,862	309,710	-		2,046,572
Remaining F.Y.10 Balance	87,998	97,791	-	-	185,789

Comparison of FY2011 Budget to Actual through (most recent date available)	*FY2011 Operating Budget*				
FY2011 General Appropriation & Appro Revenue	**Personnel**	**Operating**	**Equipment**	**Capital Assets**	**Total Budget**
Public Service	1,979,744	505,292			2,485,036
					-
					-
SUBTOTAL	1,979,744	505,292	-	-	2,485,036
					-
					-
Total Appropriation (GF and Other Revenue) for F.Y.11	1,979,744	505,292	-	-	2,485,036
Actual Expenditures to Date, thru 11/30/2010	822,440	155,751			978,191
Remaining F.Y.11 Balance	1,157,304	349,541	-	-	1,506,845

2009-11 Capital Assets Appropriation					
Deferred Maintenance 09-11 (Line 54)				45,576	45,576
Capital Assets (Line 50)				427,638	427,638
Capital Assets Carryover (Line 51)				-	-
Total Capital Assets (Inc. Major Capital Projects)	-	-	-	473,214	473,214
Actual Expenditures, 7/1/2009-6/30/2010				43,344	43,344
Remaining 2009-11 Balance as of 6/30/2010	-	-	-	429,870	429,870
Actual Expenditures 7/1/2010-11/30/2010				267,141	267,141
Remaining 2009-11 Balance as of 11/30/2010	-	-	-	162,729	162,729

North Dakota Forest Service

Comparison of FY2010 Budget to Actual for F.Y. ending 6-30-10	FY2010 Operating Budget				
FY 2010 Nonappropriated Budget	Personnel	Operating	Equipment	Capital Assets	Total Budget
Grants and Contracts	542,772	2,353,024	-		2,895,796
Auxiliary Sales and Services	-	-	-		-
Other Nonappropriated Funds*	-	32,100	-		32,100
Total Nonappropriated Budget for F.Y.10	542,772	2,385,124	-	-	2,927,896
Actual Expenditures thru 6/30/2010	481,208	1,510,972	49,603		2,041,783
Remaining F.Y.10 Balance	61,564	874,152	(49,603)	-	886,113

*Examples of other nonappropriated funds include sales and services of educational activities, such as camps, clinics and workshops; fees; interest income; internal service centers, etc.

Comparison of FY2011 Budget to Actual through 11-30-10	FY2011 Operating Budget				
FY 2011 Nonappropriated Budget	Personnel	Operating	Equipment	Capital Assets	Total Budget
Grants and Contracts	542,772	2,362,997			2,905,769
Auxiliary Sales and Services	-	-			-
Other Nonappropriated Funds	-	32,100			32,100
Total Nonappropriated Budget for F.Y.11	542,772	2,395,097	-	-	2,937,869
Actual Expenditures thru 11/30/2010	312,322	292,460			604,782
Remaining F.Y.11 Balance	230,450	2,102,637	-	-	2,333,087

2009-11 Nonappropriated Capital Assets					
Deferred Maintenance 09-11 (Line 54)					-
Capital Assets (Line 50)					-
Capital Assets Carryover (Line 51)					-
Total Capital Assets (incl Major Capital Projects)	-	-	-	-	-
Actual Expenditures, 7/1/2009-6/30/2010					-
Remaining 2009-11 Balance as of 6/30/2010	-	-	-	-	-
Actual Expenditures 7/1/2010-11/30/2010					-
Remaining 2009-11 Balance as of 11/30/2010	-	-	-	-	-

2011-2013 Funding Request – HB 1003

The 2011-2013 funding request for the North Dakota Forest Service in HB 1003 is $5,209,958, including $5,112,167 for Operations and $97,791 for Capital Assets. The General Fund request is $4,212,472. Other funds are $997,486.

The 2011-2013 operations budget includes salaries and wages and operating expenses for 26 FTE and 45 seasonal positions that provide public forestry services.

- Operations.....$5,112,167

The 2011-2013 capital assets budget provides necessary repairs for 41 office, shop, storage and recreational buildings at Bottineau, Lisbon, Towner and Walhalla. The budget includes extraordinary repairs and equipment over $5,000.

- Capital Assets $97,791

Total Forest Service Request HB 1003 (General funds and other funds) $5,209,958

Executive Budget Recommendations

Provides an increase of $254,524 for parity, which includes a 3 percent annual salary increase, actual health insurance premium increases, and inflationary adjustments for building utilities.

Authorizes $175,510 for program enhancements to address critical natural resource issues identified in the recently completed statewide assessment.

Provides $17,341 for employee retirement contributions.

Approves $4,905 to fund extraordinary repairs at 15 percent of the OMB formula.

Approves one-time funding of $250,000 to assist communities with removal and replacement of trees destroyed by emerald ash borer, based on 1:1 community match.

ND Forest Service
Comparison of SBHE General Fund Revised Request
And Executive Recommendation

	ND Forest Service		
	SBHE 2009-11 Prioritized GF Revised Request	Executive Recommendation	Executive Recommendation Over (Under) Budget Request
2009-11 Adjusted General Fund Appropriation	**$ 3,855,768**	**$ 3,855,768**	**$ -**
Base Adjustments	**(345,576)**	**(345,576)**	**-**
2009-11 Adjusted General Fund Appropriation, Net of Base Adjustments	**3,510,192**	**3,510,192**	**-**
Prioritized SBHE Needs Based Request:			
Parity	359,844	254,524	(105,320)
Program Enhancement-10% base funding increase	351,019	175,510	(175,509)
Employee Retirement Contributions	17,623	17,341	(282)
Facility and Infrastructure Regular Repair and Maintenance	-	4,905	4,905
Total Requested Increase in GF Base Funding	728,486	452,280	(276,206)
Total Base General Fund Request & Recommendation	**4,238,678**	**3,962,472**	**(276,206)**
One-time Budget Requests:			
State Forest Service-Emerald Ash Borer	500,000	250,000	(250,000)
Total One-time Budget Request & Recommendation	**500,000**	**250,000**	**(250,000)**
2011-13 State-funded Projects	**550,000**	**-**	**(550,000)**
Total 2011-13 General Fund Request & Recommendation	**$ 5,288,678**	**$ 4,212,472**	**$ (1,076,206)**

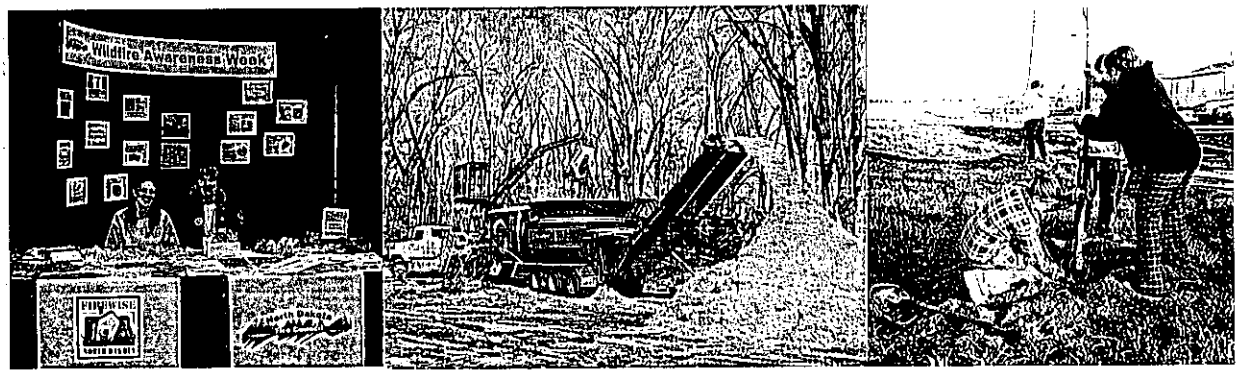
2011-2013 Funding Request

Total 2011-13 Base Funding Increase	**$447,375**
Budget Categories	
Parity	$254,524
Employee Retirement Contribution	$ 17,341
Program Enhancements	$175,510

The total requested base budget increase included in the Executive Recommendations (HB 1003) for the Forest Service is $447,375. The funding supports public forestry services provided by the North Dakota Forest Service through field offices at Bismarck, Bottineau, Carrington, Fargo, Lisbon, Towner and Walhalla.

Parity - $254,524

The Executive Recommendations (HB 1003) request a $254,524 parity increase for the Forest Service, including $74,422 for costs-to-continue the FY 2011 legislatively funded salary increases; $142,063 for a 2011-13 salary increase of an average 3.0% per year; and $38,039 for 2011-13 health insurance premium increases.



Employee Retirement Contribution - $17,341

The Executive Recommendations (HB 1003) provide $17,341 for an employee retirement contribution increase in the Forest Service base budget.

Program Enhancements - $175,510

The Executive Recommendations (HB 1003) include a $175,510 program enhancement increase in the Forest Service base funding to address future critical natural resource issues identified in the ***North Dakota Statewide Assessment of Forest Resources and Forest Resource Strategy*** completed on June 18, 2010. The assessment and strategy provide a long-term, comprehensive plan for sustaining North Dakota's forest resources. Threats to forest resources in North Dakota include invasive (insects and pathogens) tree pests; over-maturity and limited natural regeneration of forest resources; lack of tree species diversity and vulnerability to damaging agents; lack of education outreach; conversion from historic vegetation types; wildfire; limited wood utilization opportunities; and climate change. Local, state, federal, and tribal partners identified invasive forest insects and pathogens, communities at risk from wildfire, and riparian (streamside) forest restoration as critical natural resource management issues.

The enhancement will be used to fund $119,262 in salaries, fringes and operating expenses for public forestry services identified in the statewide assessment, including rising tree production costs at Towner State Nursery. The enhancement will also fund $56,248 for the replacement of specialized forestry equipment at Towner State Nursery and the Bottineau field office. This enhancement will benefit communities, fire districts and private forest landowners through key programs, including Community Forestry, Fire Management, Forest Health and Forest Stewardship. The Forest Service requested a total of $351,019 in program enhancement funds for organizational capacity measures to increase program efficiencies, strengthen customer service, promote teamwork and allow flexibility to address emerging natural resource issues.

2011-2013 Optional Budget Request

One-Time Critical Issue Funding Request – Emerald Ash Borer Mitigation

The Executive Recommendations (HB 1003) provide $250,000 in one-time optional funding for the North Dakota Forest Service to help North Dakota communities prepare for the arrival of the emerald ash borer (EAB). The emerald ash borer is a highly invasive, exotic insect that attacks and kills all species of North American ash trees (green, white, black and blue ash). The Forest Service requested $500,000 to assist communities with tree removal and replacement on a 1:1 match.

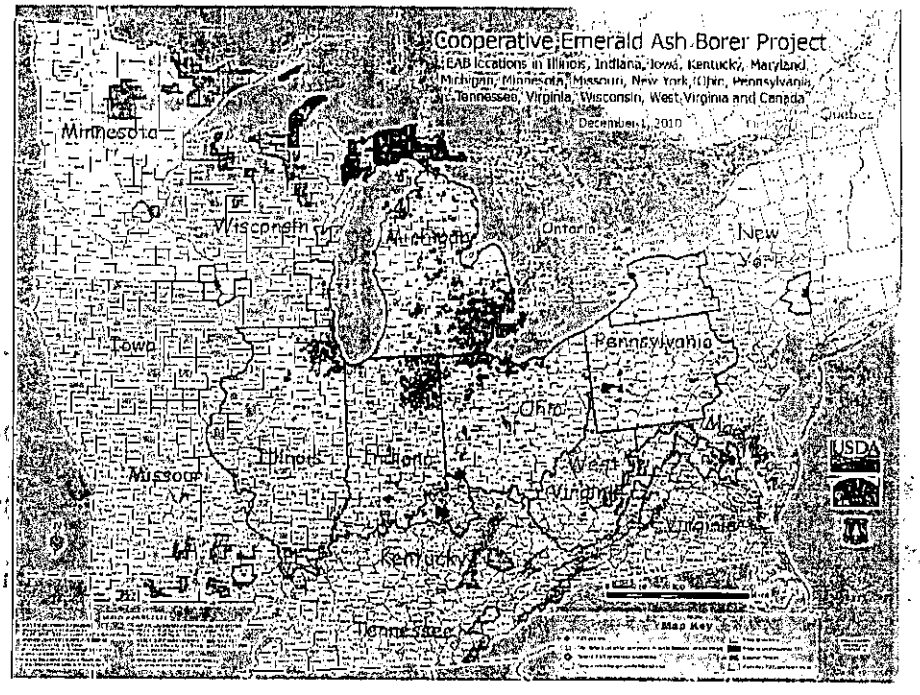
North Dakota is estimated to have 78 million ash trees. Ash is the most common tree planted in communities, reaching 60% of the tree population in some towns. Green ash represents a large percentage of the state's 55,000 miles of field and farmstead windbreaks. Costs of removing, disposing and replacing community trees lost to EAB can average $600-$800 per tree. In the City of Bismarck alone, it would cost $5.2 million to remove dead ash trees and replant. Coupled with the economic benefits associated with trees lost to EAB, such as reduced energy costs and ecosystem services, the insect's impact could far exceed $1 billion dollars in North Dakota.

Be Alert to Emerald Ash Borer!

When emerald ash borer arrives in North Dakota, it is anticipated that communities may request more than $1 million each year in financial assistance from the North Dakota Forest Service to remove dying street trees and replant with a diversity of new species. Communities are already removing declining ash and replanting to spread out the impact costs.

The North Dakota Forest Service established a Community Forestry Challenge Grant Program when the 1990 Farm Bill created an Urban and Community Forestry Program administered by the U.S. Forest Service. Since 1991, the North Dakota Forest Service has passed through $962,355 in federal funds for 370 community tree planting and tree care projects totaling over $2,755,706. Unfortunately, declining federal funding eliminated this program for North Dakota in federal fiscal year 2007. This one-time funding for Emerald Ash Borer Mitigation would reinstate this Community Forestry Challenge Grant Program.

The state forestry agencies in Kansas, Nebraska, North Dakota and South Dakota have worked together effectively since 2008 on a multi-state proactive response plan called the ***Great Plains Tree and Forest Invasives Initiative***. The joint initiative among state forestry agencies, universities and departments of agriculture is the first of its kind to coordinate efforts on combating invasive tree pests across the northern Great Plains. The agencies developed the ***Great Plains Initiative Readiness and Response Plan for Emerald Ash Borer*** resulting in expanded networking, more efficient programming, sharing of expertise, and consistent messaging to slow the spread of emerald ash borer. Accomplishments include an inventory of rural and community tree resource conditions, coordinated education outreach to increase public awareness, improved monitoring and detection strategies, and the development of wood utilization opportunities for trees killed when EAB is confirmed in the region.



Since its introduction from China in the early 1990s, emerald ash borer has killed more than 50 million trees in Illinois, Indiana, Iowa, Kentucky, Maryland, Michigan, Minnesota, Missouri, New York, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, Wisconsin and the Canadian provinces of Ontario and Quebec. Now found in Minnesota, the insect is likely to arrive somewhere in North Dakota in the next few years. Significant financial resources will be required to delineate and manage insect infestations in order to slow their spread and mitigate their impacts on forest resources, and state and local budgets.

2011-2013 Capital Assets

Extraordinary Repairs and Equipment

The Executive Recommendations (HB 1003) include $97,791 for extraordinary repairs and equipment for the Forest Service. The Forest Service is responsible for maintaining buildings and facilities at five locations. Buildings at Bottineau, Lisbon and Walhalla deliver forestry services while the Towner State Nursery provides tree seedlings to the citizens of North Dakota. Recreational and storage buildings are also located on the State Forests. Capital assets consist of 41 office, shop and storage buildings. The OMB repair formula generates a total of $276,951 for Forest Service buildings and infrastructure.

Extraordinary repairs include miscellaneous small projects at field offices at Lisbon and Towner. Repairs include energy efficient improvements at the Lisbon office, shop and storage buildings. Repairs at Towner State Nursery include siding, shingles and windows for the irrigation building.

Extraordinary Repairs	**$41,543**
Lisbon Field Office – energy efficient improvements Towner State Nursery – siding, shingles and windows for irrigation building.	
Equipment	**$56,248**
Tractor, flex wing mower and snowmobile	
Total	**$97,791**

The Forest Service Facility Master Plan identifies $307,700 in plant improvement needs at its Bottineau, Lisbon and Walhalla field offices, state forests and Towner State Nursery. The improvements include deferred maintenance ($94,700), extraordinary repairs ($132,500) and ADA/safety projects ($80,500).

The agency's base funding for extraordinary repairs is $36,638 which represents 13.2% of the OMB building and infrastructure formulas. The Executive Recommendations (HB 1003) approve a $4,905 increase to fund extraordinary repairs at fifteen percent (15%) of the OMB formula. Fifteen percent (15%) of the OMB formulas provides the Forest Service $41,543 for extraordinary repairs. The Executive Recommendations also approve $56,248 for equipment needs at Towner State Nursery and the Bottineau Field Office included in the Forest Service program enhancement request.

2011-2013 Capital Assets

Capital Project Request - Nursery Freezer Conversion/New Building

Nursery Freezer Conversion/New Building – Towner State Nursery $550,000	
Total Project Costs	$550,000
Funding Source	General Fund
SBHE Policy 902.1 Criteria	Conversion of an existing building and new construction will expand space for trees, equipment and supplies. Project will consolidate services and enhance operating efficiencies. Project would also meet life, health and safety requirements to comply with local, state and federal law requirements.

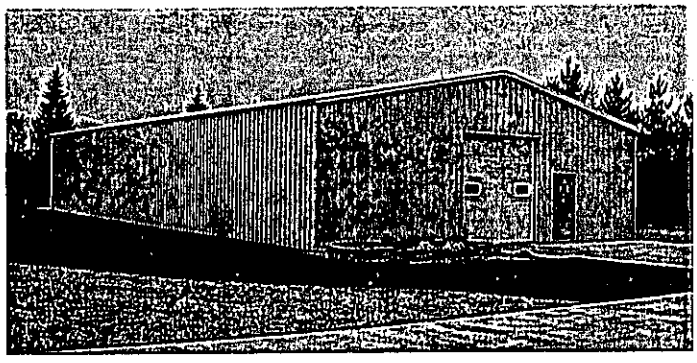
The NDSU-North Dakota Forest Service capital project request includes $550,000 for a Nursery Freezer Conversion/New Building at Towner State Nursery. The Forest Service owns and operates the 160-acre nursery specializing in the production of bare-root and container seedlings to meet the conservation tree planting needs of the state. Each spring, the nursery lifts over one million bare-root tree seedlings, but lacks adequate storage for the seedlings. Tests at the nursery have continuously proven that freezer storage provides equal or better survival than spring lifting for some species. Conversion of an equipment storage building to a freezer storage unit would allow the nursery to switch lifting and packaging from spring to fall. This would result in an earlier seedling harvest and improve seedling quality and performance. It would also increase production, improve species availability, and allow for earlier transplanting.

Capital Projects include $550,000 for a Nursery Freezer Conversion/New Building at Towner State Nursery. The project addresses critical freezer storage for tree seedlings, replaces equipment storage space and provides a heated shop. Conversion of an equipment storage building to a freezer storage unit would increase storage capacity from 120,000 to 250,000 trees and allow early spring shipment of seedlings to meet customer demands. It would also increase production, improve species availability and enhance seedling quality.

The project involves the conversion of an existing 50 x 100 foot equipment storage building to a freezer storage building and the construction of a new storage building. The conversion of the existing building requires installation of compressor freezer units at a cost of $100,000. The existing building is in excellent condition, insulated and has a finished interior. Construction of a new steel building will replace storage space that was eliminated with the conversion of the existing building. Critical storage is needed for equipment, packaging supplies and fertilizer. In addition, the new construction will provide a heated shop. The steel building will be 50 feet wide and 150 feet long with a concrete floor. Specifics of new construction include: steel building with concrete floor and heated shop - $380,000; architectural services - $50,000; and forklift driveways for access - $20,000.

The Towner State Nursery freezer storage building and new storage building is a high priority in the agency's facilities master plan and meets a compelling tree production justification. This project will expand storage space for trees, equipment and supplies. It fosters the consolidation of services and enhances operating efficiencies. Tree storage expansion would spread out the workload and reduce current labor shortage problems. These improvements would meet customer needs for earlier spring delivery and enhance tree production options by allowing more spring transplanting at the nursery. This is part of the mechanization plan for tree production at Towner State Nursery.

The Executive Recommendations (HB 1003) do not provide any funds for this Forest Service capital project request.



NORTH DAKOTA FOREST SERVICE
2011-2013 Budget Request
GENERAL FUND AND OTHER APPROPRIATED

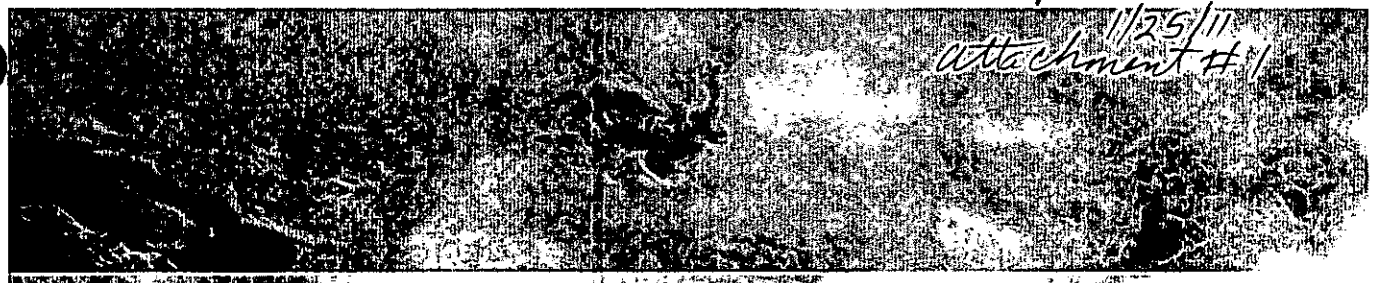
BASE BUDGET:	Operating	Capital Assets	Total	Gen Fund	Other Funds	Total Funds
2009-11 Appropriation Budget						
Operations	4,531,608	-	4,531,608	3,473,554	1,058,054	4,531,608
Capital Assets	-	473,214	473,214	382,214	91,000	473,214
Total 2009-11 Appropriation			5,004,822	3,855,768	1,149,054	5,004,822
Less One-Time Allocations:						
Towner Nursery	(60,568)	-	(60,568)	-	(60,568)	(60,568)
Deferred Maintenance	-	(45,576)	(45,576)	(45,576)	-	(45,576)
Capital Projects	-	(427,638)	(427,638)	(336,638)	(91,000)	(427,638)
Total Adjusted 2009-11 Budget Base Budget	4,471,040	-	4,471,040	3,473,554	997,486	4,471,040
Add: Base Budget Budget Changes - Operating						
Parity						
Continue 2010-11 Salary Increase	74,422	-	74,422	74,422	-	74,422
Adjusted Health Insurance Increases	38,039	-	38,039	38,039	-	38,039
Operating Inflation (2.1% for FY12 & 2.0% for FY13)	33,233	-	33,233	33,233	-	33,233
Salary Increases (4.5% & 4.5%)	214,150	-	214,150	214,150	-	214,150
Program Enhancement	238,524	-	238,524	238,524	-	238,524
Employee Retirement Contribution Increase	17,623	-	17,623	17,623	-	17,623
Total Base Budget Budget Changes - Operating	615,991	-	615,991	615,991	-	615,991
Add: Capital Assets						
Capital Project 2011-13	-	550,000	550,000	550,000	-	550,000
Program Enhancement (equipment over $5k)	-	112,495	112,495	112,495	-	112,495
Extraordinary Repairs	-	36,638	36,638	36,638	-	36,638
Total Base Budget Budget Changes - Capital Assets	-	699,133	699,133	699,133	-	699,133
TOTAL 2011-13 BASE BUDGET REQUEST	5,087,031	699,133	5,786,164	4,788,678	997,486	5,786,164
OPTIONAL BUDGET						
Emerald Ash Borer Mitigation	500,000		500,000	500,000	-	500,000
TOTAL 2011-13 BUDGET REQUEST	5,587,031	699,133	6,286,164	5,288,678	997,486	6,286,164
Executive Recommendation						
Operating Inflation (0%)	(33,233)		(33,233)	(33,233)	-	(33,233)
Salary Increases (3% per yr)	(72,087)		(72,087)	(72,087)	-	(72,087)
Program Enhancement	(119,262)	(56,247)	(175,509)	(175,509)	-	(175,509)
Employee Retirement Contributions	(282)	-	(282)	(282)	-	(282)
Major Capital Projects	-	(550,000)	(550,000)	(550,000)	-	(550,000)
Extraordinary Repairs		4,905	4,905	4,905	-	4,905
Emerald Ash Borer Mitigation	(250,000)	-	(250,000)	(250,000)	-	(250,000)
Exec. Recommend Over (Under) Budget Request	(474,864)	(601,342)	(1,076,206)	(1,076,206)	-	(1,076,206)
Total 2011-13 Budget Executive Recommendation	5,112,167	97,791	5,209,958	4,212,472	997,486	5,209,958

NORTH DAKOTA FOREST SERVICE
2011-13 Extraordinary Repairs and Capital Projects

2011-13 Budget Request	
Extraordinary Repairs	36,638
Capital Project - Nursery Freezer Conversion/New Bldg	550,000
Total 2011-13 Capital Assets Request	586,638
Funding Sources	
General Fund	586,638
Other Funds	0
Total 2011-13 Capital Assets Funding Sources	586,638
2011-13 Executive Recommendation	
Capital Project - Nursery Freezer Conversion/New Bldg	-550,000
Extraordinary Repairs	4,905
Total 2009-11 Executive Recommendation	545,095
Funding Sources	
General Fund	41,543
Other Funds	0
Total 2011-13 Capital Assets Funding Sources	41,543

Extraordinary Repair Projects	
Misc. Small Projects less than $50,000	41,543
Mechanical and Electrical Upgrades	0
Utilities and Infrastructure	0
Building Exterior	0
Structural Repairs	0
Total Extraordinary Repairs Projects	41,543

HB 1020
Upper Great plains
transportation Institution
1/25/11
Attachment #1



NORTH DAKOTA STATE UNIVERSITY

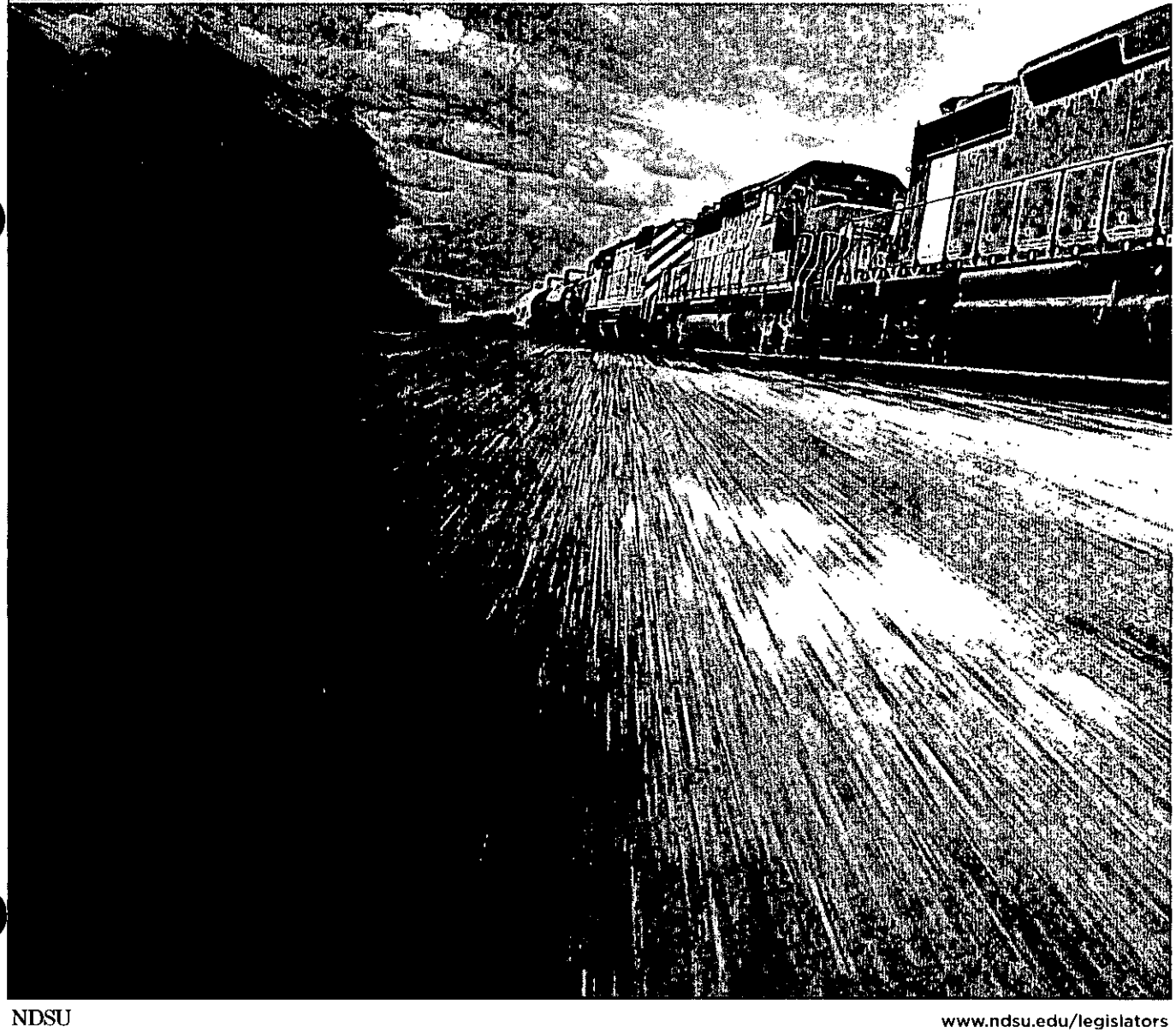
HOUSE EDUCATION AND ENVIRONMENT DIVISION

REPRESENTATIVE BOB SKARPHOL, CHAIRMAN

HB 1020 UPPER GREAT PLAINS TRANSPORTATION INSTITUTE - AGENCY 627

GENE GRIFFIN, DIRECTOR

TUESDAY, JAN. 25, 2011



The UGPTI would like to include in its testimony for HB 1020 the following statement as required by Section 2 of SB2020:

Use of one-time funding received in 09-11:

In 2009, the North Dakota Legislature authorized the expenditure of $3 million for construction of the Center for Transportation Studies under SB2020. No state funds were appropriated for this project. This authorization was requested in anticipation that federal funding might be made available for the construction of the center. NDSU and the Upper Great Plains Transportation Institute were not awarded federal funding for this project and consequently no expenditures for construction have occurred under the 2009 authorization.

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Upper Great Plains Transportation Institute
North Dakota State University

Vision: Excel as one of the premiere university transportation centers in the United States.

The Legislature created the Institute as part of NDSU in 1967 because of the critical role that the mobility of freight and people plays in an advanced society. Virtually all the important elements of society are dependent on an efficient and effective transportation system:

- ✓ Education
- ✓ Health care
- ✓ Emergency services
- ✓ Agriculture
- ✓ Energy
- ✓ Manufacturing
- ✓ Service industry
- ✓ Recreation
- ✓ Global economy
- ✓ Domestic competition

. . . and the list goes on. It is doubly important for North Dakota because of our location and the nature of our economy; most of our commodities and manufactured goods are shipped out of the state and most inputs have to be shipped in from around the world. The key role that transportation plays in society is why it has a cabinet position in the U.S. executive branch why every state has a transportation department, and why a primary function of cities and counties is to provide transportation infrastructure. One of the challenges in developing and operating a transportation system is complacency as demands grow and as the system deteriorates. People tend to take it for granted. There are many other challenges that are involved in planning, developing, maintaining and operating a transportation system. These challenges are increasing in complexity as the field adopts more technology and linkages become more complex logistically. What's more, a convergence of transportation and communications is creating opportunities as well as challenges. It is impossible to separate the two. The institute was created to develop the knowledge and human capital to assist the private and public sector face these challenges.

Mission: The Upper Great Plains Transportation Institute develops future transportation practitioners and leaders; enhances the quality of life and economic opportunity for individuals; improves the economic viability and global competitiveness of businesses; and reduces transportation's environmental impact by improving the mobility of freight and people through research, education and outreach.

Research and Outreach Programs

- Advanced Traffic Analysis Center (ATAC)
- Agricultural, Energy, and Industrial Freight Center
- Department of Transportation Support Center (DOTSC)
- Mountain-Plains Consortium (MPC)
- North Dakota Local Technical Assistance Program (NDLTAP)
- Rural Transportation Safety and Security Center (RTSSC)

- Small Urban & Rural Transit Center (SURTC)
- Transportation Learning Network (TLN)
- Transportation Safety Systems Center (TSSC)

Academic Programs

- Ph.D. in Transportation and Logistics
- Masters of Managerial Logistics
- Masters of Transportation and Urban Systems
- Transportation Leadership Graduate Certificate

Upper Great Plains Transportation Institute at a Glance

9	Established program areas
18	Number of states where Small Urban & Rural Transit Center staff taught 6 three-day courses, 21 workshops/training sessions, and 18 individual presentations. In addition the staff provided training to dozens of bus drivers in North Dakota and South Dakota.
21	Number of classes offered in the past year and attended by 238 students.
25	Research publications published in 2009/2010 in addition to several refereed journal papers
47	Total number of graduate students enrolled in transportation-related programs, including 24 Ph.D. students; 16 masters students in the transportation option programs in agribusiness and applied economics and civil engineering; 5 in the Masters of Managerial Logistics Program; and 2 in the Masters of Transportation and Urban Systems Program.
138	Current UGPTI employees including 52 full-time staff members, 21 part-time employees, 39 undergraduate student employees and 26 graduate student employees.
510	Number of people who attended and provided input during NDDOT Transportation Public Input meetings hosted and facilitated by the UGPTI in 2010.
2,713	Practicing professionals who attended seminars, workshops and short courses offered via the Transportation Learning Network in FY 2009. During that time period, TLN held 67 training events for a total of 15,811 participant hours. Most participants were from DOTs in ND, MT, WY and some programming was extended to professionals in SD and MN as well.
7,275	Number of participant hours devoted to 33 North Dakota Local Technical Assistance Program training sessions in FY 2009. There were 33 sessions offered to more than 1,427 workers in state, local and private agencies.

UGPTI Future Directions 2011-2013

Ensure that the UTCP is re-authorized: The University Transportation Centers Program has played a critical role in the development of the Institute's program over the past 20 years. It is important to do whatever is possible to ensure that the program is continued in the transportation bill that will be considered by Congress this year.

Reauthorize SURTC and RTSSC: The Small Urban & Rural Transit Center and the Rural Transportation Safety and Security Center, programs which make important contributions to mobility, both were authorized and funded as part of SAFETEA-LU. This law expired September 2009 and every effort will be made to assure these programs are included in the new surface transportation bill.

Successfully re-compete for regional university transportation center: The Mountain-Plains Consortium (MPC), the Region 8 university transportation center sponsored by the U.S. Department of Transportation, is critical to the long run success of the UGPTI. Positioning the Institute and the MPC for winning the competition will be a first-order priority.

Create a new center for transportation applications in sensing, communications and programming: A modern well-managed transportation system will be dependent on sensing the environment and condition of infrastructure and other factors to enhance operations. The same is true of a cutting edge supply chain. The Institute is uniquely positioned to take advantage of the intellectual capital and facilities at NDSU to make advances in this field with the development of SMARTSe (Surface Mobility Applications Real-Time Simulation environments).

Continue to advance the TLN program: The Transportation Learning Network is poised to expand nationally and make even greater contributions to mobility through training for North Dakota and the surrounding region. New programming, more advanced delivery platforms and the latest technology will enhance the abilities of TLN to deliver.

Develop a transportation security and terrorism program: The U.S. transportation system is vulnerable to terrorism in both rural and urban settings. The Institute has a unique opportunity to establish a nationally recognized program. The UGPTI will work with local and state officials to develop a center that will conduct research to identify strategies and educate and train people to recognize weak points and take corrective actions.

Fully develop the Center for Waterway Freight Analysis: The Corps of Engineers has selected four universities to conduct economic analysis and manage waterborne commerce data - Texas A&M, University of Tennessee, Marshall University, and NDSU. The Institute has been assigned the upper Mississippi, Illinois and Columbia waterways, all of which are important to agriculture.

Expand the Advanced Traffic Analysis Center: There is a growing need to apply advanced traffic analysis and management techniques in small- and medium-sized cities so that they can avoid the longer-term problems of congestion and inefficiency. ATAC will adopt a strategy of adding value to these population centers by partnering with other universities, private sector companies and government to strengthen the program on a national basis.

Continue to develop the agricultural transportation research and outreach program: Although individual issues have changed, agricultural transportation issues are as important today as they were 30 years ago. Securing funding to address these issues has been the Institute's greatest challenge. A continued effort will be made to fund USDA's university agricultural transportation research and education program and identify other funding sources.

Improve marketing and partnerships of the transportation education program: Many potential students are not aware of the opportunities to study transportation at the graduate level at NDSU. Additionally, there seems to be a number of potential opportunities to partner with U.S. and foreign universities in transportation education. This effort addresses both of these issues.

Work with the NDSU administration to create a School of Transportation within the University: A school will provide a focal point for administering, managing, and marketing the transportation education program within NDSU. What's more, it will symbolize the importance of mobility to our socioeconomic system, and promote interdisciplinary research projects and programs.

Secure funding for the Center for Transportation Studies building: Institute staff is housed in three separate buildings on the NDSU campus, limiting their ability to collaborate and share resources. Currently we do not have space to resolve this issue. Finding the remaining funds for a transportation center that will allow the UGPTI to add greater value to North Dakota will be of the highest importance. Other than to house the Institute, the transportation building will serve three major purposes:

- Serve as a symbol to show that transportation is equal in its importance to our socio-economic system as other disciplines with dedicated buildings such as engineering, the sciences, the arts, agriculture, etc.
- Provide a physical representation of the recognition of transportation as an accepted interdisciplinary academic field.
- Provide a home for developing the intellectual capital necessary to plan, construct and operate the transportation systems of the 21st century.

Executive Recommendation and Request

Although the executive recommendation for General Funds indicated in the budget summary below will not cover all of the administrative costs of the UGPTI, it will enhance its base budget and improve its ability to compete for contracts and grants. Although additional General Funds would allow the Institute to make an even greater contribution to North Dakota we respectfully request your concurrence with the executive recommendation.

	Base Level Budget	Adjustments	Appropriation
Total All Funds	23,326,992	742,969	24,069,961
Less Estimated Income	21,737,199	413,134	22,150,333
Total General Funds	1,589,793	329,835	1,919,628
Full-time Equivalent Positions	52.3	0	52.3

2009-2011 Highlights

SMARTSe program launched

UGPTI is implementing its Surface Mobility Application Real-Time Simulation environments (SMARTSe) program on the NDSU campus. The NDSU campus, the small urban setting of Fargo and adjacent agricultural and manufacturing corridors provide diverse settings to develop technologies, applications and processes leading to safer and efficient supply chains, infrastructure and vehicles. The SMARTSe network will host emerging sensing, wireless communications, and mobile computing technologies which will feed real-world data into theoretical models, computer simulations and databases. SMARTSe is envisioned as a universally interactive environment between people, vehicles and infrastructure. Applications will be centered on transportation and will include supply chain management and related aspects such as inventory control, automatic vehicle location, cold chain management. Intelligent transportation systems applications will include traffic management, passenger monitoring, bus routing, infrastructure management and data collection and warehousing. NDSU has consented to the use of its campus facilities and corporate partners have already installed equipment across Cass County to provide a communications backbone for this effort. The USDOT Research Innovation Technology Administration has invested $500,000 in SMARTSe, but additional resources are needed for the program to reach its full potential.

TLN Revitalized

Keeping workers and keeping them up to speed and satisfied is difficult for state departments of transportation and other transportation related agencies – especially on the northern plains. Baby boomers are retiring and competition from the oil industry and warmer climates make it tough to hold on to workers. The UGPTI's Transportation Learning Network (TLN) is being revitalized to help DOTs in the region provide high-quality training on key topics at low cost. Established in 1994 as the TEL-8 communications network and using interactive video, the organization was a pioneer in providing distance education in transportation. TLN is again a pioneer in coupling technology like on-line instructional modules and internet video with precisely targeted topics. Learning management technology will assist in delivering training, monitoring learner achievement, and assessing program effectiveness. Alternative training programs will be used to deliver training in ways that work best for content, learners and the agencies. Emphasis will be placed on storing repeatable training for on-demand retrievable use. A system to catalog or access connections to other technical training resources such as NHI and the National Transportation Training Resource database is also being developed. The TLN is an interactive network linking the transportation departments in Montana, North Dakota, and Wyoming and the universities that make up the Mountain-Plains Consortium – North Dakota State University, Colorado State University, South Dakota State University, University of Utah, and the University of Wyoming.

Transportation Security and Counter-Terrorism Center Proposed

Given the critical nature of mobility to our socioeconomic system, protecting the mobility of freight and people is critical to U.S. security. The goal is to develop one of the nation's top academic programs in transportation security and counter-terrorism at NDSU. With a focus on transportation operations and infrastructure, this center would conduct research and outreach on current and future threats; critical vulnerabilities; and existing security protocols. A number of tactical-level efforts have been conducted by government and private industry, but few rigorous, theoretically informed, strategic-level examinations have been conducted. In terrorist attacks, transportation is both the vector and the target. Often vehicles and vessels serve as the means for perpetrating the attack. Also, because of their importance to personal and freight mobility, transportation is often the target. Securing transportation requires not only an understanding of transportation infrastructure and operations, but an understanding of perpetrators as well. This program will seek to develop a synergistic approach that will enhance the ability of both public and private sector entities charged with protecting transportation systems and infrastructure.

Creating a School of Transportation to be housed in a new Center for Transportation Studies building

Creation of an NDSU School of Transportation will consolidate and focus transportation-related education efforts at NDSU, enhancing the ability to attract talented students while allowing them to be involved in innovative research and outreach projects. The school and its programs would be housed in a Center for Transportation Studies building on the NDSU campus. The success of every field of study and human endeavor ranging from the arts to zoology would be sorely limited if it were not for transportation. The study of transportation and logistics systems includes disciplines such as economics, engineering, sociology, computer science, statistics and others. An academic school that brings those disciplines together would reflect North Dakota's commitment to transportation. A building to house that school would add prestige to this important field of study and create an atmosphere of innovation and creativity that will have positive implications for the transportation systems of the future.

Design work on the 67,000 square-foot building is complete and construction costs are estimated at about $13 million. The UGPTI's Advisory Council has formed a building committee to explore options for raising funds for this project.

Agricultural Research

Estimating road Investment needs for agriculture. Because of the importance of agriculture to the state's economy, UGPTI researchers studied the investment needs of roads used to haul agricultural goods to market. They analyzed changes in agricultural production and logistics and the importance of roadway investments to the distribution of crops produced in North Dakota. The study was based on a detailed crop production and distribution model. The estimated investment needed for county and local paved roads totals $100.5 million annually on a statewide basis. Approximately $59 million of these needs relate to agricultural haul roads. The remainder corresponds to other county and local roads. In addition, $110 million are needed annually for local unpaved roads. Approximately, $43.6 million of these needs relate to agricultural haul roads. The remainder corresponds to other local roads, especially township roads. Altogether, the total estimated statewide need is $211.5 million per year, including $100.5 million of paved road investment needs and $110 million of unpaved road investment needs.

Wheat movement studied. Movement of Hard Red Spring Wheat to market from North Dakota has been transformed in the last 25 years by consolidation in both the grain and railroad industries as well as by a move toward larger trains. Researchers studied wheat movement to assess how competitive ND wheat is with other commodities and other parts of the country and to learn how transportation factors into that competitiveness. North Dakota has about 50 elevators capable of loading trains of 100 cars or more. The researchers found that grain movements gravitate to those facilities. Producers and country elevators have invested heavily in facilities and track which has been a big benefit to railroads. The ND Wheat Commission wants to see if they are getting the most competitive rates for that investment.

North Dakota grain movement. Researchers summarize grain movement reports from each elevator in North Dakota. Annual reports and monthly updates are used to encourage competition within the grain industry and to identify research needs and market trends.

Rail updates. The UGPTI provides the USDA with updated market and service information for the rail section of the weekly Grain Transportation Report.

Enhancing competitiveness. Staff determine how businesses and industries can apply logistics and supply chain management techniques to improve competitiveness and access to regional global markets. For example: an evaluation of truck configuration involved in moving the annual North Dakota and Minnesota sugar beet harvest resulted in $2.3 million in shipper savings and about $5.8 million in pavement maintenance.

Growing pains. Researchers are addressing transportation challenges posed by economic growth (more than a 90 percent increase in GDP in the last decade) and an increase in agricultural production (more than tripled since 1950). They are also evaluating and addressing stresses on the transportation system from the energy sector. North Dakota is now the fifth largest oil producing state and has growing biofuels and wind energy industries.

Intelligent Transportation Systems

Statewide and regional ITS architecture updates. An ITS architecture provides a framework for supporting ITS deployment by defining services, developing system requirements, identifying information flows, coordinating agency roles, and integrating functions across jurisdictional lines. Having a current ITS architecture is a requirement for receiving federal funds for ITS projects. ATAC has been a resource for the NDDOT and ND MPOs for developing and maintaining their ITS architectures. The update process is needed to reflect new ITS priorities and strategies, account for expansion in ITS scope, and allow for evolution and incorporation of new ideas.

ITS equipment/project evaluations. Transportation agencies install various types of equipment and systems to assist in their operations, maintenance, and planning activities. Typically, these agencies lack the time or resources to evaluate the effectiveness of these systems. UGPTI researchers have assisted the NDDOT in evaluating non-intrusive traffic detection equipment and fixed automated spray technology systems. The evaluations provide information related to limitations and capabilities of the technology as well as the cost effectiveness of the systems.

Study examines adoption of new technologies by transit systems. To assist individual transit agencies in quantifying the costs and benefits of a specific technology, demonstration projects have been conducted throughout the United States, many with the support of the Federal Transit Administration. At the same time, the U.S. Department of Transportation has expended considerable effort to support the advancement of Intelligent Transportation Systems (ITS) to increase the likelihood of success for transportation agencies in planning, developing, operating, and maintaining technology systems. These efforts have largely been successful, but in spite of this, there is little information available regarding which transit agencies have adopted which technologies or whether certain agencies are more likely to adopt particular technologies. UGPTI researchers surveyed small urban and rural transit agencies with the objectives of assembling a publicly available database on existing and planned use of technology by transit agencies that receive Section 5311 funding, calculating simple statistics on technology use, and rigorously investigating the relationship between agency and environmental factors that impact the adoption of technology. These data and findings will serve as valuable tools for policymakers and researchers involved with transit technology issues and projects.

Transit and Personal Mobility

Ride or relocate. In the face of an "aging tsunami," a UGPTI study quantified the cost of riding transit in rural areas of North Dakota versus relocating to larger communities. Transit costs included capital costs, passenger fares, and operating costs. Relocation costs included rent, realtor fees and intangible costs related to quality of life. Finally the research quantified the cost of riding transit versus relocating to the eight largest communities in North Dakota: Fargo, Bismarck, Grand Forks, Minot, Dickinson, Jamestown, Williston, and Devils Lake. Overall, results indicated that the cost of assisted living was almost always higher than the other three alternatives. Homeowners without mortgages had the lowest costs followed by apartment dwellers and homeowners with mortgages.

Research assesses existing and needed community transportation for ND disabled. UGPTI is surveying people with disabilities across North Dakota via mail, phone, and the Internet. The survey asks questions about the ability of people with disabilities to make needed or desired trips, use of community transportation options such as buses, and unmet needs or difficulties encountered. With that information, state, regional, county and local public and private transportation operators and human service agencies will be able to assess their existing transportation services, identify gaps and needs, and plan improvements. Another goal is to create a survey instrument that could be used over time to assess progress in providing transportation for adults with disabilities in the state and could also be used by communities and states beyond North Dakota for collecting similar information.

Study examines how public transportation influences health care access. A new study is examining how access to public transportation influences access to health care in North Dakota. There is significant evidence that health care utilization is generally lower in rural areas compared to urban areas. These differences could be due to a number of reasons including the longer travel distances and fewer transportation options available for people in rural areas. If providing transportation to health services for those who lack it increases the utilization of these services, there could be cost benefits in terms of reduced need for emergency care and preventable hospitalizations. The study will measure the impact of public transportation on access to health care services in rural and small urban areas. It will attempt to identify areas where there is a demand for more public transportation and ways in which the service could be enhanced to improve access to health care. A survey is being conducted to gather data on how distance from health care providers impacts individuals' ability to access health care services, and how public transportation can improve their ability to obtain health care.

SURTC leads legislative study on coordination. More mobility for more people while making the best use of funds directed to transit is the focus of a study authorized by the 2009 North Dakota Legislature. Through an RFP process, the North Dakota Department of Transportation selected SURTC to conduct the study which includes establishing two pilot regional coordination projects in the state. The focus of the study is to identify ways that public transportation can be better coordinated to improve mobility for residents and assure that the limited federal and state money directed at transit is spent most efficiently. "This is not an effort to force transit providers to consolidate their services," notes SURTC researcher Jon Mielke. "It is an effort to identify ways that they can better work together to most efficiently use resources to reach the largest number of individuals." The study comes as federal funding agencies are continuing to encourage coordination among transit providers and human service agencies that provide mobility services to their clients. The legislation directed that pilot projects be established to look at two regions in the state: one with a city of more than 35,000 residents, and one with a smaller city. The goal is to identify both barriers to transit coordination as well as ways that transit-providing agencies could better coordinate their efforts. Researchers identified several approaches to transit coordination that could be employed in areas across the state. They also identified actions for the legislature to consider in regard to legislative changes that remove roadblocks to coordination or that enhance the ability of transit providers to work together.

Transportation Planning

Estimating road needs for oil development. UGPTI researchers developed a forecast of road investment needs in oil and gas producing counties of North Dakota over the next 20 years in light of the expected growth. They quantified the additional investments necessary for efficient year-round transportation of oil while providing travelers with acceptable roadway service. The focus was on roads owned or maintained by local governments—e.g., counties and townships. They identified approximately 12,718 miles of impacted unpaved roads. The projected cost of oil-related traffic on these roads is $567 million over the next 20 years (from 2011 through 2030). When the unpaved and paved road costs are added together, the projected investment need for all roads amounts to $907 million, which is equal to an average annual need of $45.35 million over the 2011-2030 period.

Metropolitan Transportation Planning. ATAC houses the regional travel demand models of the three metropolitan planning organizations in North Dakota. As such, ATAC provides, maintains, runs and updates these models to support transportation planning activities. Researchers analyzed several corridors and interchanges to assist in designing improvements that will reduce congestion and improve safety. The analysis is also used in long-term transportation planning.

Cost-saving analysis. UGPTI researchers provided the engineering analysis for concrete pavement reconstruction design changes that resulted in a reconstruction savings of $150,000 per mile. UGPTI also provided research for the development of an asphalt ride quality specification for new construction resulting in smoother, longer-lasting facilities.

National freight conference. The UGPTI and eight other university transportation centers planned and funded the Transportation Research Board summer conference in Minneapolis in July 2010. The conference addressed the U.S. DOT's Framework for a National Freight Policy. Collaborators also helped plan and organize a two-day track on multimodal freight and waterway transportation. A goal was to improve interagency planning and integration of waterway, rail and highway planning to increase efficiency and reduce congestion in key corridors. The more than 250 attendees included members of Congress, FHWA, FRA, MARAD, the U.S. Army Corps of Engineers, state transportation departments, ports, transportation operators and other stakeholders.

Safety

Commercial vehicle safety. UGPTI's Transportation Safety Systems Center develops and maintains software used by state and federal safety specialists nationwide at weigh stations and ports-of-entry for inspecting commercial vehicles. Additional software is used by safety specialists during on-site reviews of commercial carriers.

Measuring seat belt use. A total of 5,735 driver seat belt observations were collected at 152 sites across 23 rural counties. Overall seat belt use increased from 44.8% in 2009 to 46.8% in 2010. Seat belt use was found to be significantly different on rural highways and in rural towns. The statewide seat belt

use rates of 57.2% and 36.6% were estimated on highways and in towns, respectively. Seat belt use on the state's rural roads was found to be significantly less than the commonly reported statewide seat belt use rate collected previously. The results suggested that additional research is needed related to rural seat belt use. In addition, continued assessment of programs to increase local seat belt enforcement or awareness on rural roads is suggested.

A look at teen drivers. North Dakota teens have relatively high risk for crash injury and death. Analysis of a survey completed by 2,284 teens in the state shows age, driving exposure, driving experience, and demographics are interrelated factors in safety outcomes. The oldest teens are least likely to be consistent seat belt users. School grades are a strong demographic in teen driving safety – 80% of teens that reported A's in school report high seat belt use compared to 25% of teens that reported F's. The results suggest potential gains from educational efforts that may be directed at older teens and young males. Traffic safety programs designed to reach teens with low school grades may also provide positive results.

Older drivers and safety. Older drivers are a growing segment in North Dakota's driver population. The natural aging process brings about diminished visual, cognitive, and physical skills needed for driving tasks. Crash record analysis was conducted to highlight elements that may be used to reduce risk for older drivers. Results show that older drivers are at relatively high risk for crash involvement and injury considering incidence ratios and travel exposure. Among drivers 70 years and older, a significant increasing trend is found for driver error along with a declining trend in driver evasive maneuver in crashes. Findings may be used in vetting a combination of education, engineering, policy, and enforcement measures that can be used to reduce older driver risk for crash injury and death both in terms of crash involvement and injury severity.

Education

New degree programs launched. NDSU's Graduate School added new graduate programs for the 2009-10 academic year. The Transportation and Logistics Program, coordinated by the UGPTI, now offers two new graduate degrees and two new certificate programs. The programs focus on urban transportation systems; linkages between transportation, land use, the environment, emergency response, and logistical delivery systems; coordinated planning, operations and security; and the spatial dimensions of urban systems.

- The Masters of Science in Transportation and Urban Systems degree is targeted at students with strong research interests and capabilities who want to work in the fields of research or education.
- The Masters of Transportation and Urban Systems degree is targeted at mid-career professionals and other candidates who want to gain skills appropriate to their career without participating in advanced research.
- The Transportation and Urban Systems Certificate is a program designed to enhance working professionals' credentials in the transportation and logistics field.

- The Transportation Leadership Graduate Certificate is an online program designed to prepare future leaders of the transportation industry. This prestigious program is an initiative of the Regional University Transportation Centers.

Dissertation provides flood contingency plan. As emergency response officials in North Dakota pondered the possible evacuation of Fargo during the height of 2009 flooding, they looked to information developed by an NDSU Ph.D. student for guidance. Mohammad Naser was nearing completion of his dissertation on simulating emergency evacuations of small- to mid-sized cities. The basic scenario he used in his research was a levee breach in the flood protection system along the red river.

Students earn award. Transportation and logistics doctoral students Chris Enyinda and Charles Briggs and Won Koo, professor of agribusiness and applied economics, received a best paper award during the Global Academy of Business and Economic Research international conference in 2009. Briggs and Enyinda presented the paper "The Role of Competitive Intelligence Leverage in Supply Chain Risk Management Strategy."

DriveSafety simulation project. In 2009 DOTSC information technology students began work with the NDSU psychology department and its Drive Safety driving simulator. The students are helping customize software for the project.

DOTSC jump starts careers. Since DOTSC was created in 2000, the center has employed 72 students. Twenty-eight of those students moved directly into positions at NDDOT. Another 28 others went to work with consulting or engineering firms. Other employers included state departments of transportation and the BNSF Railway. Currently there are 11 student design assistants in the engineering center. For the past several years, the students have developed construction plans for $25 million to $50 million of construction projects a year.

Lee inducted into NDSU Tapestry of Diverse Talents. Ph.D. student Eunsu Lee was inducted in December 2009. The award recognizes students, faculty, staff and alumni for the diversity and contributions they bring to NDSU. Lee, of South Korea, is an active member of the Korean Student Association, Bison Herald, and Association of Transportation and Logistics.

Student paper tops contest. Ph.D. student Eunsu Lee's paper, "Estimating trip diversion by using impedance in flooding regions," was one of the winners in the GIS-T Student Paper Contest. The paper was presented April 12, 2010, at the GIS-T Symposium in Charleston, WV. He won a paid registration to the symposium and a cash award. Lee's paper focused on travel patterns and transportation management with road and bridge closures due to the flooding.

UGPTI helps launch nation-wide leadership program. The Transportation Leadership Graduate Certificate is an online program designed to prepare future leaders of the transportation industry. The program, aimed at working professionals, provides training to help them improve performance and the expertise needed to advance within their organizations. The program is an initiative of the Regional

University Transportation Centers to provide graduate-level education to prepare the future leaders of the transportation industry. The program offers diverse classes online taught by leading faculty at some of the nation's premier universities. UGPTI helped plan and organize the effort. Courses were first offered Spring semester of 2010. NDSU is one of the premier institutions that will offer courses taught by graduate faculty.

Outreach

Meeting training needs. NDLTAP furnished 33 training sessions to more than 1,427 workers in state, local, tribal and private agencies for more than 7,275 participant hours in 2009. The training programs help agencies meet federal requirements. Recent initiatives include work zone safety and traffic control in work zones and new reflectivity requirements for traffic control signs. NDLTAP also distributed training material and technical information to local and tribal governments through direct contact or via a newsletter with more than 7,000 subscribers.

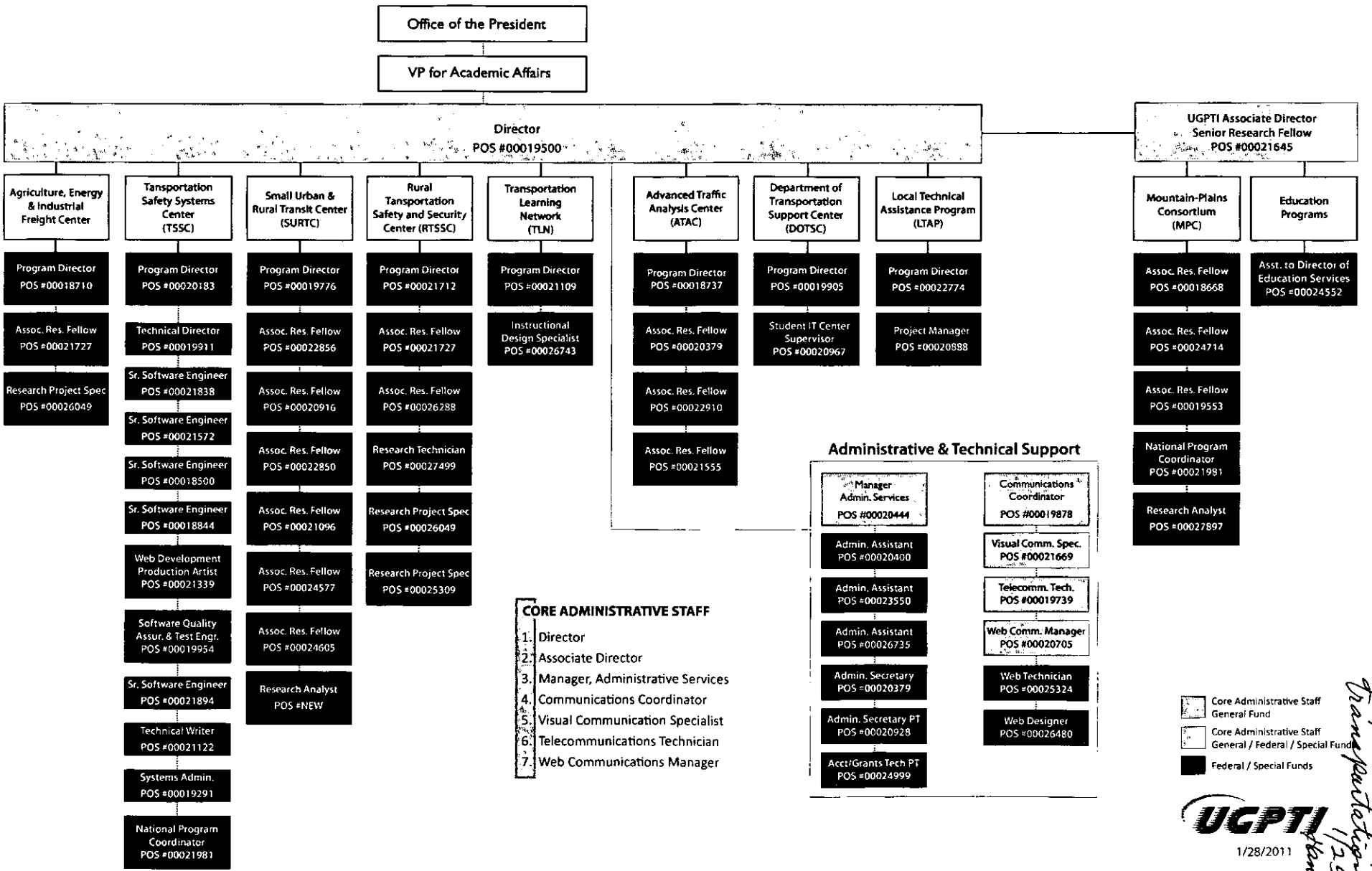
Asset management workshop. UGPTI hosted at two-day asset management workshop via video conference for tribal, municipal and county road agencies at 19 sites across the Upper Great Plains. The event had two primary goals: to learn how extensively asset management techniques are applied by road managers in the region; and to identify ways to help them implement principles of asset management. Presenters included staff from county road departments and municipal public works departments who detailed their efforts.

Workforce development summit held. The "Solutions Summit for Public Transportation Workforce Development" was held in Fargo at the Holiday Inn in September 2009 to bring together experts from across the country to exchange ideas and develop strategies to address the need for workers and leaders in public transportation. "The need for professionals in public transit could significantly hamper the industry's ability to meet the mobility needs of its clients," notes SURTC director Jill Hough. The goal of the summit was to bring together interested persons in public transportation to dialogue on workforce development needs and actions.

Traffic Safety Evaluations. More than 40 percent of fatal motor vehicle crashes in North Dakota occurred on local roads – the two-lane gravel and pavement roads that make up the bulk of North Dakota's road systems. The U.S. Department of Transportation indicates up to a third of those crashes could have been avoided if the roads, markings and signs were updated. The UGPTI is working with local cities, counties and tribal authorities to conduct "traffic safety evaluations" on crash-prone road segments to identify safety improvements. The idea is to implement low-cost improvements on road segments that local residents and road managers have identified as high-risk for crashes. One example: Barnes County Highway 21 which runs south of Valley City along the Sheyenne River. Resulting improvements included upgraded signs and pavement markings on several curves and the removal of vegetation to improve visibility.

UGPTI has role in U.S. DOT reauthorization tour. U.S. Secretary of Transportation Ray LaHood visited North Dakota as part of the U.S. DOT's Transportation Reauthorization Outreach Tour, one of six meetings across the country that brought together, federal, state and local officials, as well as transportation providers, users and other stakeholders. As part of the June 2010 event, UGPTI associate research fellow Jill Hough provided testimony on the importance of transit and mobility to the livability of rural areas. UGPTI director Gene Griffin moderated a panel discussion of state department of transportation directors from the region.

Upper Great Plains Transportation Institute, North Dakota State University, Fargo



HB 1029 Upper Great Plains transportation institute 1/25/11 Handout #1

HB 1020
Handout #1

NDLA, H APP EE

From: McCarthy, Kathy [Kathy.McCarthy@ndsu.edu]
Sent: Tuesday, February 08, 2011 2:10 PM
To: NDLA, H APP EE
Cc: McDonald, Cathy A.; Griffin, Gene; Tammy Dolan (tdolan@nd.gov)
Subject: Amendment to UGPTI testimony

Good Afternoon Shirley,

The UGPTI would like to include in its testimony for HB 1020 the following statement as required by Section 2 of SB2020:

Use of one-time funding received in 09-11:

In 2009, the North Dakota Legislature authorized the expenditure of $3 million for construction of the Center for Transportation Studies under SB2020. No state funds were appropriated for this project. This authorization was requested in anticipation that federal funding might be made available for the construction of the center. NDSU and the Upper Great Plains Transportation Institute were not awarded federal funding for this project and consequently no expenditures for construction have occurred under the 2009 authorization.

Kathy McCarthy
Manager, Administrative Services
Upper Great Plains Transportation Institute
North Dakota State University
NDSU Dept 2880 – PO Box 6050
Fargo, ND 58108-6050
Phone: (701) 231-7767
Fax: (701) 231-1945
Email: Kathy.mccarthy@ndsu.edu
Web: ugpti.org

Shipping Address:
Room 430 IACC Bldg
1320 Albrecht Blvd
Fargo, ND 58102

HB 1020
Agronomy Seed Farm
1/31/11
attachment # 1

January 25, 2011
Education and Environment Division of the House Appropriations Committee
Representative Bob Skarphol, Chairman

The Agronomy Seed Farm operates about as much like a commercial farm as any entity of the North Dakota Agricultural Experiment Station. Our goal is to grow seed of crop varieties which will be in demand during the summer, condition the seed and have it available for the seed industry the following year, sell as much of it as we can and repeat the cycle the next year. In addition to this, we serve as support to the research effort of the NDAES by providing rotational land for research plots, helping prepare the plot land, provide some support of the plot care during the summer, and harvesting remnant crops after the researchers have completed their investigations.

The seed is sold at a premium price which covers our cost of production and the extra effort required to produce Foundation grade seed which is the parent seed of all public varieties that are grown. Any seed not sold is carried over to be sold in subsequent years until the variety loses its popularity at which time it can be sold as commodity. With this type of existence it is apparent that when the crop economy of ND flourishes the Agronomy Seed Farm flourished also. This has been the case for the last few years. We have had favorable environmental conditions which have enabled us to produce above average crops and the prices have been relatively good which has enabled us to build a comfortable financial base on which to operate.

The current state of our facilities is adequate to carry out the mission for which we are charged; to produce, condition and sell Foundation seed and support the research mission of the NDAES, particularly as it relates to variety development. The budget request before you should enable us to carry out our mission as we have for the past 60 years of our existence. That is to be self supporting without any general fund support and covering all our costs incurred in operating the farm from income derived from the sale of Foundation grade seed and the grain that is not sold for seed, but is sold as commodity at our local elevators.

Your support of this budget should allow us to make the gradual improvements that will make the ASF more productive and a more valuable cog in the research effort of NDSU agriculture by allowing for timely replacement and updating of our equipment line, tiling and improvement of the land base, and general maintenance of buildings and facilities

Dickinson Research Extension Center

Research Staff Only

Director - .50 FTE

Ranch Manager

Assistant Director - .25 FTE

Administrative Assistant - .50 FTE

Accounting/Finance Technician - .50 FTE

Computer Technician - .75 FTE

Dickinson Unit Manager

Beef Research

- Research Beef Specialist
- Research Specialist/ Biosecurity
- Research Specialist - .50 FTE
- Research Specialist
- Data Research Technician
- Ag Research Technician
- Livestock Research Technician
- Ag Research Technician
- Research Specialist
- Res/Ext Beef Quality Specialist - .15 FTE

Range Research

- Research Range Specialist
- Information Processing Specialist
- Range Research Technician

Agronomy Research

- Research Center Agronomist
- Research Specialist
- Ag Research Technician

Sustainable Agriculture

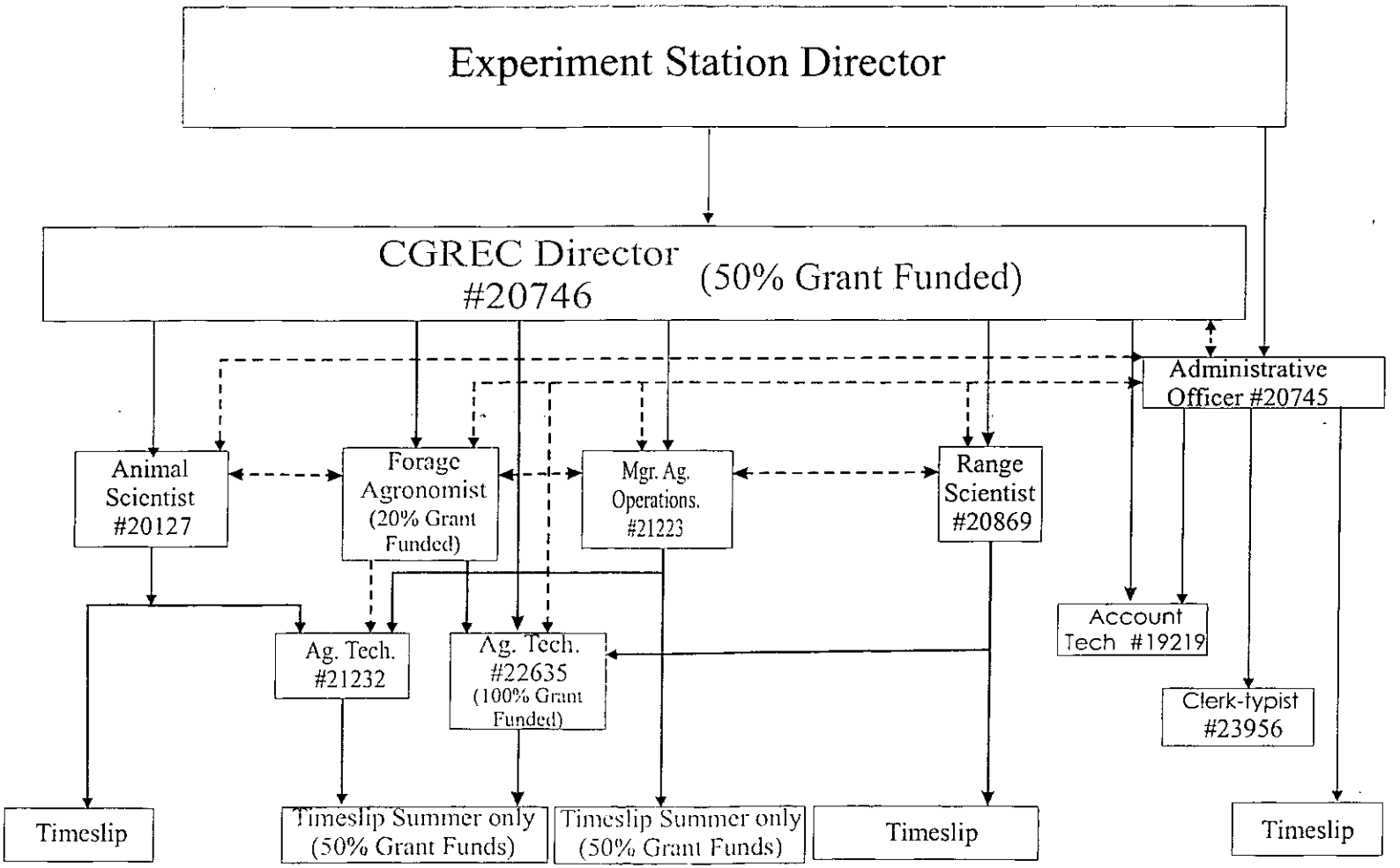
- Outreach Specialist - .50 FTE

State Funded Position

State & Grant Funded Position

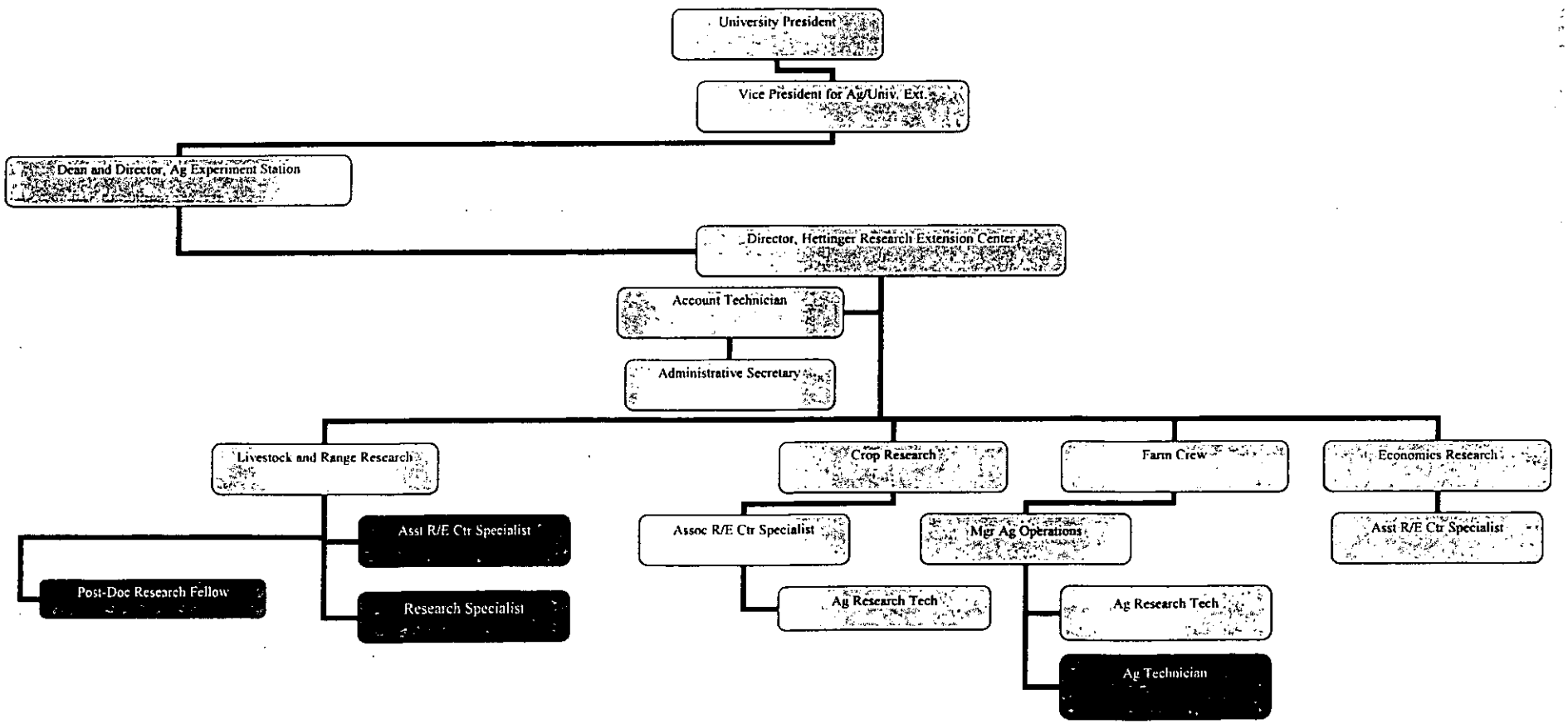
SB 1070
North Dakota Agricultural Experiment Station and NDSU Extension Service
1/25/11
Attachment # 1

Central Grassland Research Extension Center



Positions and percentages in red indicate grant funds all others 100% general funds as of 1/25/2011

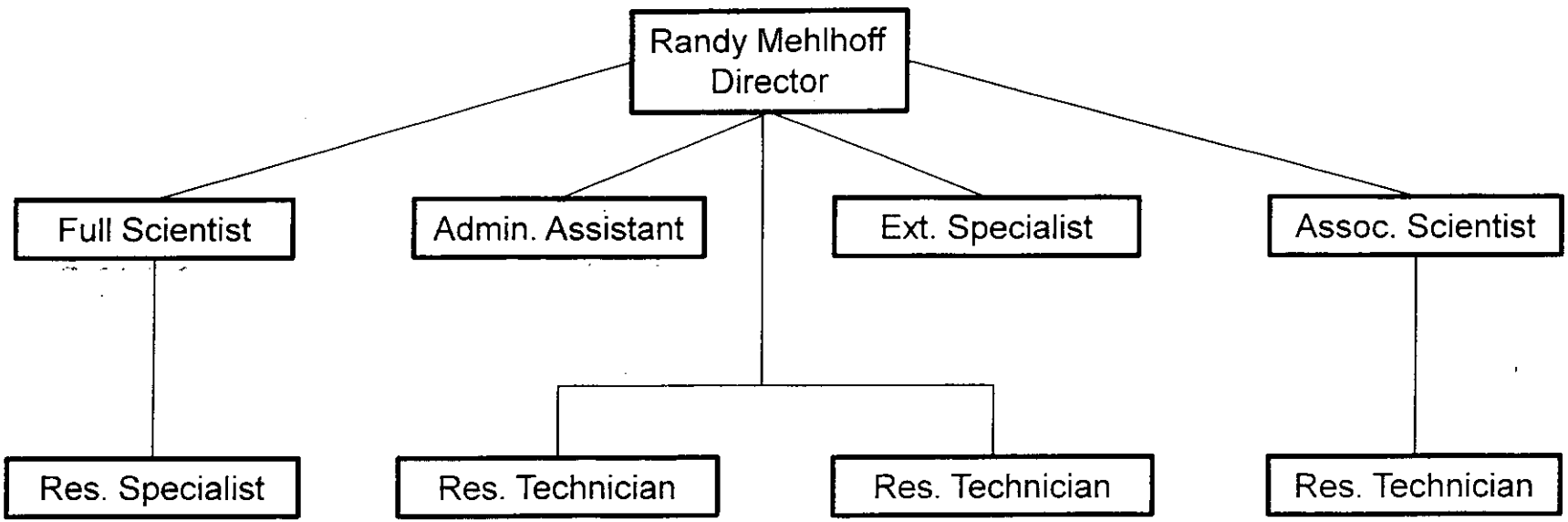
Hettinger Research Extension Center
Organizational Chart
Research (AES) Staffing (State and Grant Funds)



ND General Fund Position

Grant Funded Position

Langdon REC Organizational Chart



- Six Positions are 100 percent hard dollar funded
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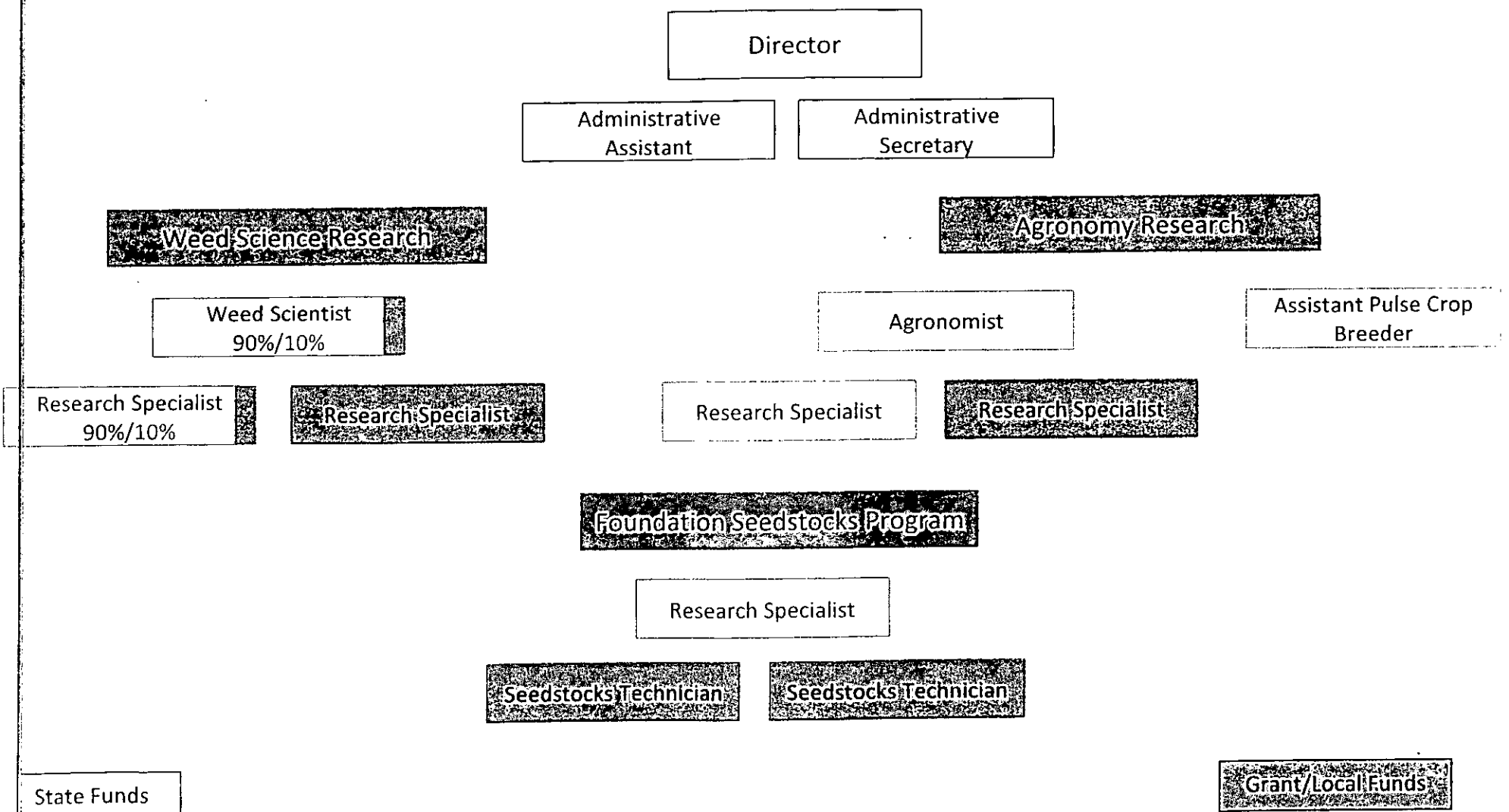
- One position is 50 percent grant and 50 percent hard dollar funded (Research Technician)
- One position is 75 percent hard dollar and 25 percent grant dollar funded (Assoc. Scientist)
- We hire seven summer workers that are all grant dollar funded.

North Central Research Extension Center

Research (AES) Staffing

State and Grant/Local Funds



1/18/2011

WILLISTON RESEARCH EXTENSION CENTER

Organizational Chart - Funding Sources

Director 0.5 FTE

Administrative Assistant

Agronomy Research

Assistant Director/Agronomist
Scientist / Faculty

Soil Scientist
Scientist / Faculty

Research Specialist
Horticulture 0.75 FTE
Admin Assist 0.25 FTE

Research Specialist

Research Specialist

Seasonal/Temporary Employees

Irrigation Research

Irrigation Agronomist
Scientist / Faculty

Research Specialist

Research Specialist 0.75 FTE

Ag Technician

Custodian 0.2 FTE

Seedstocks Program

Research Specialist

Seedstocks Technician

Extension Specialist

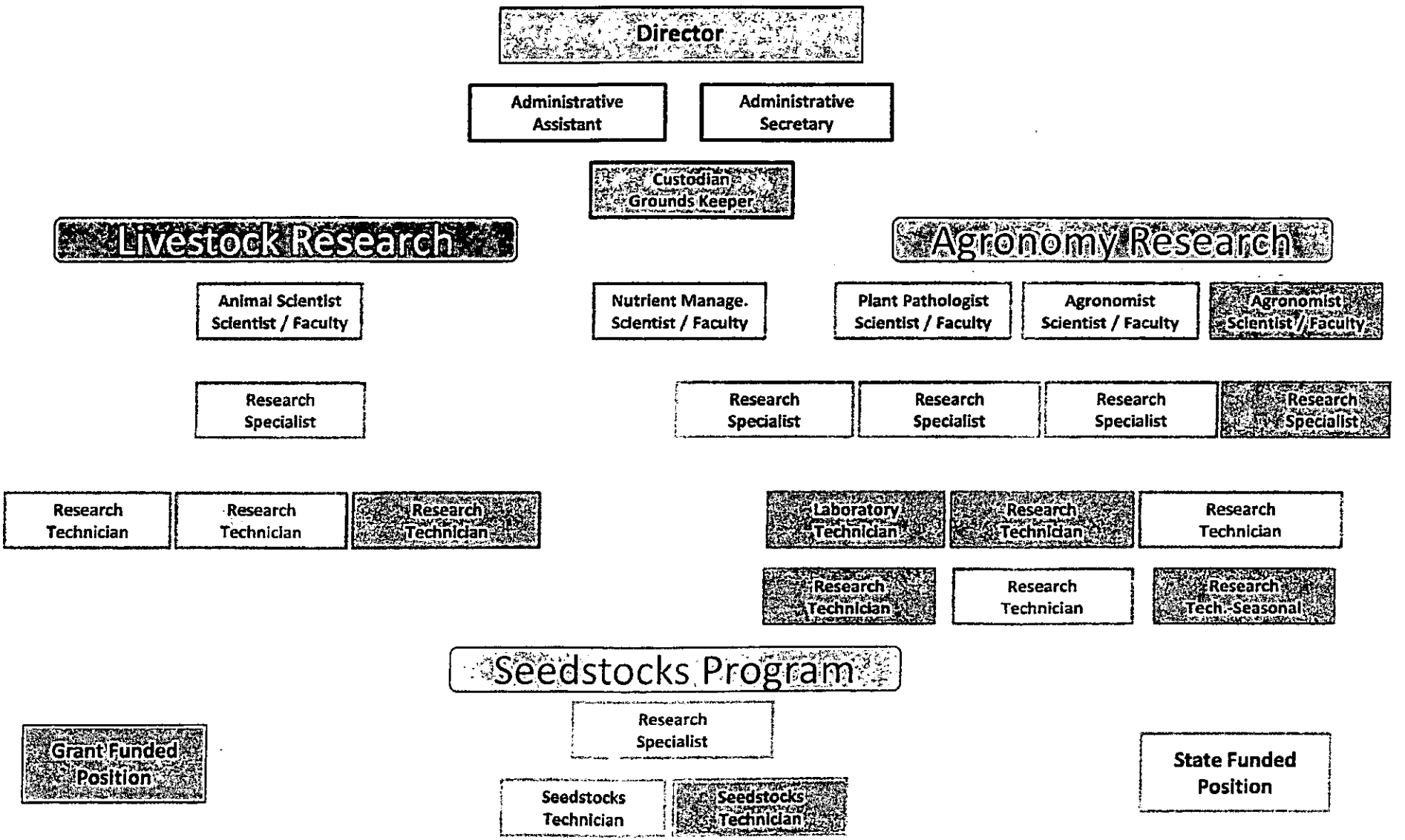
Ag Diversification
Value-Added

State Funded Position

Sales/Grant Funded Position

Carrington Research Extension Center

Research {AES} Staffing (State and Grant Funds)



HB1020
ND ag Experiment Station and NDSU Extension Service
1/25/11
attachment #3

NDSU
Extension Service

NORTH DAKOTA STATE UNIVERSITY

Steele County
201 Washington Ave.
P.O. Box 316
Finley, ND 58230-0316

Tel. 701.524.2253
Fax 701.524.1519
NDSU.Steele.Extension@ndsu.edu
www.ag.ndsu.edu/county/steele
www.ag.ndsu.edu/extension

Mr. Chairman and members of the committee, my name is Andy Johnson and I am the Agricultural Extension Agent in Steele County which is located in Finley, North Dakota.

In 2007, I started my career with the NDSU Extension Service after I graduated from NDSU with a B.S. degree in Agriculture. My first position within the NDSU Extension Service was located in Walsh County as an Extension Agent-In-Training. After an orientation process to Extension, I was responsible to answer farmer and rancher questions on pesticides, spray drift, and crop varieties, as well as questions from the public on many topics such as gardening and lawn care, to insects and other pest problems. While I was in the training program, I also helped plan and organize many events and meetings working on collaborations with other agencies. All this may have been overwhelming to a new extension agent, but I had confidence that I would be successful because of the support I received from those mentoring me, primarily the full-time agricultural agent. This experience enabled me to become confident in my abilities to run the day-to-day operations of an Extension office. In 2008, I became the full-time Extension Agent in Steele County and from that very first day, I hit the ground running because of my training in Walsh County.

Overall, my major roles are to provide education whether at a marketing club in Sharon or Hope, grower meetings on storing high moisture corn in Finley, or conducting replicated crop production research through variety trials. For me the real impacts occur when the hybrid replicated corn, soybean and wheat trials in Steele County provide growers with that unbiased research data. Regarding our trial plots, one grower stated, "NDSU Extension Service serves as a tie between local and state resources, without them we could not have had this information." By providing producers with unbiased education, growers are able to make informed decisions.

By utilizing the Extension Agent-in-Training program, newly hired employees will receive exposure to a wide variety of agriculture disciplines, which should reduce the workload and frustration experience by new extension agents. The creation of the Extension Agent-in-Training program has allowed me to become competent in a number of subject matter areas prior to assuming responsibility for a county office. In addition to the subject matter competencies, we must also build relationships with individuals and organizations with whom we work closely such as Crop Improvement Boards, Farm Service Agency, Weed Boards, Marketing Clubs, Soil Conservation Districts, and other similar agencies.

The NDSU Extension Service needs Extension Agents who are excited about today's issues, knowledgeable in their fields, dedicated to education and committed to building better communities. It is a tall order, but one that can be achieved with the Extension Agent-in-Training program.

Thank you for your time.

HB 1020
Attachment #4
1/25/11

Hearing Testimony For HB1020
By: Carter Tomac

Good morning. I'm Carter Tomac from Mandan, ND and I've been in 4-H for the past 8 years. I am here today to ask for your support of House Bill 1020, which includes funding to build a Conference Center at the Western 4-H Camp site.

I actively participate in many events in the great program of 4-H, including communication arts, consumer choices and the State Extension Youth Conference in Fargo. I've held numerous offices in my club, including President for 2 years. I am a Morton County Jr. Ambassador and over the past 8 years I have attended 4-H camp 5 years in a row.

I always look forward to going to camp because I think the various camps offered there are amazing. Although Survivor Camp has been my favorite (I've gone 3 years in a row now), I have also gone to the Beginning Outdoor Skills camp and the WOW! Camp, which taught us about North Dakota's wind energy and of new forms of technology. At Survivor Camp, we learned how to lower the American flag properly, to be respectful of others even if they haven't been to you, to work as a team, trust others and have fun!

4-H camps are very positive experiences that teach kids like me life skills. I have made numerous friends through the 4-H camps and programs. The most important thing about camp is that all kids, no matter where they come from across the state, have the opportunity to learn and have fun. Also, I would like to emphasize that they do not need to be in 4-H to attend; the camps are open to everyone.

If 4-H is allocated the money for this Bill, I trust and believe that it will be put to good use with the building of a new facility. The current buildings were built in the 1960's and are not ADA compliant. The sleeping cabins are outdated and the bathroom and shower areas don't have very much privacy.

Another thing this would mean is if the facility were to be built, handicapped and other kids who may not have been able to attend camp before would have the opportunity to attend.

The facility could support camps all year long and not just in the summer. For example, the center and grounds could be used to teach snowmobile safety for kids as well as adults. Other winter activities such as dog sledding camps, cross country skiing camps, hunter safety courses and more could be held there. The facility would also be used as a 4-H ambassador training center and for volunteer leader training.

In closing, I would like to emphasize that being involved in 4-H has greatly benefited me. If it wouldn't have been for 4-H, I would not be here talking to you right now. 4-H has given me the confidence and ability to speak in public. Since the 4-H programs and camps have done so much for me, I want other kids that couldn't go before to have this chance as well.

I have made lifelong friends that I still talk to today because of 4-H. The 4-H program creates amazing camping programs and it would be great to have a new facility built for more opportunities to learn, make new friends and have fun!

Thank you for your time and your consideration of House Bill 1020.

HB 1020
attachment #5
1/25/11

Testimony for the NDSU Hettinger Research Extension Center
Submitted by Christopher Schauer, Director Hettinger Research Extension Center
House Appropriations Hearing
January 25, 2011

Thank you for your support at the last legislative session.

The top issues facing our region, and supported by our Advisory Board, are managing for soil health and managing lands for multiple-use (incorporating out-of-state landowners and wildlife interests into private, state, and federal land management).

Soils Health and Land Management:
No-till and minimum tillage have been widely incorporated into our cropping production systems. However, in today's uncertain and escalating fertilizer prices, optimizing the use of agronomic inputs in no-till farming systems is a priority that we cannot address with our current staffing. Additionally, the issues of salinity have not received adequate attention in SW ND. Two large issues, CRP and federal land management, are affecting not only our regional producers but the entire economies of our region. In ND many of our CRP acres have expired or have been removed from the program. Landowners, many of them no longer affiliated with agriculture, are looking for management options that include providing wildlife habitat while also embracing agriculture. This research does not currently exist. Recent research at the HREC has indicated that CRP may be able to be grazed at 50% use without negatively affecting pheasant nesting and success. Extension programming in Carson and Hettinger has attracted over 150 land owners, the majority of which are not currently living in the region. Additionally, changes in management plans in the Forest Service grazing lands are going to affect entire communities. In the McKenzie County Grazing District, Medora Grazing District, and Grand River Grazing Districts 1.5 million acres of rangeland are being evaluated for multiple-use: primarily the use of these lands for sharp-tailed grouse habitat and how grazing may affect nesting and brood rearing. No current and regional research exists to estimate these nesting requirements, and subsequently, our ND livestock producers may be looking at cuts to grazing of 10 – 40 %.

> ***Example:*** Both the sage grouse and black-tailed prairie dog have experienced population declines within North Dakota and in both instances agriculture has been indicated as a major cause for their decline. In the case of the sage grouse, the loss of habitat due to the conversion of the sage brush community to one that includes more palatable high quality forage for livestock is believed to be the initial reason for their reduction in population. In today's society the conservation of wildlife diversity is considered extremely important with many groups and individuals devoting countless resources to conservation efforts. Because of laws enacted as part of Acts of Congress, agriculture can be affected by conservation efforts. Again the sage grouse is a classic example. In March of 2010 the sage grouse was once again considered for listing under the Endangered Species Act. At the time the US Fish and Wildlife deemed that the sage grouse warranted listing but precluded it from listing for the time being. Such a listing will result in the Fish and Wildlife reevaluating the species for listing on an annual basis. Had the grouse been listed, numerous livestock producers in southwest North Dakota would have been impacted. In fact, livestock grazing on public lands within sage grouse habitat may have ended or at the very least livestock numbers would likely have been reduced.

To date, this grant funded program has generated over $3.5 million in grants in 6 years. However, to continue this research and extension effort, legislative funding is needed. We have only touched the tip of the issues that our land managers are going to be confronted with in the coming years. Our Advisory Board, the Stockmen's Association, ND Lamb and Wool Producer's Association, Northern Great Plains Working Group, and the ND Chapter of the Society for Range Management have all passed resolutions in favor of our requests in support of this initiative. These letters of support and initiatives are available upon request.

Facilities:

Agronomy and Range Lab: The agronomy and range research programs at the HREC have outgrown the lab and equipment storage facilities. The current agronomy lab is a converted 30 x 30 foot grainery and does not provide sufficient lab or equipment storage space. The range research program at the HREC continues to expand and require a drying room, sample processing, and equipment storage space. A modern Agronomy and Range Lab of approximately 8,000 square foot is needed to provide technicians and graduate students with office space, technical facilities in line with modern research (internet access, dust free environments to work on computers, lab areas for handling radio telemetry collars for wildlife and domestic livestock, and bathrooms), new drying ovens and sampling processing areas, and storage for both research samples and equipment.

Deferred Maintenance and Safety: Deferred maintenance and safety issues will likely reach $500,000 by the end of the current biennium. Specifically, a frontage road is needed to remove the daily use of Highway 12 by our feed-wagon and tractor, which is on the road 8 to 12 times daily during peak usage.

In closing, thank you for your past support, and we intend on delivering a high quality product with the support you give us in the future.

HB1020
attachment #6
1/25/11

For House Bill 1020
WILLISTON RESEARCH EXTENSION CENTER (WREC)
Budget No. 646 as part of the combined budget No. 628

Prepared for:
House Appropriations Sub-Committee on 1/25/11
by
Jerald W. Bergman, WREC Director

Mr. Chairman and Members of the House Appropriations Sub-Committee:

I support HB 1020 as prioritized by SBARE.

Since 1990, Northwest North Dakota has seen a reduction of fallow acres from 1.4 million to 200,000 acres, and an increase in irrigated acres. This more intense and diversified agriculture has attracted new and expanding agricultural processors into our region and has significantly increased revenue from agriculture in our region.

This switch from wheat-fallow to more intensified and diversified cropping systems has created a critical need for a plant pathologist at WREC to conduct disease surveys and research to develop disease control measures and recommendations under both intensive dryland and irrigated cropping systems.

The funding request for a plant pathologist at WREC is included in SBARE's Research Program Priority 4,"Improving the State's Economy by Enhancing Crop Development Efforts".

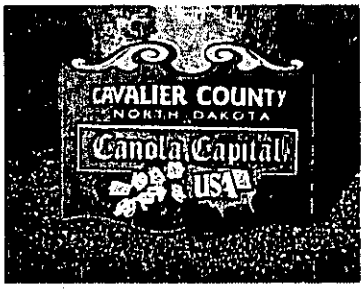
I thank you for your funding consideration and support for the Agricultural Experiment Station, Extension Services, and the REC's in HB 1020 as recommended by the Governor and consideration of further support of SBARE's research program priorities.

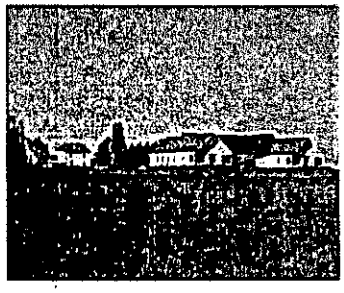
NDSU Langdon Research Extension Center Testimony – HB1020

Randy Mehlhoff, LREC Director – January 25, 2011

attachment #7
1/25/11

NDSU NORTH DAKOTA STATE UNIVERSITY





2009/11 ND Legislative Appropriation Update

- $144,000 Appropriated for Geo-Thermal Heating/Cooling System
- Total Cost was $172,000
- Completed November 2010

Research Programming Update

- Canola research expanding due to Center of Excellence for oilseed development and threat of new diseases.
- Crop pathology research is large program at Langdon and addresses disease problems on most major crops in ND.
- Foundation seed production will expand as canola breeding effort continues.
- Traditional cropping systems research (variety testing, weed control, alternative crops, etc.). continues to be in high demand by producers.

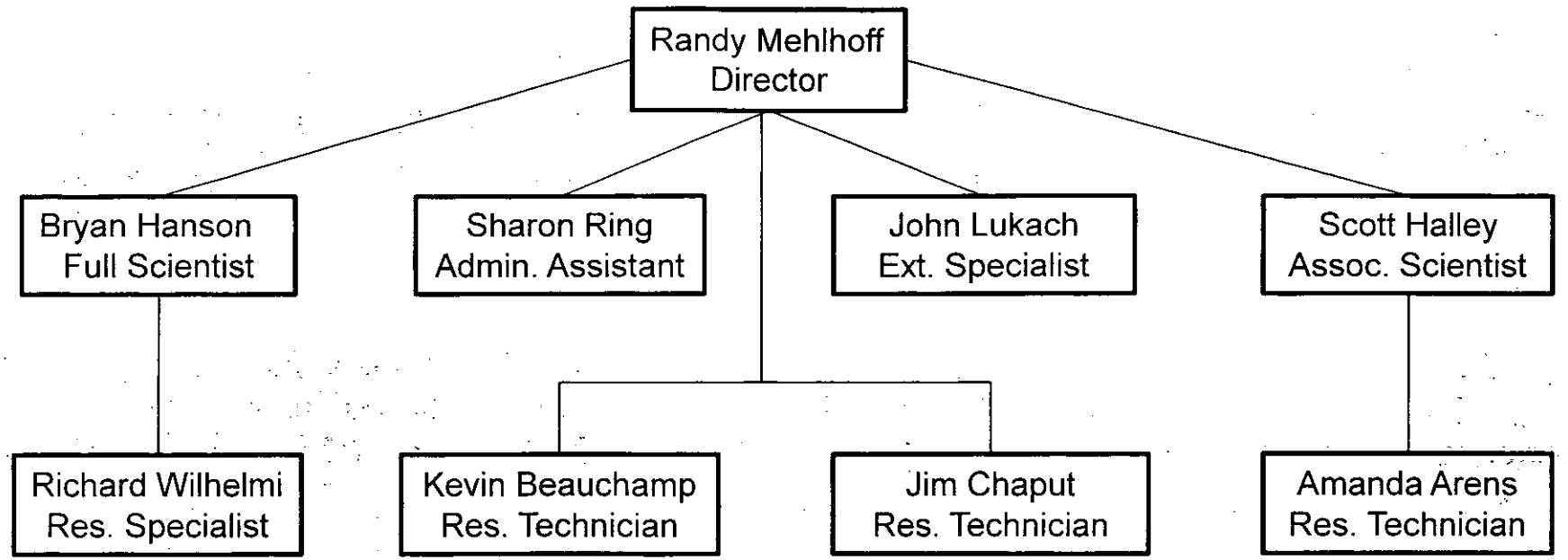
Future Research Programming Needs

- Soils specialist to address soil health. (Extension Priority # 2)
- Canola breeding and crop pathology research support. (AES Priority # 4)
- Crop protection Extension specialist to compliment crop protection scientist. (Extension Priority # 3b)

Capital Project Needs

- Agronomy/pathology research lab
- Renovation/replacement of existing seed cleaning plant.
- Extraordinary repairs funding for 100 year old research farm.

Langdon REC Organizational Chart



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- One Position is 100 percent grant funded (Extension Specialist)
- One position is 50 percent grant and 50 percent hard dollar funded (Research Technician)
- One position is 75 percent hard dollar and 25 percent grant dollar funded (Assoc. Scientist)
- We hire seven summer workers that are all grant dollar funded.

NDSU Agriculture Testimony – HB1020

Randy Mehlhoff, LREC Director – January 25, 2011

NDSU NORTH DAKOTA STATE UNIVERSITY

NDAES SBARE Priority # 4

Improving ND's Economy by Enhancing Crop Development Efforts

- Ag remains the #1 Industry in ND. This initiative will assist to keep ND a leader in ag production and ag as a major contributor to a healthy ND economy.
- For example, NDSU HRSW varieties account for 70 percent of all HRSW grown in ND. For durum, NDSU varieties account for over 70 percent of all durum grown in ND. We have found that for every $1 invested in variety development a $200 return is realized by the state of ND.
- Today, ND is recognized as the leader in canola production even though there is no permanent funding to support a canola breeding program.
- We have all become aware of the contributions NDAWN has made to our producers in helping them to make decisions that maximize yield, quality and profits in the states cropping enterprises. Mainly through disease management strategies.

- Funding of priority # 4 will help keep the ag industry strong in ND by providing support for NDAWN, canola breeding at the main station, technical support for crop disease and crop breeding efforts at the Langdon/Minot/Williston/Carrington REC's and the main station and a crop pathologist at the Williston REC.

HB 1020
North Dakota Experiment Station
1/25/11
Handout #2

Full newspaper available upon request

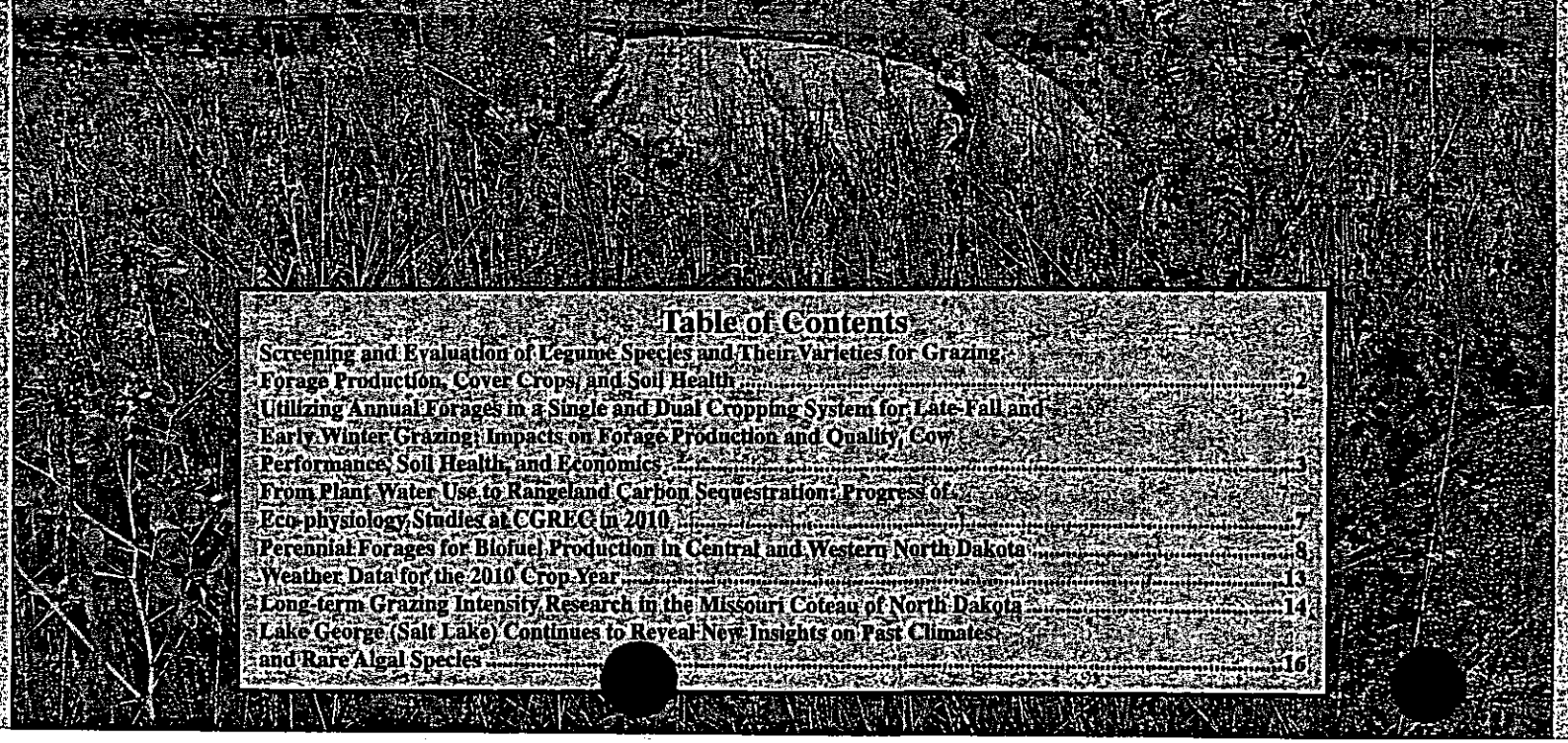
North Dakota State University

CGREC

Central Grasslands Research Extension Center

2010 Grass & Beef Research Review

"Improving and Enhancing the Natural Resources of the Coteau Region"



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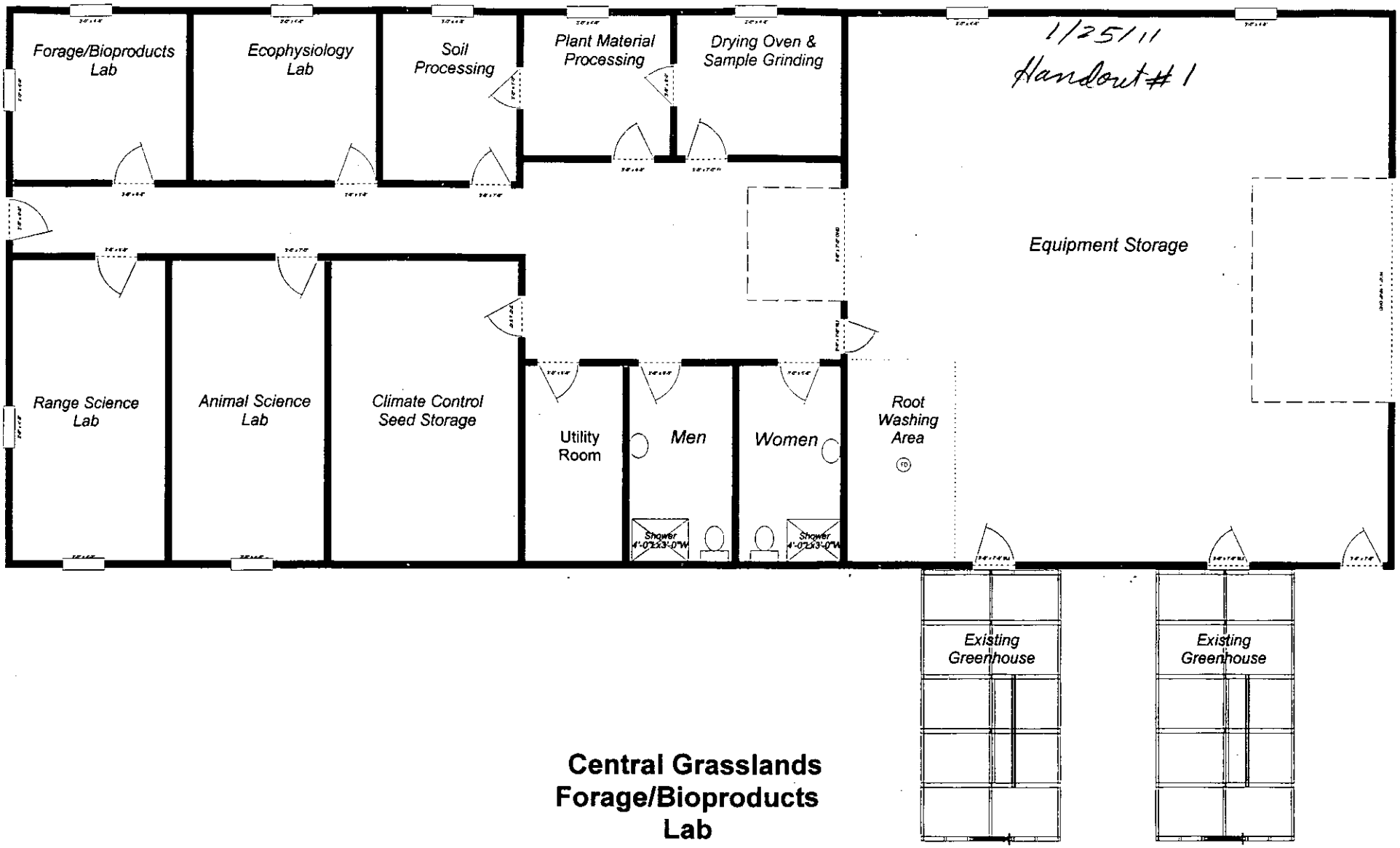
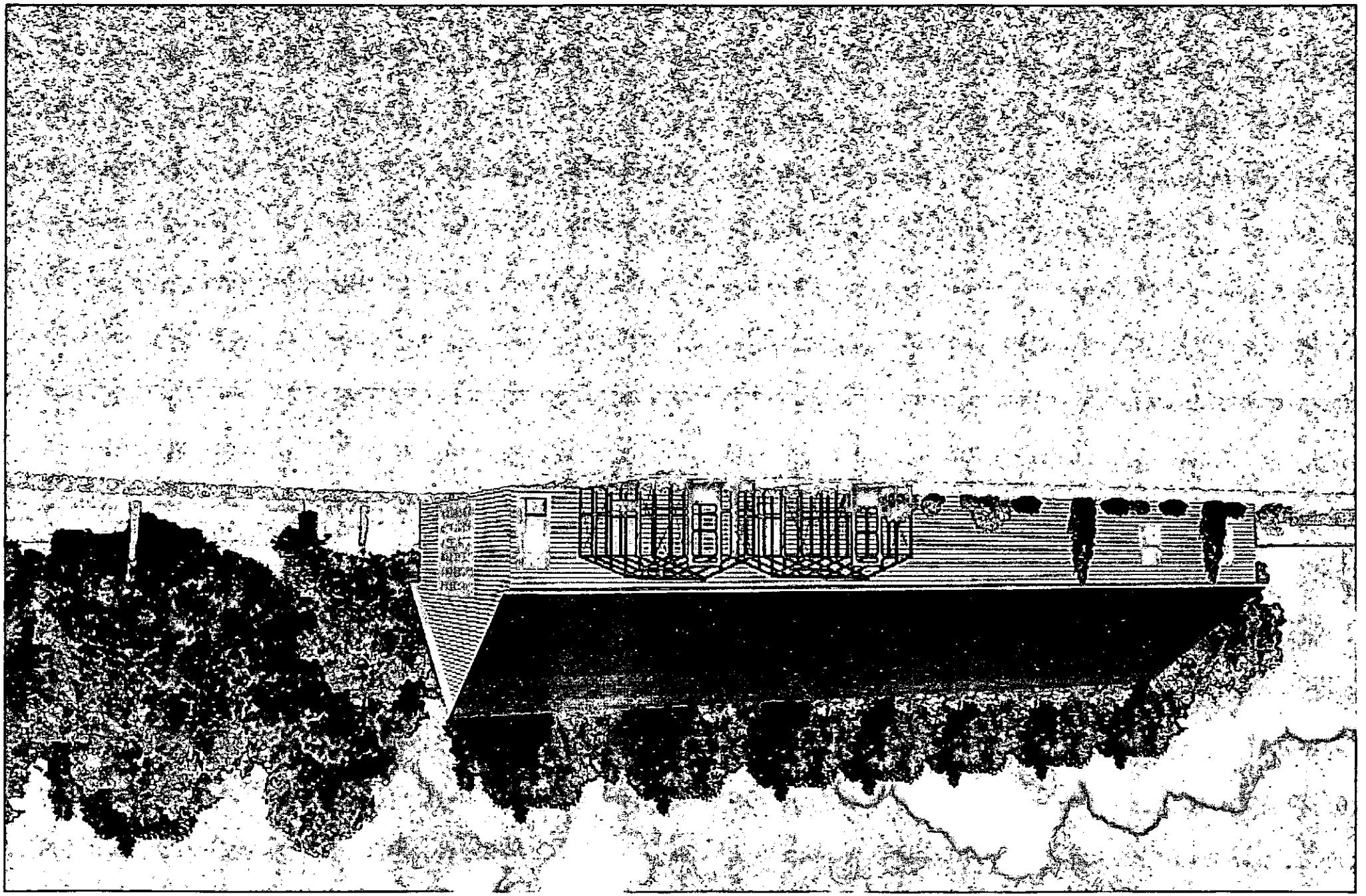
- Utilizing Annual Forages in a Single and Dual Cropping System for Late-Fall and Early-Winter Grazing: Impacts on Forage Production and Quality, Cow Performance, Soil Health, and Economics 3
- From Plant Water Use to Rangeland Carbon Sequestration: Progress of Eco-physiology Studies at CGREC in 2010 7
- Perennial Forages for Biofuel Production in Central and Western North Dakota 8
- Weather Data for the 2010 Crop Year 13
- Long-term Grazing Intensity Research in the Missouri Coteau of North Dakota 14
- Lake George (Salt Lake) Continues to Reveal New Insights on Past Climates and Rare Algal Species 16

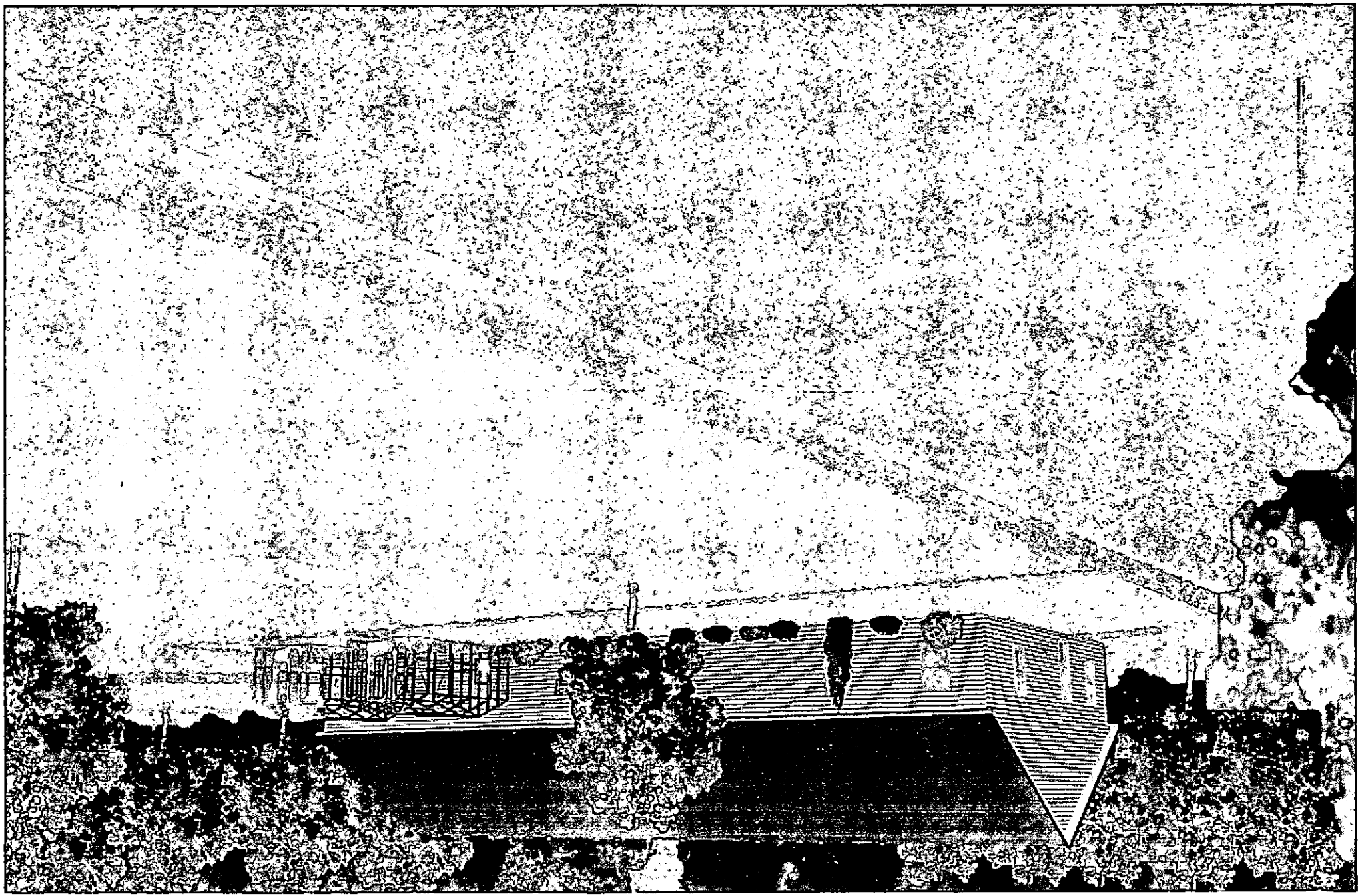
HB1020
North Dakota Experiment Station
1/25/11
Handout #1



Central Grasslands Forage/Bioproducts Lab

Lab area 40'X60'
Equipment area 40'X40'





HB1020
attachment #8
1/25/11

North Dakota AG COALITION

P.O. Box 2599
Bismarck, ND 58502
(701) 355-4458
FAX (701) 223-4645

MEMBERS

AmeriFlax
BNSF Railway Company
Independent Beef Association of North Dakota
Milk Producers Association of North Dakota, Inc.
Minn-Dak Farmers Co-op
North Dakota Ag Aviation Association
North Dakota Ag Consultants
North Dakota Agricultural Association
North Dakota Agri-Women
North Dakota Association of Agricultural Educators
North Dakota Association of Soil Conservation Districts
North Dakota Barley Council
North Dakota Beef Commission
North Dakota Corn Growers Association
North Dakota Corn Utilization Council
[illegible]akota Crop Improvement [illegible]ed Association
North Dakota Department of Agriculture
North Dakota Dry Bean Council
North Dakota Dry Edible Bean Seed Growers
North Dakota Elk Growers
North Dakota Ethanol Council
North Dakota Farm Bureau
North Dakota Farm Credit Council
North Dakota Farmers Union
North Dakota Grain Dealers Association
North Dakota Grain Growers Association
North Dakota Lamb and Wool Producers Association
North Dakota Oilseed Council
North Dakota Pork Council
North Dakota Soybean Council
North Dakota Soybean Growers Association
North Dakota State Seed Commission
North Dakota Stockmen's Association
North Dakota Wheat Commission
[illegible]akota State University [illegible]ure and University Extension
[illegible]thern Canola Growers Association
Northern Food Grade Soybean Association
Northern Plains Potato Growers Association
Northern Pulse Growers Association
Red River Valley Sugarbeet Growers

Testimony of Allan Tellmann
North Dakota Ag Coalition Chair
HB 1020

Mr. Chairman and members of the committee, my name is Allan Tellmann and I am here representing the North Dakota Ag Coalition. The Ag Coalition has provided a unified voice for North Dakota agricultural interests for over 25 years. Today, we represent more than 40 statewide organizations and associations that represent specific commodities or have a direct interest in agriculture. Through the Ag Coalition, these members seek to enhance the climate for North Dakota's agricultural producers.

The Ag Coalition takes a position on a limited number of issues brought to us by our members that have significant impact on North Dakota's agriculture industry. The Ag Coalition supports the funding of the 2011-13 SBARE priorities for the NDSU Extension Service and the North Dakota Agricultural Experiment Station as ag research and extension continue to be one of the top priorities for North Dakota's crop and livestock producers.

We appreciate your past support and would urge your continued support of research and extension as these programs provide valuable information, education and tools for the state's producers. They have been and will continue to be driving forces in the future of North Dakota's agriculture industry.

It is for these reasons we encourage your support of HB 1020.

HB 1020
attachment # 9

Northern CANOLA GROWERS Association

2718 Gateway Avenue
Suite #301
Bismarck, ND 58503
Tel: 701.223.4124
Fax: 701.223.4130
northerncanola.com

1/25/11

Testimony of Ryan Pederson

Northern Canola Growers Association

House Bill 1020

House Appropriations Committee

Education & Environment Subcommittee

January 25, 2011

Mr. Chairman, members of the committee, my name is Ryan Pederson, President of the Northern Canola Growers Association. I farm in Rolette and raise several crops, of which canola is a major portion of my crop acreage. I am here to offer support for HB 1020.

The Northern Canola Growers Association fully endorses the research and extension needs as set forth by SBARE and the ranking process undertaken by SBARE over the last 18 months. The committee does an excellent job of prioritizing the needs of agriculture and brings to the legislature a consensus-based list. I would like to direct your attention to the funding for a canola breeding program, listed under Priority 4 of the Agricultural Experiment Station.

The public breeding program for canola in North Dakota was initiated in 2006 and has recorded remarkable success in this short time. The program seeks to develop canola varieties that are suited to our growing conditions and also have yield and oil characteristics that will return more profits to the growers. Most breeding programs typically take 10 years to generate a variety for public release and this program already intends to release a new canola variety in 2011 (ND 662C) that has been identified as a promising variety with increased yield and oil content. In addition, three more varieties have been identified that have even better performance characteristics and if their performance in 2011 shows similar performance as earlier trials, they will be very high candidates for release in the near future.

We have had discussions with the canola seed industry and it fully supports a public breeding program for canola since genetic work currently being conducted by the private industry does not develop lines tailored to the North Dakota growing region. Rather, the industry develops lines suited to the Canadian climate, since Canada raises nearly 18

million acres of canola. Therefore, having a public breeding program will directly benefit the state and economic development as well.

The Northern Canola Growers Association has directed over $3 million in canola research funding over the past ten years and intends to ramp up research funding in key areas such as blackleg management and disease resistance research, end-use applications for the food and fiber industry, sclerotinia research and pod shattering. This research funding has come through the National Canola Research Program, the National Sclerotinia Initiative and the Northern Canola Growers Association. This has been a true partnership for the canola industry, but it lacks a state component as a major participant in terms of research.

Canola acres have grown in the state in the last decade and reached nearly 1.3 million acres last year, with gross receipts of nearly $475 million to growers. This makes canola the 4th largest crop in the state. In addition, canola is a highly value-added crop since nearly all canola grown in our region is processed in our region. The processing of canola generates thousands of jobs in the state both directly and indirectly.

With me today are supporters of the canola breeding program; Jon Wert, canola grower from New England, Keith Peltier, President of Proseed, West Fargo, Kevin Waslaski, canola grower from Langdon, and Eric Mack, ADM Velva.

I urge the committee to include funding for a canola breeder in this bill and recommend a do pass on the priority list of needs as outlined by the SBARE committee. I would be happy to answer any questions you may have.

HB 1020
Attachment #10
1/25/11

Testimony
North Dakota State Soil Conservation Committee
House Bill 1020
Education & Environment Division of the House Appropriations Committee
January 25, 2011

Chairman and Members of the Education & Environment Division of the House Appropriations Committee, my name is Roger Zetocha. I am the Chairman of the North Dakota State Soil Conservation Committee.

The Soil Conservation Districts are charged by the North Dakota Century Code with the conservation of soil and soil resources of the State. For the control and prevention of soil erosion, and to preserve the States natural resources, control floods, prevent impairment of dams and reservoirs, assist in the navigability of rivers, preserve wildlife, protect the tax base, protect public lands, protect and promote the health, safety and general welfare of the people of North Dakota.

With the important responsibility given it is important for the continued financial support within the NDSU Extension budget.

The State Soil Conservation Committee appreciates the funding assistance provided by the State for the Soil Conservation District Assistance Program. The Soil Conservation Districts need this funding assistance. The funding provided by the Legislative Assembly assist Soil Conservation Districts in helping landowners reduce soil erosion, improve water quality and enhance tree plantings, grazing lands and wildlife habitat. The funding helps create and maintain jobs in rural North Dakota. The Farm Security and Rural Investment Act of 2002 increased the conservation workload in all Soil Conservation Districts. Soil Conservation Districts are working hard to get landowners signed up, plans and designs developed and approved. The installation of conservation practices by participating Soil Conservation Districts has had a significant impact on North Dakota's Natural Resources.

During the current biennium the State Soil Conservation Committee allocated $837,800 appropriated to 47 local Soil Conservation Districts, who in turn, utilized the funds to strengthen the conservation programs determined by the soil conservation districts annual plan of work as reflected in their application to sustain the productivity of our natural resources. Projects and activities have include shelterbelt and windbreak tree planting, crop rotation, grazing systems, rangeland management and promotion of reduced tillage systems to name a few. The State funds have allowed more soil conservation districts to provide longer lasting career opportunities in rural communities.

The State Soil Conservation Committee has received 54 applications from Soil Conservation Districts requesting $1,310,000 for the 2011-2013 Biennium.

As this legislative session proceeds the State Soil Conservation Committee would appreciate your consideration of increased funding for the Soil Conservation Districts Assistance Program. In addition to the conservation of the natural resources, the economic viability of local communities will be enhanced with this funding.

Chairman and Members, Thank You for your support.

HB1020
attachment #11
1/25/11

HB 1020

Good morning, Chairman Skarphol and members of the House Appropriations Committee. For the record, my name is Julie Ellingson and I represent the North Dakota Stockmen's Association. I appear in support of HB 1020 today.

At our convention last fall, Stockmen's Association members endorsed the State Board of Agricultural Research and Education priorities for beef research and extension, which will enhance the competitiveness of our industry and the state's agricultural economy for future generations.

There are a couple of items of particular interest to our members:

The first item is on the experiment station side – the **"Enhancing Soil Productivity and Land Management for Future North Dakotans"** project. Among its components are rangeland research projects designed to enhance information regarding the efficient and ecologically sound use of rangelands for livestock production, wildlife, water conservation, responsible recreation and other compatible uses. We know that livestock and wildlife can live harmoniously and that grazing has positive implications for the land. But, we also know that it is not always regarded as a positive management option and that there is little scientific data about this topic from the Northern Great Plains. We think this project can help producers enhance these multi-use relationships for the benefit of all and, at the same time, generate data that will scientifically illustrate the benefits of livestock grazing in multi-use models, which will be helpful in influencing decision-makers, especially as they contemplate decisions about topics like federal

grazing permits. Preliminary, soft-funded work at the Hettinger Research Extension Center has already produced positive results. Your support of this initiative will help ensure this effort can continue at a time when grazing permits are in jeopardy of being reduced or eliminated. This project will be meaningful to both federal lands and private lands ranchers.

Another of the NDSA's priorities on the SBARE list is the **Animal Stewardship Initiative**, which is designed to address the increased scrutiny livestock production is under by animal rights activists, regulators and an ever-inquiring consumer about animal stewardship by helping producers better understand and improve animal welfare and handling techniques and to articulate to the public the positive practices they already employ. You will find this initiative included as SBARE priority 2B on the extension side and also in the governor's budget. A complimentary experiment station component also on the SBARE list was not in the governor's budget, but would provide supporting research on this topic and render the initiative even more effective, as well as investigate improved nutrition and management programs to enhance livestock production and evaluate ways to better minimize negative environmental effects, so we'd ask for your consideration of keeping the project whole if funds are available.

Again, thank you for your consideration of these livestock-industry priorities.

HB 1020
attachment #12
1/25/11

North Dakota Grain Growers Association

Your voice for wheat and barley. www.ndgga.com

North Dakota Grain Growers Association
Testimony in support of House Bill 1020
House Appropriations Committee
January 25, 2011

Mr. Chairman, members of the House Appropriations Committee, for the record my name is Dan Wogsland, Executive Director of the North Dakota Grain Growers Association (NDGGA). NDGGA appears before you today on House Bill 1020 in support of the priorities put forth by the State Board of Agricultural Research and Education (SBARE).

Research is the infrastructure of North Dakota Agriculture; Extension is information highway. Together they form a one-two "punch" that is felt around the globe. North Dakota can be very proud of its commitment in promoting the leading research and extension efforts in the nation. It is this commitment to excellence that allows North Dakota farmers and ranchers to lead the nation and the world in agriculture. The budget before you continues that very important commitment which essential to the continued success for North Dakota agriculture.

North Dakota is unique in that it allows ag stakeholders to set the research and extension agenda through the State Board Agricultural Research and Education (SBARE) process. This process is the envy of agricultural states across the nation. The members of SBARE have spent countless hours sifting through unlimited needs in order to present to you today a list of priorities for the next two and one-half years. NDGGA applauds these efforts and comes before you today to support the work of SBARE and the priority list that you have before you.

Some highlights to the budget from an NDGGA perspective. The NDSU Greenhouse project has taken research to a new level. Completion of the Greenhouse Project to provide conventional, BL-2 and BL-3 facilities is critical in the research efforts needed to keep pace in the 21st century. NDGGA has joined in efforts from the private sector in helping to fund the private match for this important facility. While our contribution is small by comparison to some, it does represent our commitment to the project.

Adequate technical support is essential to the success of research and extension efforts; researchers and extension specialists need technical support in order to do their jobs in an effective and efficient manner. The budget recognizes the need for technical support throughout the research and extension budget to address this critical need. When testifying before SBARE in the summer of 2010 NDGGA outlined technical support as a top priority for the SBARE agenda.

The saline soil issue is a vexing problem in the state; as water tables rise in the state more and more soils are impacted to the detriment of agriculture. The SBARE priorities before you today aids this research need by providing research and technical support necessary to carry out efforts aimed at solving the saline soil problem.

Crop protection is a vital component in North Dakota agriculture; as a state dependent on producing a quality product it is critically important that producers have the resources available to aid them in protecting crops from diseases and pests. Providing the resources for crop protection specialists is essential to this effort.

The Agents in Training program contained in this budget addresses the concern regarding retirements throughout the NDSU Extension Service. As stated before, Extension is the information highway for producers. With the retirement situation now faced by the Extension Service, it is necessary to provide resources for the recruitment and training for the next generation of specialists.

Mr. Chairman, members of the House Appropriations Committee, all of the priorities on the SBARE list are important; NDGGA commends the work of SBARE in assembling these priorities on behalf of North Dakota agricultural interests. NDGGA supports the SBARE budget and priority list as presented and would be open to any questions the House Appropriations Committee may have.

HB 1020
Attachment #13
1/25/11

North Dakota Soybean Growers Association

Testimony for HB 1020

Good morning Chairman Skarphol and Sub-Committee Members. My name is Scott Rising. I am here this morning on behalf of the North Dakota Soybean Growers Association.

Am here today to asking that you please support the SBARE priorities as detailed in and beyond what is currently found in HB 1020.

North Dakota farmers have raised soybeans for nearly seven decades. In 1942 they planted 7,000 acres and harvested 4,000. The average yield was 10.0 bushels per the acre. The average price was $1.67 per bushel, and the total crop's value was $66,800.

In 1950 they planted 44,000 acre, harvested 41,000 of them with an average yield of 10.5 bushels to the acre, and average price of $2.48 per bushel. The total crop's value topped $1 million for the first time. Twenty-five years later, in 1975 (not so long ago for some of us), the average price per bushel achieved $4.99. In that year, 149,000 acres were harvested, averaging 19.5 bushels per acre, and the total value of the crop topped $14 million.

The number of soybean acres continued to climb and it totaled 750,000 in 1988. The average price per bushel was $6.95 and the total value of the crop exceeded $86 million, more than six times the 1975 value, and the

second highest ever at that time. In 1989 prices fell about $1.50 per bushel and planted acres declined for seven years.

Finally in 1996 acres rebounded to 850,000 following a price increase in 1995 from $5.19 to $6.49. In 1996 the average price topped $7 and the total value of the crop exceeded $172 million for the first time. In the ensuing fourteen years, the trend line for ND's soybean total value has continued to climb. In 2010, North Dakota's soybean acreage topped 4 million acres for the first time and its total value exceeded $1,200,000,000. $1.2 Billion, with a "B", our largest crop value ever.

The success, as with most agricultural commodities, is a combination of proven research, beneficial weather, hard work, risk and more luck.

What's it worth to North Dakota?

A draft Economic Impact Study, commissioned by the ND Soybean Council, and conducted by the Department of Agricultural Economics at North Dakota State University, reveals that during the period of 2007 through 2009, the annual direct economic impact to our state of soybean production is estimated to be $1.1 Billion or about $312 per planted acre. Other directly impacted segments of our economy included Grain Handling ($27.5 million) and Transportation ($185 million total), $10.9 million and $38.9 million for truck and train, respectively, within North Dakota. So, the total direct impact is estimated to $1.2 Billion. An estimated $2 Billion in secondary impacts within North Dakota accompany the direct impacts, bringing the total to $3.2 Billion across our State.

The success of the Soybean industry in North Dakota only comes with continuous innovation through the investment in fundamental research in both commodity productivity and utilization. The ND Soybean Council has reinvested tens of millions of dollars of available state check-off funds into research projects. In 2009 over $848,000 (38%), in 2010 over $934,000 (40%), and in 2011 over $1,200,000 is committed to research projects in North Dakota and with the twelve-state North Central Soybean Research Program collaboration effort.

Fundamental research includes controlled laboratory (Greenhouse) work, soil health initiatives, and the most important ingredient, outstanding people to fill all of the required roles and bring the results to our farmers so they can fuel our economic engine. Investment in human talent, of all needed varieties, and time are critical to both the effectiveness of the research and its efficiency. The value of researchers, breeders, pathologists, dedicated technicians and able administrative people, all functioning in their appropriate roles, is the formula for our continued long- term success, at the university and in our soybean fields.

I am respectfully asking that you find a way to fund at least the top five SBARE priorities for both the Agricultural Experiment Stations and the Agricultural Extension Service. These priorities range from bricks & mortar, and the proper equipment, to the critical people & role combinations for success. Programs range from more bushels and heather plants to healthier families.

Thank You for your attention today and your service to North Dakota.

Successful research efforts brought us from 7,000 acres to over 4 million and a total economic impact from a little to over $3 Billion. Research is about the future . . . it is about creating it!

I'd be happy to field questions that you may have of me.
Thank You again.

Contact Information:
Scott Rising
701-527-1073 (cell)
grwbeans@earthlink.net

HB 1020
Attachment #14
1/25/11

North Dakota Irrigation Association

P.O. Box 2254
Bismarck, ND 58502
701-223-4615, 701-223-4645 (fax)
e-mail: ndirrigation@btinet.net

Dedicated to strenghtening and expanding irrigation to build and diversify our economy.

Testimony on House Bill No. 1020

House Committee on Appropriations
Education and Environment Division

Robert Vivatson, Chairman, North Dakota Irrigation Association
9:00 a.m. January 25, 2011

Mr. Chairman and members of the committee my name is Milton Lindvig with the North Dakota Irrigation Association. I am appearing on behalf of Robert Vivatson, Chairman of the Association, who could not be here today due to a previous commitment.

The North Dakota Irrigation Association is particularly interested in the proposed initiative related to research and management of saline soils. Since the beginning of the wet period in 1993, the expansion of saline soil conditions has been unprecedented and adverse affects have also occurred on irrigated soils. This initiative will also provide the basis for developing a greater understanding for the management of land currently irrigated and provide a better basis for developing new irrigation. The Irrigation Association supports the creation of this program.

Irrigated soil types are generally classified as irrigable to conditionally irrigable. For irrigation use, the chemical quality of the water applied ranges from excellent to very marginal and in some cases unsuitable by conventional standards. It is estimated that approximately 20 to 30 percent of the land rated conditional is irrigated with water of marginal chemical quality. As more land is developed for irrigation, marginal quality water and conditional soils will be a significant part of the new acreage.

The interaction of the applied water to various types of soil found in North Dakota is poorly understood. Through the years some monitoring of irrigated soils has taken place along with some isolated research in the form of graduate theses. However, our knowledge of soil and water compatibility is incomplete. The technical parameters for evaluating water quality and soil types were derived more than 60 years ago in a desert climate using a gravity or flood irrigation system. Most of the irrigation in the State now uses center pivot sprinkler systems. The current standards for determining soil and water compatibility are not adequate for making informed long term development and management decisions. The proposed program related to saline soils is a huge step forward in meeting that need.

Therefore the North Dakota Irrigation Association urges your support of HB 1020 and the related funding for the management and research of saline soils.

HB1020
Attachment #16
1/25/11

SUPPORT A NORTH DAKOTA STATE BUDGET ITEM WITH IMMEDIATE R.O.I.

A new seed conditioning plant at the North Central Research Extension Center in Minot will keep North Dakota at the forefront of the agriculture industry, providing a strong return on investment from day #1.

"Investment in assets at the NCREC facilities will have a lasting impact on the success of profitable and sustainable crop production in northwest North Dakota."
– SunPrairie Grain

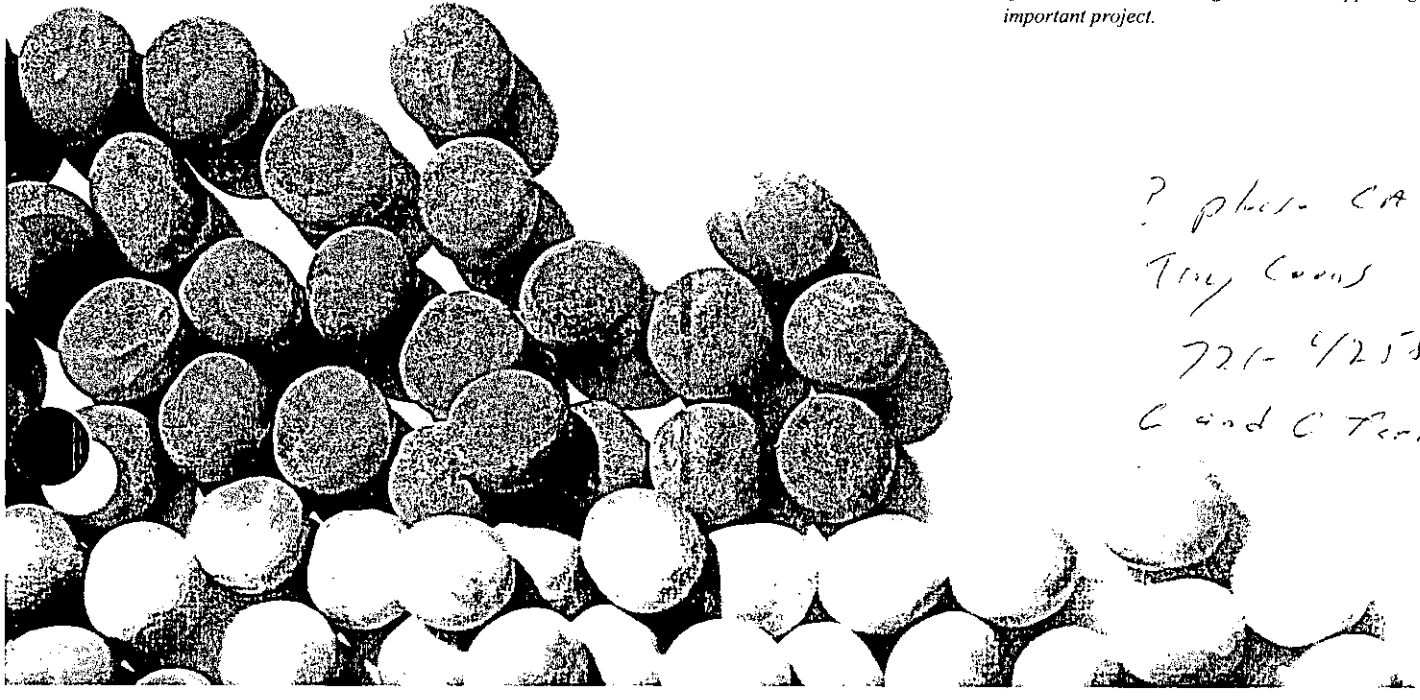
The North Central Research Extension Center (NCREC) in Minot (a division of NDSU) and area producers have identified the need for a new, one story, high side-wall, foundation-grade seed conditioning facility capable of gently handling pulse crops, oil seeds and other crops.

This project is needed for the Foundation Seedstocks ›gram (FSS) which provides genetically pure foundation seed to the ND agriculture industry, with an average of ten to twelve different crops, and over 30 different varieties within those crops. Genetic diversity requires accurate and timely conditioning, and thus the equipment needs to be geared to handle the large volumes.

The present FSS facility, originally built in 1949 and expanded in 1982, is small, inefficient and insufficient for current seed production. It is a health and safety problem due to inadequate dust handling. Without modern technology, it is not equipped to handle the growing demand for pulse crops and oil seeds without excessive seed damage.

"Minot is a center hub for durum production in ND. USDGA therefore, strongly urges you to improve the facilities at the Minot REC."
– U.S. Durum Growers Association

See the back of this page for quick facts and a list of individuals and organizations supporting this important project.



Please call
Troy Coons
701-451-5258
C and C Farms

North Central Research Extension Center Seed Conditioning Project

The new facility will include state-of-the-art sorting equipment and other efficiencies.

- Electronic eye seed sorting equipment
- A series of modern seed conditioning machines
- Pure-seed conveyors and elevators
- Explosion proof fixtures
- Dust handling equipment

A new seed conditioning plant at Minot should be funded in the state budget.

- There is significant support in the area from producers, industry partners and businesses.
- This $3 million project has been approved by SBARE and is a part of higher education recommendations.
- Minot currently produces the largest diversity of seed varieties.
- NCREC provides foundation seed in a 32 county area and to 320 active seed customers.
- The NCREC has a proven track record of producing high quality seed for producers in the region.
- When new crop varieties are released, they provide immediate new wealth to North Dakota. Several new varieties together generated more than $75 million farm-gate income in 2009.
- In general, $1 invested in variety development generates over $200 in return to the state. Foundation seed conditioning facilities are crucial in this process.

Agriculture is the #1 industry in the state. As #1 we shouldn't get by. We should lead.

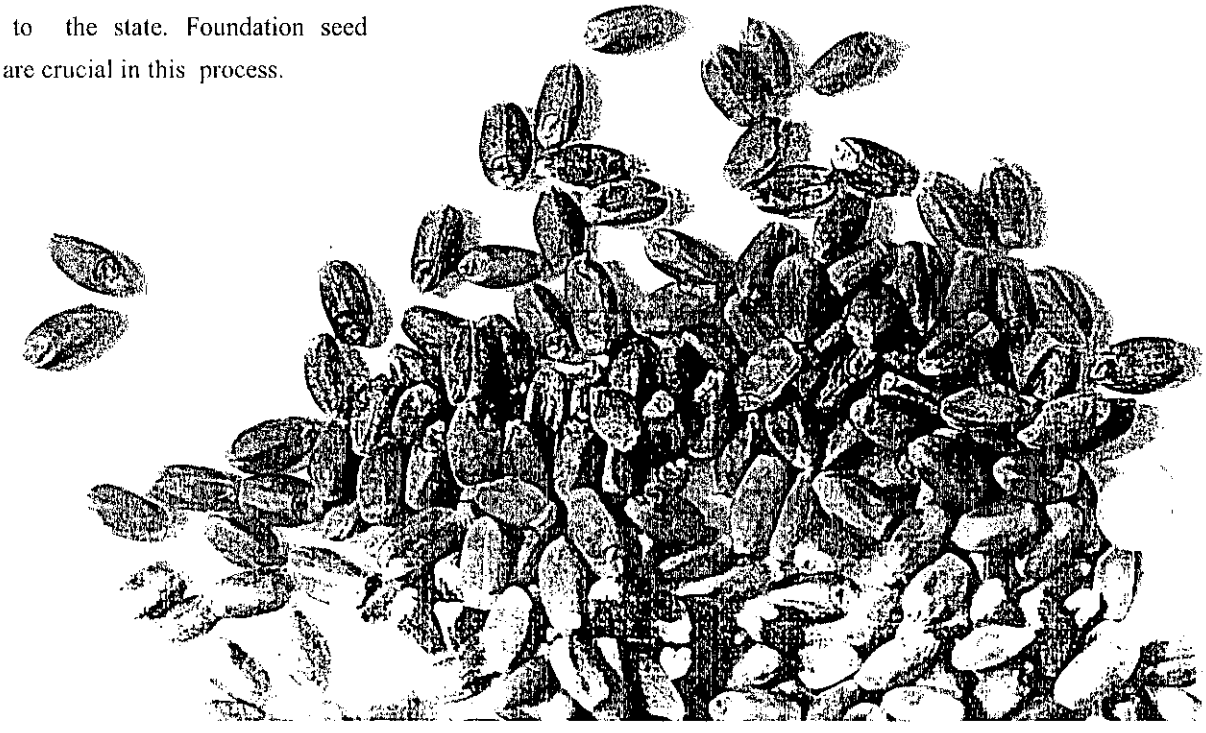
- Foundation Seedstocks facilities allow hands-on education on conditioning equipment.
- Modern conditioning equipment allows precise separation of genetically clean seed from impurities, other crop seed and weed seed. Clean seeds go straight to producers for planting.

This fact sheet provided by

NDSU ALUMNI OF THE MINOT AREA

Support and endorsements by

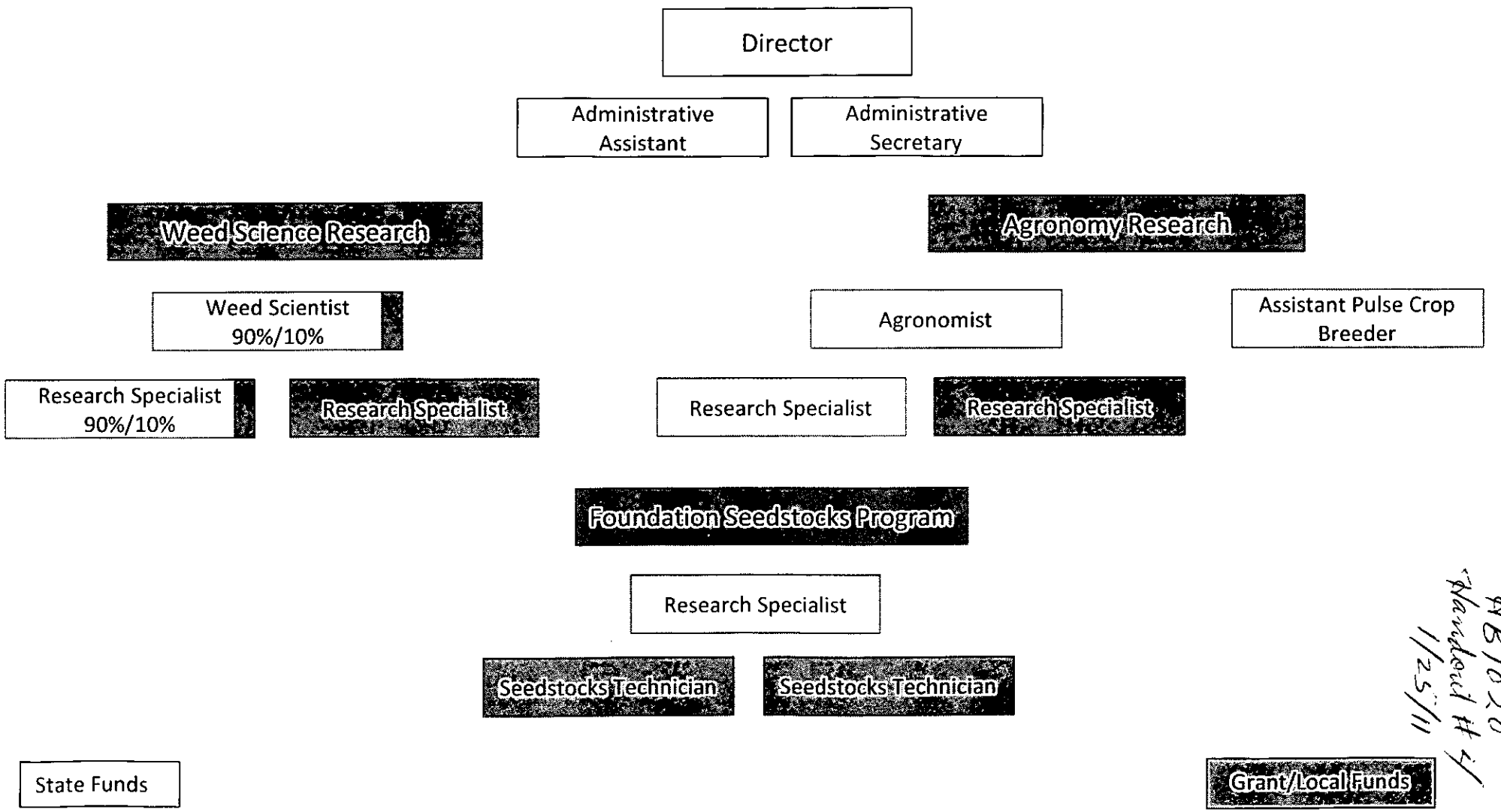
North Dakota Crop Improvement & Seed Association; SunPrairie Grain; U.S. Durum Growers Association; Verendrye Electric Cooperative; Ward County Ag Improvement Association; Del Gates, Mohall area producer; Mark Birdsall, Berthold area producer; Tim Bryan, Bowbells area produce Troy Coons, Donnybrook area producer; Dean Zaderaka, Max area produ Don Streifel, Washburn area producer; Wayne Johnson, Stanley area producer; NDSU Board of Visitors from Benson County, Bottineau County, Burke County, McHenry County, McLean County, Mountrail County, Pierce County, Renville County, Rolette County, Sheridan County, Ward County, Wells County.



North Central Research Extension Center

Research (AES) Staffing

State and Grant/Local Funds



HB 1020
Rowland #4
1/25/11

1/18/2011

Prepared by the Legislative Council staff
for House Appropriations - Education and
Environment Division
February 9 , 2011

LISTING OF PROPOSED CHANGES TO HOUSE BILL NO. 1020

Proposed funding changes:

	Description	FTE	General Fund	Special Funds	Total
1	Increases funding for operations at the Dickinson Research Center from the Permanent oil tax trust fund **(Approved by Committee)**			$800,000	$800,000
2	Increase funding for SBARE request #4 - enhancing canola crop development efforts **(Approved by Committee)**:				
	1 FTE - Breeder at the Main Station	1	$210,000		$210,000
	2 FTE - A technician at the Main Station and a specialist at NCREC to be funded by special funds potentially from Canola Growers Association, Monsanto, or royalties on seed.	2		$280,000	$280,000
3	Increase funding for SBARE request # 9 - state data center **(Approved by Committee)**	1	$125,000		$125,000
	Total proposed funding changes		$335,000	$1,080,000	$1,415,000

Other proposed changes:

1

2

3

4

HB 1020
Attachment #1
2/10/11

HB 1020
attachment #1
2/10/11

Other Funds —

Extension Service, Main and Branch Research Centers, Northern Crops Institute and Agronomy Seed Farm

Reconciliation of 2009-11 Original Appropriation to 2011-13 Executive Recommendation (HB 1020)

	(1) Extension Service	(2) Main Research Center	(3) Branch Research Centers	(4) NCI	(5) Agronomy Seed Farm	(6) Total
2009-11 Original Other Fund Appropriation	$25,928,877	$45,713,267	$15,191,816	$1,598,265	$1,275,238	$89,707,463
2007-09 capital assets carryover		2,911,096				2,911,096
2009-11 Adjusted OF Appropriation	25,928,877	48,624,363	15,191,816	1,598,265	1,275,238	92,618,559
Base Adjustments:						
Less 2007-09 OF Carryover		(2,911,096)				(2,911,096)
Less 2009-11 One-time Funding			(925,000)			(925,000)
Less 2009-11 Capital Projects		(700,000)	(350,000)			(1,050,000)
2009-11 Adjusted Appropriation, Less Base Adjustments	25,928,877	45,013,267	13,916,816	1,598,265	1,275,238	87,732,463
Executive Recommendation Base Increases (Decreases):						
Cost to continue FY2011 salary increases	311,820	325,877	60,742	11,499	9,791	719,729
Retirement rate correction - Pay plan	(720,652)	(644,800)	(61,739)	(5,458)	(11,328)	(1,443,977)
Compensation package (3% per year) and health insurance increases	740,067	635,648	172,504	14,052	26,615	1,588,886
2011-13 Capital projects		2,502,931				2,502,931
Other changes in estimated income	(3,131,302)	(3,859,348)	789,258	36,367	134,852	(6,030,173)
Total requested increases (decreases)	(2,800,067)	(1,039,692)	960,765	56,460	159,930	(2,662,604)
2011-13 Total Executive Recommendation - Other Funds	$23,128,810	$43,973,575	$14,877,581	$1,654,725	$1,435,168	$85,069,859

attachment #3
HB 1020
2/10/11

DETAILS: 2011-2013 Program and Infrastructure Needs as Ranked by SBARE

N.D. Agricultural Experiment Station

1. Greenhouse Utilities

$173,622 Total General Fund Increase

The NDAES is requesting funding for the additional utility costs associated with the second phase of greenhouse construction.

2. Enhancing Soil Productivity and Land Management for Future North Dakotans

$1,410,000 Total General Fund Increase

$570,000 salary and fringe benefits 1.0 FTE, Main Station – SNRS and 2.0 FTE research scientists (HREC, CREC)

$120,000 Operating

$720,000 salary and fringe benefits, 6.0 FTE, research support staff (HREC, CREC, WREC, CGREC, SNRS, ABEN)

North Dakota is blessed with many natural resources. Of these resources, our productive soils are one of the most important, and one that can be impacted positively to serve future North Dakotans. Managing soils has changed dramatically over the last 30 years. Efforts to reduce wind erosion brought about adoption of minimum tillage techniques that proved highly successful by retaining crop residue on the surface and reducing erosion. More recently, no-till systems have become very popular in many areas of the state. However, several areas of soil management have been neglected, resulting in the expansion of saline and sodic soils and declining soil fertility. Obtaining a better understanding of the soil microbial populations that impact (both positively and negatively) plant productivity is critically important to the farmers and ranchers in the state. Saline soils account for approximately 10.25 million acres in North Dakota, with sodicity affecting an additional 3.4 million acres. These affected soils reduce plant growth (both crop and range plants) by 25% even if symptoms are not evident. Lost productivity in the Red River Valley alone is estimated to range from $10-20 million annually; similar estimates exist for lost productivity in other areas of the state. What has not been estimated is the lost productivity of livestock production when pastures and rangeland are affected. Identifying ways to better manage lands for recreation, wildlife, grazing, and farming represents new opportunities for land-owners and managers to be successful. Better management practices that improve both productivity and overall economic activity are critical to allowing our state to remain competitive in this global economy.

Water and fertility issues also affect soil health and land management. Developing improved waste management systems and utilizing animal waste both play a major role in improving both soil fertility and soil tilth, but, if managed improperly, will affect both ground and surface water. Identifying better ways to manage livestock waste that enhances soil health is of critical importance to conserve and improve our soils and maintain productivity. Using appropriate crops or other plant species concurrently is being identified as a way to improve soil health in the region. Much of this information is anecdotal; appropriate research is needed to understand the mechanisms that may benefit our soils throughout the state.

HB 1020
Handout #1
2/10/11

The UGPTI would like to include in its testimony for HB 1020 the following statement as required by Section 2 of SB2020:

Use of one-time funding received in 09-11:

In 2009, the North Dakota Legislature authorized the expenditure of $3 million for construction of the Center for Transportation Studies under SB2020. No state funds were appropriated for this project. This authorization was requested in anticipation that federal funding might be made available for the construction of the center. NDSU and the Upper Great Plains Transportation Institute were not awarded federal funding for this project and consequently no expenditures for construction have occurred under the 2009 authorization.

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Handout #2
HB1020
2/10/11

NDSU Extension
Parent Resource Center
Funding Breakdown by
FY 2011 Budget

Funding Source	Amount	%
General Fund		
Annual Allocation from General Fund	$ 125,000	16.2%
Other Funds		
Nurturing Parent Program	$ 162,930	
Community-Based Child Abuse Prevention	165,240	
PRC Network Grant	50,000	
PRC Enhancement Grant	100,000	
Developmental Disabilities Grant	27,000	
NDSU Development Foundation Grant	20,000	
Additional Grants	119,380	
	$ 644,550	83.8%
Grand Total	$ 769,550	100.0%

NDSU
Extension Service
North Dakota State University

Grants and Contracts received by the NDSU Extension Service for Parent Resource Center programming for 2009-2011 biennium

Nurturing Parent Program — $325,860—$162,930/year

Source of funds: Federal dollars through the Department of Human Services (DHS) (Child Abuse and Neglect Basic Grant)

16-week program open to any family but specifically targets parents who have been referred for prevention education. Program works with both parents and children. The NDSU Extension Service receives salary funding for a .5 FTE overall coordinator and remaining funds are for actual program delivery across the state. These funds can only be spent on the Nurturing Parent program.

Community-Based Child Abuse Prevention (CBCAP) — $330,480—$165,240/year

Source of funds: Federal dollars through DHS (CBCAP grant and 4b Family Support)

CBCAP funds are used to target primary prevention education work with families at the community level. All classes must be open to all families and be free of charge. The grant allows a specified dollar amount to be used toward salary and fringe benefits, which is equivalent to approximately .15 FTE in each region, and the remaining amount to be used to deliver research-based programs that have proven impacts/outcomes. The PRC's have a list of programs that qualify and deliver them through the Parent Resource Centers. DHS has a contract with the NDSU Extension Service to deliver programs through the PRC Network. This grant has been entrusted to the PRC Network with the provision that we do all we can to cover each region in the state.

PRC Network Grant — $100,000—$50,000/year (one-time grant)

Source of funds: Federal dollars through DHS (CBCAP grant and 4b Family Support)

CBCAP funds are used to target primary prevention education work with families at the community level. These dollars are used to bring consistent training and programming to each region in the state.

PRC Enhancement Grant — $100,000 (one-time grant)

Source of funds: Federal dollars through DHS (CBCAP grant and 4b Family Support)

Additional CBCAP federal funds were provided to enhance programming during the 2010-2011 program year. The purpose of the grant is to target rural communities served by each PRC. All classes must be open to all families, be free of charge and be research-based programs that have proven impacts/outcomes.

Developmental Disabilities Council Grant — $27,000 (one-time grant)

Source of funds: Federal dollars through DHS (Disabilities Fund)

NDSU Extension Service/Minot PRC is developing specific curricula for parents with developmental disabilities. This new curricula will eventually be used across the state. Dollars allow us to hire expertise needed to create the new curricula (competitive grant).

NDSU Development Foundation Grant — $20,000 (one-time grant)

Source of funds: Donations to NDSU Development Foundation

The NDSU Development Foundation Community-Based grants (competitive) are used to fund projects that extend the university into the Fargo community. The Region 5 PRC, located at Cass County, is delivering special programs to limited resource and new immigrant families in the Madison school district.

Additional Grants received by each PRC through local opportunities

Each PRC works with local grantors such as United Way, School Districts, and other nonprofits to secure additional operating funds. Two school districts currently contribute salary dollars (Grand Forks/$44,880 and Dickinson/$32,500—annual amount) toward a PRC coordinator. Williams County is currently on record as willing to provide 50% salary if we can obtain funding for the other 50% salary/benefits to serve their Region 1 needs (no programming is delivered there at this time).

Another grant was received from the ND Parent Involvement Center in Minot (PIRC: federal funds from Department of Education) for a total of $84,000 among participating PRC's to develop and research the Gearing Up program over the past 2 years (no salary dollars for staff—all funding to pay for Gearing Up program delivery and research).

The current legislative request is for salary dollars to secure the PRC coordinator position in each of the 8 regions. Additional grants such as the ones listed here can be obtained if we have coordinators in place.

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HB1020

NORTH DAKOTA AGRICULTURAL EXPERIMENT STATION AND NDSU EXTENSION SERVICE

NORTH DAKOTA STATE UNIVERSITY

2011-2013 Biennial Budget Request

House Bill 1020

Jan. 25, 2011

NDSU Extension Service - Budget No. 630
North Dakota Agricultural Experiment Station
- Main Station - Budget No. 640
- Branch Research Extension Centers - Budget No. 628
- Agronomy Seed Farm - Budget No. 649

Dean L. Bresciani – President, North Dakota State University
Rodney Howe – Chair, State Board of Agricultural Research and Education
D. C. Coston – Vice President for Agriculture and University Extension, NDSU
Duane Hauck – Director, NDSU Extension Service
Ken Grafton – Director, North Dakota Agricultural Experiment Station
Kris Ringwall – Director, Dickinson Research Extension Center
Paul Nyren – Director, Central Grasslands Research Extension Center
Chris Schauer – Director, Hettinger Research Extension Center
[redacted] Mehlhoff – Director, Langdon Research Extension Center
[redacted]r – Director, North Central Research Extension Center
[redacted] Bergman – Director, Williston Research Extension Center
Blaine Schatz – Director, Carrington Research Extension Center
Tom Teigen – Director, Agronomy Seed Farm

www.ndsu.edu/legislators

Grow 21:

Enhancing North Dakota's Economy Through Agriculture

Agriculture in North Dakota continues to be a remarkable success story and a vital cornerstone of the state's economy. Farmers, ranchers and agribusiness leaders are remarkably innovative and creative in seeking opportunities and finding new ways of operating their enterprises. Agriculture is dramatically different than it was a few short years ago. It will be dramatically different in a few short years.

These enterprises require continued development of new knowledge and technology and ongoing education to assure continued success. The North Dakota Agricultural Experiment Station (NDAES) and the NDSU Extension Service (NDSUES) have been and will continue to be major sources for the innovation and support to keep North Dakota's agriculture at the leading edge.

Much of agriculture occurs in rural areas. Farming and the success of rural communities have become inextricably linked. In North Dakota, they are mutually dependent. In our state, healthy communities are essential for the success of agriculture and agriculture is essential for the success of rural communities. Numerous studies across rural America, including North Dakota, find that the majority of farm family income is derived from off-farm sources. An essential key to the continued success of agriculture is assuring that communities remain successful and vibrant with numerous successful enterprises and quality of life. In North Dakota, much of this development will emerge from agricultural and natural resource-based opportunities.

In preparation for the North Dakota legislative assembly, we met with scores of organizations and hundreds of citizens across North Dakota, asking them to describe what they want this state to be like in 2025. With the guidance and support of the State Board of Agricultural Research and Education, the NDAES and NDSUES propose "GROW 21: Enhancing North Dakota's Economy through Agriculture" as the approach for addressing the vital issues raised above.

We have continued to have discussions with organizations, leaders and individual citizens and continue to get enthusiastic feedback that the GROW 21 focus on healthy communities is a solid strategy.

Briefly, GROW 21 says the focus in the coming years must be on communities and that a healthy community has three essential attributes: a diverse and resilient economy; an effective, efficient infrastructure; and leadership. If a community is missing any of these, it is in trouble. These are outlined briefly below:

■ Diverse, Resilient Economy

A community must not "put all its eggs in one basket." Rather, it needs multiple sources of income that provide a buffer when one sector of the economy may be down. As we look to the future, certainly enhancing agricultural production will be essential, but not sufficient. Significant opportunities exist to add value to raw products; explore new enterprises;

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develop new markets; produce renewable energy and bioproducts; and find multiple uses for land where, in addition to agricultural production, there are tourism and recreational businesses and potential to enhance the manufacturing of devices developed for agricultural applications. All of these hold significant promise for North Dakota's rural areas. Some of these efforts will be developed through large-scale enterprises and some through the activity of entrepreneurs.

■ Effective, Efficient Infrastructure

Traditional infrastructure (roads, water, electricity, phones, etc.) continue to be vital. In the future, equally important will be access to high-speed broadband digital communications, adequate health care, youth and family development, local planning and access to capital. Through the dispersed system of the Extension Service, NDSU can play catalytic roles in helping communities be positioned for future success. Research and Extension activities also are critical components of infrastructure throughout the state. To improve our capacity to serve North Dakota, the infrastructure capacity of the NDAES and NDSU Extension Service needs to be enhanced. Additional funding for support staffing, equipment pools, operating funds and information specialists are needed. This investment will ensure that the NDAES and NDSU Extension Service remain a highly respected source of technology, products and information needed to allow our producers to remain competitive in a global market.

■ Leadership

Without local citizens who have skills and feel confident that they can make a difference, a community will not be successful. Many North Dakota communities possess a desire to have a bright future, but they do not have a cadre of citizens who have the skills and feel empowered to effectively plan and carry out programs and activities that will lead to future success.

In preparation for the 2011 legislative session, the State Board of Agricultural Research and Education reaffirmed the importance of the GROW 21 approach. Many groups and individuals from North Dakota agriculture and rural communities came before SBARE with concepts and ideas. Numerous others provided written comments. SBARE asked Experiment Station and Extension leadership to synthesize the large amount of input into approaches. The materials included herein are the result of listening to North Dakota citizens; drawing on the insights of our scientists, specialists and staff; and SBARE's careful and well-studied prioritizing of investments that will make great differences for North Dakota in the next generation.

These initiatives hold great promise for enhancing North Dakota's rural economies through continuing the innovation that has made North Dakota's agriculture so successful while concurrently providing the information and technologies for new rural enterprises and successful rural communities.

AGENCY OVERVIEW

NDSU Extension Service

Agency Statutory Authority

North Dakota Century Code Chapter 4-08.

Agency Description

The North Dakota State University (NDSU) Extension Service is part of a nationwide, university-based educational system that provides research-based educational programs to citizens in all 53 counties and four American Indian reservations in North Dakota. Programs focus on selected needs and issues affecting the state's agriculture, youth, families, communities and natural resources. The staff is located at state, area and local/county offices. The NDSU Extension Service combines funding from federal, state, county and grant sources to specifically address local concerns.

Agency Mission Statement

The purpose of the NDSU Extension Service is "to create learning partnerships that help youth and adults enhance their lives and communities." This purpose is accomplished through the dissemination of research-based information and the implementation of educational programs geared to the changing needs of North Dakotans. Major program areas include agriculture and natural resources; youth development; family and consumer sciences; and community economic development and leadership.

Agency Performance Measures

Per NDCC 4-05.1-19, the State Board of Agricultural Research and Education (SBARE) presents a status report to the budget section of the Legislative Council. SBARE's most recent presentation to the budget section was on March 11, 2010. The report they gave and provided in written form included the status of the North Dakota Agricultural Experiment Station and the NDSU Extension Service. A copy of the information is on file in the Legislative Council office.

Agency Future Critical Issues

Areas that need continued emphasis and emerging issue areas that need to be addressed include educational assistance and technical support for North Dakota rural communities impacted by oil, coal and bioenergy development; youth development through expanded 4-H efforts in leadership education, science, engineering and technology, and the camping program as a 4-H delivery method; childhood obesity; sustainable energy; food safety; technical support to help plant science specialists with applied research activities; soil health and land management; livestock stewardship; agents-in-training and the summer internship program; crop protection to address crop yield and quality looses due to plant pests; technical support for Web tool development; agricultural entrepreneurship and rural business transition; parent education; identity-preserved and specialty agriculture; and increased operating.

NDSU
Extension Service

NDSU Extension Service

Update of Extension Inititatives Funded in 2009-11 Budget

■ **Costs to continue FY2009 salary increase**

$291,554 received and allocated July 1, 2009

■ **Extension Operating Support**

$300,000 received and distributed July 1, 2009

■ **Crop Disease Management**

$52,332 received to fund one position

- Plant pathology area specialist, Carrington Research Extension Center, hired effective June 1, 2010
- 70 percent Experiment Station, 30 percent Extension
- Primary focus: crop disease research and education in central North Dakota

■ **4-H Leadership Education and Camping**

$220,000 received to fund one position

- State 4-H specialist, Minot, hired effective July 6, 2010
- Primary focus: youth education, leadership development, 4-H camping, citizenship

■ **Agribusiness Enterprise and Rural Development**

$240,000 received to fund one position

- Rural and agribusiness enterprise development specialist, Bismarck, hired effective June 2, 2010
- Primary focus: agribusiness development, rural entrepreneurship, business retention and expansion

Glenn Muske, NDSU Extension rural and agribusiness enterprise development specialist, points out information to help agribusinesses get started.

Update of Initiatives Funded in 2009-11: NDSU Extension Service

■ Agents-in-training and Interns

$100,000 received for salary support effective July 1, 2009

- Funds were leveraged with county monies to hire two agents-in-training
- Experience provides stronger candidate pool for Extension agent positions

■ State Soil Conservation Committee

$100,000 received

- Funded grants to Soil Conservation Districts
- Help landowners reduce soil erosion; improve water quality; and enhance tree plantings, grazing lands and wildlife habitat

■ Junior Master Gardener Program

$40,000 received

- Supported the cost of educational materials and supplies used for special projects and demonstrations
- Program has expanded to more than 1,200 youth in 34 counties in 2010 alone, with the majority third- to fifth-graders
- The program teaches youth how to grow vegetables for their families' use, to sell and for local food pantries; helps them understand the value of native crops and evaluate new produce varieties; and involves youth in hands-on service learning through community beautification projects

■ Parenting Resource Centers

$125,000 received for salary support for parenting coordinators across the state effective July 1, 2009. This was in addition to the $125,000 received in FY07, for a total of $250,000 per biennium.

- Funds received were used to leverage $941,140 in grants and contracts for the biennium
- Extension provides leadership for a Parent Education Network of professionals across the state that delivers educational programs for families

The Junior Master Gardener program gives youth hands-on experience in growing vegetables and shows them how they can help reduce hunger in the state.

NDSU Extension Service
North Dakota State University

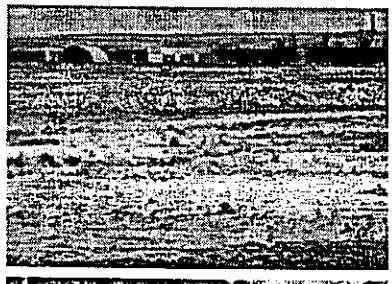
NDSU Extension Service

2011-13 Program and Infrastructure Needs as Ranked by SBARE

1. Infrastructure: Technical Support

Situation: Extension specialists are one deep, work with multiple crops and programs, and undertake significant applied research activities. Programs can be expanded efficiently with additional technical support.

Need: Technical support in Plant Sciences, Plant Pathology, Entomology and Nutrition – $450,000



2a. Soil Health and Land Management

Situation: Saline and sodic soils affect 25 percent (12.6 million acres) of North Dakota agricultural land. Many land managers are considering expensive land modifications, such as tiling, to deal with this issue or nonconventional cover crops as a means to improve soil health.

Need: Additional Extension soils and land management staff at NDSU, LREC and NCREC – $690,000

2b. Livestock Stewardship

Situation: Livestock production is under increasing scrutiny, and producers face many challenges. Animal welfare and humane animal handling are increasingly important to consumers and the livestock industry. Several states are passing laws intended to define the proper care and treatment of animals.

Need: Additional staffing in Animal Sciences – $250,000

3a. Agents-in-Training and Summer Internship Program

Situation: The NDSU Extension Service could experience historic levels of retirements in the next few years. The complexity of Extension work can be extremely challenging for new hires. Agent-in-training positions have helped equip candidates with the skills needed to be successful, and summer internships also have proven to be an effective recruiting tool.

Need: Salary support for internships and training positions – $500,000

3b. Crop Protection

Situation: The wide variety of crops grown in North Dakota, along with the significant diversity in growing conditions that exist across the state, makes covering the specific needs of every region very difficult for Extension specialists. Crop diseases, weeds and insects all present unique challenges in various regions across the state.

Need: Crop protection area specialists at HREC and LREC – $440,000

Continued

NDSU Extension Service

2011-13 Program and Infrastructure Needs as Ranked by SBARE (continued)

4a. Infrastructure: Information Technology

Situation: The Extension staff utilizes a variety of Web tools to work together on information to share with clients. Extension also has launched a national Web presence that provides a foundation for Extension educators to collaborate and educate nationally.

Need: Salary support for Agricultural Communication technician – $150,000

4b. Agricultural Entrepreneurship and Rural Business Transition

Situation: North Dakota's rural economy requires increased entrepreneurial activity plus the retention of existing businesses for continued growth. Many North Dakota farm, ranch and rural business owners are aging and contemplating retirement. Transition planning is a critical need to sustain local ownership and maintain continued existence of farms, ranches and rural businesses.

Need: Additional staffing in Agribusiness and Applied Economics – $500,000

5. Health, Wealth and Quality of Life for North Dakotans

Situation: Social capital investments yield economic savings and increased quality of life for North Dakotans. Recent statewide hearings concluded that parent and early childhood education is a significant need in the state. Research shows that the "Gearing Up for Kindergarten" program is just one example of a parenting program that can address this need effectively.

Need: Salary support for the Parent Resource Center network – $500,000

6. Identity-preserved and Specialty Agriculture

Situation: Specialty agricultural systems are gaining interest from food consumers. The concept of "local foods" also is gaining interest in many communities. And many producers are exploring the production and marketing of food grade crops that require strict identity-preservation protocols.

Need: Additional area staffing at DREC and another location to be determined – $440,000

7. Infrastructure: Operating

Situation: Nine Extension state staff, along with support staff, are located at three different office locations in Bismarck. This arrangement is inefficient in utilizing support staff, office equipment and work flow, and it provides very limited public visibility.

Need: Operating support for office rent – $80,000

DETAILS: 2011-2013 Program and Infrastructure Needs as Ranked by SBARE

NDSU Extension Service

1. Infrastructure: Technical Support

$450,000 Total General Fund Increase
$150,000 salary support, no new FTE, technician shared by Plant Sciences and Plant Pathology
$150,000 salary support, no new FTE, technician, Entomology
$150,000 salary support, no new FTE, technician, Nutrition

NDSU Extension is one deep in most state specialist positions. While most states have multiple Extension specialists dealing with just one crop, NDSU's specialists are responsible for multiple crops. Extension specialists also undertake significant applied research to support their Extension work. Consequently, NDSU Extension specialists need technical support to help with applied research activities along with effective Extension program delivery.

2a. Soil Health and Land Management

$690,000 Total General Fund Increase
$210,000 salary and fringe benefits, 1.0 new FTE, salinity/sodicity specialist, Natural Resource Sciences
$360,000 salary and fringe benefits, 2.0 new FTEs, area specialists at the LREC and NCREC
$120,000 operating

Saline and sodic soils affect 25 percent (12.6 million acres) of North Dakota agricultural land. Salinity may affect up to 2 million acres of Red River Valley soils alone. These affected soils reduce both range and crop plant growth even if symptoms are not evident. Soil chemical, physical and biological properties underlie all crop decisions that agricultural producers make. Soil properties help prescribe which crops to grow, what rotation to use and the potential productivity. Plants absorb water or water evaporates from the soil leaving behind salts in the soil water that eventually produce levels toxic to vegetation. Poor drainage and/or poor irrigation water cause the salinity buildup. Years of higher-than-average rainfall leads to shallow ground water depth and movement of this water and its salts to the soil surface. Plants are less able to absorb water when there are high salt levels in the soil. Growth reductions occur as the salinity level in the soil increases.

Many land managers are considering expensive land modifications, such as tiling, to deal with this issue. Some are utilizing non-conventional cover crops as a means to improve soil health. NDSU Extension has a history of providing this type of support, however current staffing is not adequate to address this emerging need. More Extension soils and land management help is needed.

2b. Livestock Stewardship

$250,000 Total General Fund Increase
$210,000 salary and fringe benefits, 1.0 new FTE, Animal Sciences
$40,000 operating

Livestock production, which is very important to North Dakota's economy, is under increasing scrutiny, and producers face many challenges including rising production costs, increased accountability in the area of animal welfare/animal rights, biosecurity and environmental concerns. Animal welfare and humane animal handling are increasingly important to consumers and the livestock industry. Several states are passing laws intended to define the proper care and treatment of animals. Funding for this initiative would enable Extension to provide proactive education that would address potential concerns in these areas.

a. Agents-in-Training and Summer Internship Program

$500,000 Total General Fund Increase
$400,000 salary and fringe benefits, 4.0 new FTEs, agents-in-training located throughout North Dakota
$100,000 salary support, no new FTE, 5 college internships for summer programming

NDSU Extension could experience historic levels of retirements in the next few years with 36% of counties having Extension agents who are or will be eligible for retirement in the next five years. The complexity of Extension work can be extremely challenging for recent college graduates who make up the majority of the hiring pool. Agent-in-training positions have proven to be a successful avenue for equipping candidates with the skills needed to be successful as an Extension agent. Summer internships have also proven to be an effective means of recruiting students to consider Extension careers. Funding support is needed for the agent-in-training and summer internship programs which both provide needed program support at the county level.

3b. Crop Protection

$440,000 Total General Fund Increase
$360,000 salary and fringe benefits, 2.0 new FTEs, area specialists, HREC and LREC
$80,000 operating

The magnitude and consistency of crop yield and quality losses due to plant pests is a persistent problem, and it continues to increase. The wide variety of crops grown in North Dakota, along with the significant diversity in growing conditions that exists across the state, makes it very difficult for Extension specialists to cover the specific needs of every region. Crop diseases present significant issues in northeastern North Dakota while weeds and insects, like wheat stem sawfly, present significant issues in the southwest. Failure to control these pests cost producers millions of dollars in lost crop yield and quality. Funding to expand educational opportunities in crop protection is needed.

4a. Infrastructure: Information Technology

$150,000 Total General Fund Increase
$150,000 salary support, no new FTE, technician, Agriculture Communication

North Dakotans' use of the Web for collaboration and information is rapidly increasing. The Extension staff is using a variety of Web tools to work together to develop information and to share information with clients via distance education. eXtension (pronounced E-Extension) provides the foundation to collaborate and educate nationally. NDSU Agriculture Communication is understaffed to support these needs.

4b. Agricultural Entrepreneurship and Rural Business Transition

$500,000 Total General Fund Increase
$420,000 salary and fringe benefits, 2.0 new FTEs, state specialists, Agribusiness and Applied Economics
$80,000 operating

North Dakota's rural economy requires increased entrepreneurial activity plus the retention of existing businesses for continued growth. While individuals or groups possess the ideas and motivation to pursue rural business ventures, they lack the knowledge, training, skill set, and, many times, local support required to successfully implement their vision. This program would provide agricultural entrepreneurs with the knowledge needed to confront the challenges of starting and/or operating an ongoing business, plus the skills to manage the added complexity of introducing or refining a new process, product or service.

Many North Dakota farm, ranch and rural business owners are also aging and contemplating retirement. A recent Extension program found that about 50% of attending farmers had not planned for the transition of the ownership of their farm/ranch business. To sustain local ownership and maintain continued existence of rural businesses, transition planning is a critical need in rural communities.

This initiative would provide the planning and skill sets needed by agricultural entrepreneurs to start or expand rural businesses and provide education to both entering and exiting farm, ranch and rural business owners and managers to make their business transition successful. Funding of this initiative would complete the "Institute of Agribusiness Enterprise and Rural Development" that was partially funded in the 2009 legislative session.

5. Health, Wealth and Quality of Life for North Dakotans

$500,000 Total General Fund Increase
$500,000 salary support, no new FTE, for Parent Resource Center network

Social capital investments yield economic savings and increased quality of life for North Dakotans. Recent statewide hearings concluded that parent education is a significant need in the state, and the Parent Resource Center network is the only entity offering consistent, prevention education programming across the entire state. NDSU Extension has taken leadership in developing the "Parent Education Center Network." Limited state funding received in the FY 2007 and FY 2009 legislative sessions has been leveraged with grants/contracts. Additional funding is needed to secure a regional presence, and investing in regional centers makes it possible to secure more grants and contracts.

6. Identity-preserved and Specialty Agriculture

$440,000 State General Fund Increase
$180,000 salary support, no new FTE, area specialist, DREC
$180,000 salary and fringe benefits, 1.0 new FTE, area specialist, NDSU Extension Service
$80,000 operating

Specialty agricultural systems are gaining interest from food consumers, and interest in sustainable agriculture is growing. While sustainable agriculture can be defined many ways, most agree that it encompasses cultural and agricultural practices that ensure the health and diversity of the land and the life it supports. The concept of "local foods" is also gaining interest in many communities. And many producers are exploring the production and marketing of food grade crops that require strict identity-preservation protocols. NDSU Extension is currently able to provide only minimal educational support to farmers and ranchers who seek information about these types of specialty agricultural systems. Funding is needed to boost educational efforts in these areas.

7. Infrastructure: Operating

$80,000 Total General Fund Increase
$80,000 operating for Extension office at Bismarck

Nine Extension state staff, along with support staff, are located at three different office locations in Bismarck. This arrangement is inefficient in utilizing support staff, office equipment and work flow, and it provides very limited public visibility. A more efficient office arrangement and adequate meeting space is needed.

NDSU Extension Service

2009-11 Impacts

Through its research-based educational programs, the NDSU Extension Service strives to:

- *Enhance the profitability of North Dakota's crop and livestock producers by focusing on production, marketing and risk management issues*
- *Conserve and enhance the natural resources of our state*
- *Develop life skills within North Dakota's youth through 4-H youth development programs that focus on decision making, communication skills, career development and healthy lifestyles*
- *Strengthen individual and family skills relating to parenting, school readiness, financial management, work force preparation and communication*
- *Maintain a healthy food system at the production, distribution and consumer levels while promoting healthy lifestyles for all age groups*
- *Provide leadership for communities and community leaders to identify strengths, enhance local expertise and increase the rural economic base while creating an environment that fosters entrepreneurship*
- *Guide communities through processes that relate to public issues*
- *Serve as educational leaders in the adoption and utilization of technology for economic, community and individual benefits*

Extension agents and specialists had more than 1.1 million face-to-face educational contacts with North Dakota residents in 2009-10 in these areas:

- *Community, Economic Development and Leadership*
- *Crop Management*
- *Farm and Family Economics*
- *4-H Youth Development*
- *Horticulture and Forestry*
- *Human Development and Family Science*
- *Livestock Management*
- *Natural Resources and Environmental Management*
- *Nutrition, Food Safety and Health*

Community, Economic Development and Leadership

Rural and Agribusiness Enterprise Development

This new Extension program focuses on the development of agribusiness enterprises by assisting individual entrepreneurs with starting or expanding their business, and by the development and delivery of a broad-based educational outreach program for potential entrepreneurs. Two primary areas that have had the greatest interest and have potential for expansion are agritourism and value-added agriculture. Interest in the production of specialty foods and food-based products, especially in the areas of horticulture and community-supported agriculture, also is growing. Connecting producers to markets also is a function of this position.

Horizons Program

The Horizons program, delivered by the NDSU Extension Service, was designed to build community leadership and capacity to address poverty and other challenging issues in 46 rural and reservation communities. The program was implemented from 2003 to 2010, and all communities were responsible to complete a community conversation and leadership training, then take action on issues affecting their towns. Because of Horizons, new leaders, including youth and those in American Indian Reservation communities, are running for office. Volunteers in the program generated 11,460 volunteer hours valued at $171,671, and North Dakota communities have raised more than $1.8 million on their own to sustain their local actions on issues.

Rural Leadership North Dakota (RLND)

The NDSU Extension Service created the RLND program in 2003 to prepare and develop effective leaders to strengthen rural communities. Fifty-five North Dakotans have participated in the 18-month statewide leadership program from 2003 to 2010. Leadership skills in those 55 alumni have increased more than 30 percent. Alumni and current participants have increased their confidence to do more in their communities and have impacted their communities positively through projects they have led. Project impacts include increased tourism, improved quality of life and economic benefits to the community such as alumni starting their own businesses, the city of Arthur retaining an employer that moved into a new facility, the largest Aktion Club (a Kiwanis Club for handicapped individuals) in the world starting in Fargo, a fitness center project and four-plex remodeling project starting in Hannaford, day-care facilities opening, and establishing a charitable trust that raised enough money to build an indoor hockey arena for children.

Residents of Watford City, Stanley and Dickinson learn the value of collaboration during a Rural Leadership North Dakota short course in Watford City.

■ Crop Management

Wheat Nitrogen Recommendations

North Dakota's old nitrogen recommendations for spring and durum wheat were developed during the 1960s and early 1970s. The NDSU Extension Service released new recommendations for 2010. Those recommendations are based on the "return to nitrogen" concept that considers the relationship of wheat yield to nitrogen rate, soil test nitrogen, credits from previous crops, the relationship of wheat grain protein to nitrogen rate and the cost of nitrogen. Under the new recommendations, higher nitrogen rates are recommended to increase profits when wheat prices are high or nitrogen costs are low. We project that if half of North Dakota's wheat growers use the new recommendations, the result should be about 10 percent more yield and 1 percent more protein than they would have otherwise. Under this scenario, the annual net benefit could total about $148 million.

Wheat Fusarium Head Blight (FHB) Management

Wheat FHB (or head scab) is a disease that has the potential to cause severe yield and quality losses in North Dakota wheat. The NDSU Extension Service provides information and demonstrates strategies that reduce FHB. As a consequence of education, surveyed wheat producers indicated that 80 percent of them use resistant varieties and fungicides for FHB management and 72 percent use crop rotation. Seventy percent of these same wheat producers indicated that Extension meetings were the top source of their FHB management information. An applied research trial indicated that a combination of three management strategies - rotation, use of resistant varieties and application of a fungicide - gave $120/acre more return over not managing for FHB. The adoption of key FHB management practices is high among well-informed wheat producers. As a consequence, the adoption of these practices has created in excess of $150 million in additional annual returns to North Dakota wheat growers and helps to protect this $1.9 billion North Dakota industry.

Soybean Production

Soybean acres in North Dakota increased from 1.9 million to 3.9 million acres from 2000 through 2009. Due to this increased interest in soybean production, new growers needed education about all aspects of soybean production. The NDSU Extension Service state specialists, area agronomists and county agents offered "Getting it Right" soybean production meetings (sponsored by the North Dakota Soybean Council), developed resource materials and hosted field days to assist growers with soybean production. Growers increased their knowledge and management skills in numerous areas ranging from variety and maturity selection to iron chlorosis and spray timing of weeds under North Dakota's growing conditions. As a consequence of good management and favorable weather, growers were expected to harvest 36 bushels per acre in 2010 - a state record. The economic benefit of successful soybean production in North Dakota resulted in cash receipts of $1 billion to growers in 2009, which will be exceeded in 2010.

North Dakota's IPM Scouting Program

Each year, diseases and pests attack North Dakota's crops. And each year, a handful of trained scouts help producers fight back by surveying fields for the pests that could threaten crops. These scouts are a key part of NDSU Extension's Integrated Pest Management (IPM) crop survey program. During the growing season, the scouts collect information that gives producers and the rest of the agricultural industry a weekly snapshot of the presence of insects and diseases, how widespread they are, where they're concentrated and the economic damage they've caused. The information helps producers determine if chemical control is needed and the best timing. The IPM scouts cover 15 million crop acres and operate out of NDSU's Research Extension Centers in Carrington, Dickinson and Minot, and the Main Station in Fargo. They survey wheat, barley, soybean, canola and sunflower crops in all of the state's 53 counties.

NDSU Integrated Pest Management crop survey program scout Suanne Kallis evaluates a field of barley for head scab occurrence and severity.

■ Farm and Family Economics

Outlook Conference for Agricultural Lenders

Agricultural lending is critical to the operation of farms in North Dakota. During 2009, the average farm enrolled in the North Dakota Farm Business Management Education program borrowed $420,000. A daylong conference was developed by NDSU Extension economists to help agricultural lenders better understand the fast-changing economic environment in which their customers operate. In 2010, information on commodity markets, government policy, farm family living costs, risk management, value-added opportunities and recent farm financial performance was presented at four locations. The 282 attendees came from locally owned, regional and national banks; Farm Credit Services; credit unions; and the Farm Service Agency.

Farm Program Education

The 2008 farm bill introduced a new program option called Average Crop Revenue Election (ACRE). Extension agricultural economists developed the ACRE Analyzer computer program to help producers with the enrollment decision, and organized and conducted ACRE train-the-trainer sessions attended by county agents, farm business management instructors and Farm Service Agency employees. Presentations also were made to 764 producers at 15 meetings throughout the state in 2009. Several news releases and interviews were conducted to provide information on ACRE. Lastly, three videos, "ACRE Basics," "ACRE Analyzer Tutorial" and "Should I Sign up for ACRE?" were produced to help producers with the complicated sign-up decision.

North Dakota Annie's Project

The number of women managing farms and ranches in North Dakota and across the U.S. is increasing, but women frequently indicate that many of the traditional educational programs on farm management and agricultural risks can be intimidating for them. Annie's Project, a multistate educational program designed to empower women to become better business partners, was developed to help fill the need. It is a six-week program that addresses five primary areas of agricultural risks: human, legal, production, financial and marketing. In 2010, it was presented to 77 women by Extension specialists and local experts at seven locations across the state during weekly three-hour sessions. Since this project was initiated in North Dakota in 2006, more than 1,000 women have participated. These women have a better understanding of farm and ranch financial recordkeeping and financial measures, grain and livestock marketing strategies, and the importance of developing a strategic plan for their operation.

Accounting for Farm, Home and Business

Financial recordkeeping is important to the success of businesses and the financial well-being of households. People also need to understand the income statement, balance sheet and cash-flow budget. Extension specialists developed a daylong computer hands-on workshop so the learner could, by the end of the day, be able to set up a recordkeeping system, enter transactions, run reports and better understand financial statements. Quicken or Quickbooks software and a bank of laptop computers were used. The program was held at seven locations throughout the state in 2010. In the past 16 years, more than 3,000 people have attended this training.

High School Financial Planning Program

North Dakota students graduating in spring 2011 and later are mandated to have taken a personal finance curriculum as a result of legislation passed during the 2009 legislative session. For the past 20 years, NDSU Extension has partnered with the National Endowment for Financial Education (NEFE) High School Financial Planning Program (HSFPP) to provide research-based educational materials to students and educators at no charge. A series of lesson plans was developed from these materials to specifically address the topics required in North Dakota's legislation. Several teacher training programs were offered throughout the state in summer 2010 to help teachers use this program to meet the new legislation. Nearly 40 educators participated in the NDSU Extension trainings. A shorter version of the training provided at the Invest North Dakota Teachers Academy at the University of Mary in July (sponsored by the North Dakota Securities Department annually) reached another 75 educators. Key findings from the 2003-04 national evaluation of the NEFE HSFPP:

- 78 percent reported confidence in making decisions that deal with money three months after completing the program
- 59 percent had improved their spending habits
- 60 percent had improved their savings habits

■ 4-H Youth Development

North Dakota 4-H Shooting Sports Program

The North Dakota 4-H Shooting Sports program, officially launched in 2001, has grown to serve more than 2,500 North Dakota youth. The program is accomplished through 20 state instructor/trainers in six disciplines and more than 450 certified discipline instructors who contributed in excess of 1,800 volunteer hours to the program. Program partnerships include the North Dakota Bowhunters Association, North Dakota Turkey Federation, American Legion, sportsmen's clubs, after-school programs and schools districts across the state. The focus of all 4-H programs is the development of youth as individuals and as responsible and productive citizens. The 4-H Shooting Sports Program achieves this through youth learning marksmanship, the safe and responsible use of firearms, and the principles of hunting and archery. The program's activities and the support of caring adult leaders provide young people with opportunities to develop life skills, self-worth and conservation ethics.

Teaching Science Through Technology

4-H science, engineering and technology programs reach almost 12,000 rural and urban North Dakota youth a year through hands-on learning experiences that encourage young minds and develop young leaders proficient in science, engineering and technology work force skills. These experiences are supported by more than 3,000 volunteers dedicated to placing 4-H youth on a path toward successful careers. We accomplish this by using educational materials that enhance interest and skill development in a variety of science areas, engineering and technology. Examples of technology-related 4-H project materials include aerospace, computers, electricity, geospatial, wind and robotics. Programming is offered via a variety of delivery methods, including 4-H clubs, after-school programming, school enrichment and camping, and it is supported through a variety of public and private local, regional and national financial sponsors. 4-H science's most visible effort has been 4-H National Youth Science Day. The 2009 experiment related to bioenergy, and the 2010 experiment taught youth about water quality and climate change. 4-H National Youth Science Day is an important annual part of 4-H's "One Million New Scientists. One Million New Ideas" campaign, with a national goal of attracting 1 million new youth to science, engineering and technology programs conducted by 4-H.

Continued

North Dakota youth participate in the 2010 4-H National Youth Science Day experiment on water quality and climate change.

■ 4-H Youth Development (continued)

Statewide 4-H Camping Program

Youth development research points to the significant benefits of involving young people in a camping experience. The camp setting provides an excellent opportunity to experience positive youth development through exposure to caring adults, practicing independence, learning mastery through life-skill development opportunities and generosity toward others. The camp setting also uniquely provides many experiential activities under the mentorship and supervision of Extension staff and adult volunteers. The North Dakota 4-H program provides these opportunities through residential (overnight) and day camping experiences. The day camp offerings range from working with animals to geospatial to filmmaking activities through the use of flip video cameras.

The 4-H residential camp experiences provide an opportunity for youth to use technology skills, learn outdoor activities, build social skills and learn independence. The Western North Dakota 4-H Camp is the hub of 4-H residential camping activity; it is offering 7 theme camps in 2011. About 30 Extension staff and another 30 adult volunteers serve as the adult leaders who work with youth during the course of the summer. In the evaluation of the 2010 camp season:

- 99.9 percent of the campers rated the camps as good to excellent
- 99 percent of the parents who responded to our survey (98 percent return rate) rated the camp experience as good to excellent
- 85 percent of the parents reported they noticed an impact on independence in their children
- 75 percent of parents indicated their child was more resourceful after camp

Additional residential camps provided by the 4-H program include the Extension Youth Conference on the NDSU campus and Aerospace Camp in partnership with the UND Aerospace Sciences program.

4-H Youth Citizenship Program Developing

North Dakota 4-H always has provided citizenship programming as an aspect of its program. The call for re-visiting the mission focus for citizenship in 4-H and the addition of a new position through the 2009 legislative session to specifically develop this effort mean that greater strides are able to be made in this content area. Katie Tyler, who joined the NDSU Extension Service as a 4-H youth development specialist in July 2010, is at the North Central Research Extension Center at Minot and is providing leadership for the development of a more effective 4-H youth citizenship program. Key focus areas being developed include civic engagement, service, civic education, personal development and leadership, along with 4-H camping support.

Junior Master Gardener Program

Junior Master Gardener (JMG) programs involving more than 1,200 youth were conducted in 34 counties. Each program involved the local community utilizing the JMG curriculum resource. More than 30 community partners, including representation from schools, religious groups and garden/horticulture clubs, were identified as working with the local Extension offices to conduct the program. Program impacts include:

- In Grand Forks County, as part of a community service project, the Junior Master Gardeners donated more than 116 pounds of their produce to the Hunger Free North Dakota Garden Project.
- Pembina County reported a community service component where youth planted and cared for planters at the senior citizens center porch, and they gave flower arrangements to the senior kitchen. It resulted in a rich intergenerational experience because the seniors visited with the youth about the garden in their backyard.

Horticulture and Forestry

Gardening Saturdays

As the appetite for horticultural information grows, NDSU Extension Service horticulturists and agents responded with 20 spring gardening meetings, often called Gardening Saturdays, in 2010. As many as 24 horticultural topics are covered during the events. Subjects have included square foot gardening, lawn care, tree selections and maintenance, annual and perennial flower selections, landscape design principles, propagation techniques, fruits and vegetables for the home gardener, hardy roses, ornamental grasses, beekeeping, container gardening, home winemaking, growing grapes for winemaking, terrarium construction, houseplant care, and selecting and solving common horticultural problems. Participants also can get information from various vendor booths set up at each event. NDSU Extension personnel were event coordinators and instructors. Several events also benefited from the expertise provided by the 2007 legislative investment in a new horticultural position at Bismarck, which was filled by Tom Kalb.

Supporting Vegetable Gardening

Home vegetable gardens are sources of nutritious food and provide enjoyment and exercise. In 2009 and 2010, more than 700 North Dakota families participated in a program to select superior varieties of vegetables. Gardeners in the program select varieties from more than 40 different vegetables. That includes everything from asparagus to zucchini. The gardeners evaluate varieties for plant vigor, health, earliness, yield and quality. The NDSU Extension Service supports increased vegetable production in the state by providing growers with research-based information on variety performance. The best way to determine the best varieties for home gardeners is to test them under actual home garden conditions. North Dakota gardeners grow more than $30 million in produce each year, which is encouraged through this program and can be increased substantially as more superior varieties are grown.

Fighting Tree Pests in North Dakota

Although native forests cover only a small portion of North Dakota, trees provide critical services to both rural landowners and the state's communities as windbreaks and shade trees. With the threat posed by the emerald ash borer to green ash trees, maintaining the trees we have is vital. The NDSU Extension Service, in cooperation with the North Dakota Forest Service, has offered a series of workshops on tree pest management to more than 900 natural resource professionals and homeowners in the past two years. In most of North Dakota, trees primarily protect farmsteads, reduce soil erosion and provide livestock shelter in rural areas. In urban areas, trees increase summer shade, and improve storm water and snow management. The value of these services rarely is estimated for individual landowners or communities. NDSU Extension, along with the North Dakota Department of Agriculture, North Dakota Forest Service and U.S. Department of Agriculture's Animal and Plant Health Inspection Service, is a key partner in statewide preparations for the emerald ash borer.

Tom Kalb, NDSU Extension horticulturist for western North Dakota, teaches gardeners about the variety of vegetables that can be grown in the state.

■ Human Development and Family Science

Gearing Up for Kindergarten

Gearing Up for Kindergarten is a school readiness and parent involvement opportunity for parents and their 4-year-old child who will be entering kindergarten the following year. The objectives of the program target school readiness for children, parent education, early academic awareness and intervention as needed, parent involvement and building home-school-community partnerships. School readiness is becoming a key topic for programming because research indicates that being ready for kindergarten makes a significant difference in educational outcomes, and one key is the level of parental involvement in the program. This program combines both student and parental education. Participants who completed the program were compared with a control group of families who did not complete the program. Results indicated that:

- 85 percent said the program was very or extremely useful to them.
- Parents and children who participated in the program showed significant increases in 12 of 13 measures of parenting and child school readiness, compared with nonparticipants.
- Social skill development was three times higher and emotional skill development was two times higher in children who participated than those who did not.
- Familiarity with numbers was four times higher, and familiarity with the alphabet (academic skills) was 2.5 times higher for children who participated compared with those who did not.

Children learn some skills that will help them be better prepared when they start kindergarten.

■ Livestock Management

Barbecue Boot Camps

The NDSU BBQ Boot Camp program was launched in 2009 to bring meat science and food safety information to consumers in their community in a fun and informative way. The team delivers information regarding the meat and livestock industry, food safety and preparing food in breakout "stations." Stations include spices and marinades, slow cooking, grilling, degree of doneness and food safety/human nutrition. The program includes various facts and statistics about current livestock and meat production, animal welfare, NDSU and other important information about agriculture. Attendance totaled about 1,900 participants in 17 locations combined across 2009 and 2010. North Dakotans increased their knowledge of the meat and livestock industry, and indicated they will improve their food handling practices as a result of participating in the program. Overall, 99 percent of these consumers stated that their knowledge of meat and livestock topics and barbecuing skills improved from attending a BBQ Boot Camp.

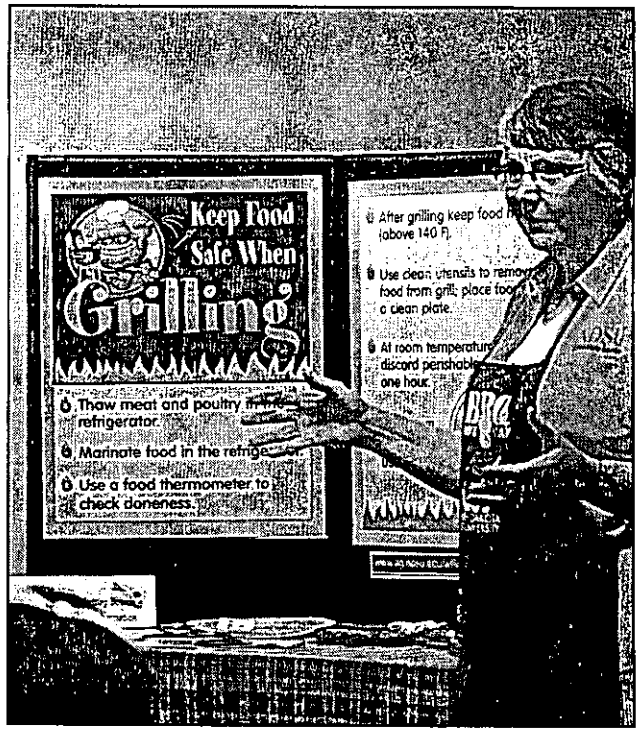
Beef Quality Assurance

The mission of the North Dakota Beef Quality Assurance (BQA) program is to maximize consumer confidence in and acceptance of beef by focusing the producers' attention on daily production practices that affect the safety, wholesomeness and quality of beef. The NDSU Extension Service staff educates beef and dairy producers and youth involved in livestock projects on topics ranging from practices to improve cattle care to farm/ranch biosecurity. More than 1,900 producers have been BQA-certified through the program. Certified producers annually produce more than 415,000 head of calves, which is more than 45 percent of North Dakota's calf crop. In the fall of 2010, the value of this production was estimated to be more than $249 million. Additionally, many North Dakota BQA-certified producers report receiving a premium for their calves and that their operations are more profitable because of their involvement in the North Dakota BQA program.

Dairy Diagnostic Program

The North Dakota Dairy Diagnostic Program helps dairy families develop management skills and realize family goals by using an advisory team. Advisers are chosen based on the mission and goals of the family farm dairy. The team, led by the dairy diagnostic coordinator, who conducts and facilitates team efforts, meets periodically to conduct a business SWOT (strengths, weaknesses, opportunities and threats) analysis and monitor progress. Dairy families implement advances in feeding, breeding and business management for greater profit. Results from 2009 include:

- collaborated on the development of a pipeline field delivery system for manure management to replace custom hiring of lagoon-pumping services; annual impact: $70,000
- trained employees to revise cow preparation procedures that reduced the somatic cell count 36,000 points and increased milk value; annual impact: $11,035
- improved feed efficiency to reduce the cost of production and increase milk production by 765,000 pounds for the year; annual impact: $110,925 in additional milk sales

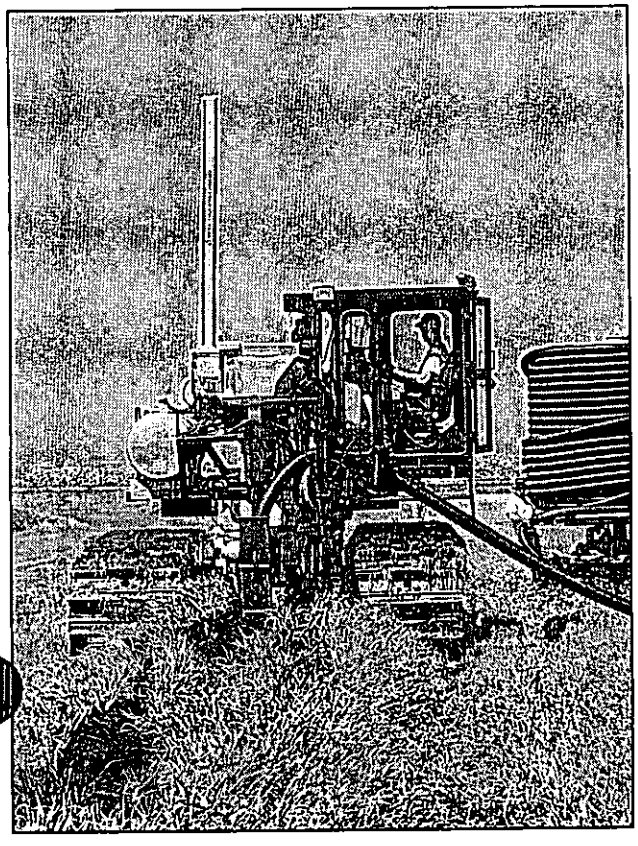


NDSU Extension agent Mary Froelich talks about the importance of food safety during a BBQ Boot Camp session.

■ Natural Resources and Environmental Management

Wind Energy Information

Rural areas view wind energy as an economic development opportunity, and landowners see it as a way to increase their income. To help people learn more about this developing industry, NDSU Extension Service specialists held about a dozen educational sessions throughout North Dakota in 2009. With assistance from North Dakota Public Service Commission members and attorneys at some of those sessions, they spoke on topics such as wind energy financing and regulation, energy efficiency and wind turbine leases. A total of about 400 people attended their presentations at workshops, agricultural producer meetings and lenders conferences. Extension specialists also developed a publication, "Wind Turbine Lease Considerations for Landowners," to offer landowners guidance before they sign a contract with a wind energy development company, and an on-line tool, "Wind Financial Calculator," to help individuals evaluate the investment potential of wind energy using localized wind information from their area.



Tile drainage is being installed at a research site established to determine how to reduce the effects of excess water on crop production.

Tile Drainage to Reduce Risk

From the 1990s through 2010, excess water has affected crop production significantly in eastern North Dakota. Yields have been lost because planting was prevented or delayed. As part of the solution, several NDSU Extension Service specialists and staff have established a tile drainage research site that is unique because it is the only replicated research site in a multistate region comparing tiled and nontiled crops. Plant pathologists are evaluating the effect of better drainage on plant diseases. Soil scientists are monitoring the changes in the soil, and agronomists are studying the growth, development and yield of different crops. The technical and economic feasibility must be understood clearly before tile drainage will become a widely accepted water management practice in the region.

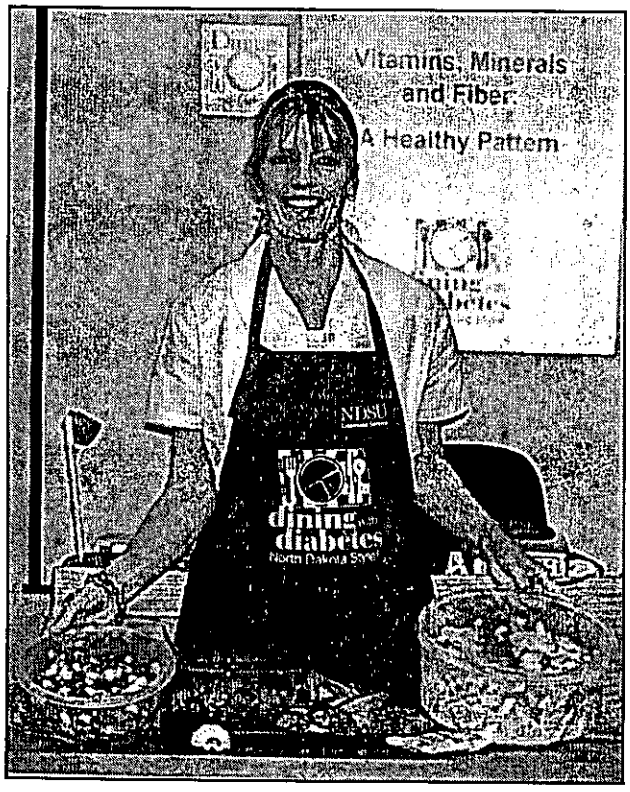
Nutrient Management Protects and Saves

Livestock waste, or manure, is viewed as an environmental risk by some citizens. However, livestock operations can manage livestock waste effectively by using best management practices. The NDSU Livestock Waste Technical Information and Assistance Program helps livestock operations reduce adverse impacts of livestock waste on water quality in North Dakota by educating livestock producers and technical service providers. NDSU specialists also are helping producers adopt best management practices that change this "waste" into a valuable resource when the manure is used as fertilizer. Since the program's inception, the livestock nutrient management specialists have provided one-on-one consultation to more than 255 livestock facilities in addition to hosting numerous tours, workshops, seminars and other training activities. Effective livestock waste management is not trivial. Livestock produces an estimated 20 million tons of manure in North Dakota each year, representing a potential nitrogen fertilizer value of $75 million. Wise producers are capturing more of the fertilizer value from this resource while improving environmental quality through this program.

■ Nutrition, Food Safety and Health

Dining with Diabetes

Extension's longstanding and solid networks across the state have fostered the implementation of an educational program designed to address diabetes education, especially in rural areas that lack access to vital health education services. Diabetes demands much self-management around healthy lifestyle changes. As people endeavor to change, they need information about the best approaches to achieve health when living with diabetes. They also need coaching or support to make those changes. Dining with Diabetes (DWD), a hands-on, community-based program, addresses the variety of learning needs people with diabetes have. Family and consumer science Extension agents and certified diabetes educators or registered dietitians partner to deliver this comprehensive diabetes education program. DWD improves diabetes management by providing education to North Dakotans with diabetes and to those at risk of developing the disease. This program empowers participants to make more healthful food choices and become more physically active. DWD participants show improvements in their blood sugar control through a more active lifestyle coupled with incorporation of more whole grains, fruits and vegetables into their diets.



NDSU Extension agent Donna Bernhardt teaches diabetics how to eat more healthfully as part of the Dining with Diabetes program.

Eating for Your Eyes

Eating for Your Eyes is a statewide program conducted in collaboration with the North Dakota Optometric Association. The program has been offered in 36 North Dakota counties and eight other states. Approximately 16 million people over the age of 45 report some vision loss in the U.S. More than 2 million Americans have severe age-related macular degeneration (AMD), and another 7 million may have it and not know it. Prevention is important because AMD is the leading cause of irreversible vision loss and greatly reduces the quality of life. Researchers have reported that nutrition and fitness play a role in eye health. Participants in the program used vision simulators to experience eye diseases, and they set goals to maintain their eye health, including eating eye-healthy foods, getting vision exams and protecting their eyes by wearing sunglasses. Evaluations indicated:

- 95 percent of participants reported learning something new
- 35 percent indicated they planned to get a dilated eye exam
- 57 percent planned to wear ultraviolet sunglasses or a hat

The North Dakota Optometric Association has provided NDSU Extension with a letter of appreciation and support for the unique partnership and valuable service provided to North Dakota citizens.

■ Nutrition, Food Safety and Health (continued)

Family Nutrition Program

The NDSU Extension Service offers the Family Nutrition Program (FNP) to individuals who are recipients of or eligible for Supplemental Nutrition Assistance Program (SNAP) benefits. Through a series of lessons or one-time programs, FNP educators use evidence-based content to teach participants nutrition-related knowledge and skills. For program year 2010, focus areas were increased fruit and vegetable consumption, increased low-fat dairy consumption, balancing healthful food with physical activity and getting the most nutrition for the money. In program year 2010, FNP provided direct education to 5,248 eligible adults and 16,130 youth across North Dakota. Additionally, indirect education efforts, including nutrition education articles and community events, resulted in more than 200,000 contacts. Evaluation results indicated that FNP participants reported improved nutrition, food safety and food resource management behaviors following FNP lessons, including:

- 73 percent of students eat 1½ cups or more of vegetables daily
- 73 percent of youth choose milk instead of soda pop
- 85 percent of students are active four or more days each week
- 85 percent of adults have nutritious foods on hand for quick meals or snacks
- 85 percent of adults spend their food dollars more wisely

Expanded Food and Nutrition Education Program

The NDSU Extension Service offers the Expanded Food and Nutrition Education Program (EFNEP) to North Dakota families at risk for food insecurity. EFNEP focuses on working with limited-resource adults with children in the household and youth from homes with limited resources. This educational program provides a series of free lessons with evidence-based content aimed at improving food safety practices, nutrition and physical activity, and stretching the food dollar. After a series of five or more lessons, EFNEP participants are eligible for graduation and complete a survey to assess their knowledge and behavior. A 2001 multistate analysis that included North Dakota found that the estimated benefit-cost ratio was $8.82 worth of benefits for every $1 spent on EFNEP. For program year 2010, North Dakota EFNEP had 352 adult graduates and 1,021 youth participants. EFNEP graduates reported improved nutrition, food safety and food resource management behavior, with 86 percent improving at least one nutritional practice and 64 percent improving at least one food safety practice.

On the Move to Better Health

On the Move to Better Health, a classroom-based, five-week nutrition and fitness education program for elementary students, reached about 3,800 children and their families from 2007 to 2010. A total of 3,110 children in 24 counties are participating in the program in the 2010-11 school year. According to post-surveys with children:

- 55 percent reported increasing the amount of fruits and vegetables they consumed
- 63 percent reported increasing their daily amount of physical activity
- 58 percent reported drinking less soda pop

According to follow-up surveys with parents:

- 51 percent reported an increase in their family's consumption of fruits and vegetables
- 52 percent met their family's nutrition or fitness goals

AGENCY OVERVIEW

Main Research Station

North Dakota Agricultural Experiment Station

Agency Statutory Authority

North Dakota Constitution Article XIX; North Dakota Century Code Chapter 4-05.1.

Agency Description

The North Dakota State University Main Research Station is located on the campus of the North Dakota State University of Agriculture and Applied Science. The station is the administrative location of the North Dakota Agricultural Experiment Station (NDAES). The station conducts research and coordinates all research activities of the Agricultural Experiment Station. The research has, as a purpose, the development and dissemination of technology important to the production and utilization of food, feed, fiber, and fuel from crop and livestock enterprises. The research provides for an enhancement of economic development, quality of life, sustainability of production, and protection of the environment. The Main Research Station keeps detailed records of all activities and publishes the information that will be of value to the residents of this state.

Agency Mission Statement

The agricultural experiment station shall develop and disseminate technology important to the production and utilization of food, feed, fiber, and fuel from crop and livestock enterprises. The research must provide for an enhancement of the quality of life, sustainability of production, and protection of the environment.

Agency Performance Measures

Per NDCC 4-05.1-19 the State Board of Agricultural Research and Extension (SBARE) presents a status report to the budget section of the legislative council. SBARE's most recent presentation to the budget section was on March 11, 2010. The report they gave and provided in written form included the status of the North Dakota Agricultural Experiment Station and the NDSU Extension Service. A copy of the information is on file in the legislative council office.

Agency Future Critical Issues

The NDAES continues to face challenges to sustain an infrastructure in which to do quality research. Shortfalls occur in plant research facilities, especially those for transgenic plants which will be more frequently introduced, as well as much needed animal research space for nutrition trials, genetic studies, and meat quality. New facilities, specifically the new greenhouse (Phases I and II) and the new animal research complex will have strong positive impacts on the ability of NDAES scientists to carry out high quality research in these state-of-the-art facilities. Studies on transgenic crops will increase as methods to incorporate disease, insect, and environmental stress resistance are more available. Our scientists travel farther each year in the state to conduct site-specific research to control

NDSU
North Dakota State University
ND Agricultural
Experiment Station

wheat and barley scab (an ongoing problem) and other important yield-limiting diseases of crop commodities grown in the state. Addressing new issues, such as wheat stem sawfly, new races of existing diseases for which these is little resistance, and identifying and responding to livestock producer concerns over outbreaks of zoonotic diseases are fundamental to the mission of the NDAES. Major problems occur in acquisition of costly field and laboratory equipment that cannot be obtained through grants. NDAES has insufficient laboratory space to meet the needs of 21st Century agriculture. North Dakota is becoming increasingly urban, and urban populations require some products and services that are different than those needed by livestock and crop producers. Continual efforts to improve horticultural research are occurring, and NDAES is actively evaluating new research and demonstration programs in this area. Enhanced efforts in areas including, but not limited to, food safety, food security, natural resources management, new bioproducts (including fuel) need to continue in order to allow NDAES to serve this segment of agriculture well. A systems approach for livestock research, literally from conception to consumption, is identifying ways to better serve this important sector of the North Dakota agriculture. Our strength is in our researchers, but they are too few to cover all of the critical issues facing North Dakota agriculture, and the lack of adequate numbers precludes important faculty development. Over years, faculty positions have been lost, and lost positions cannot be redirected. For some units, additional technical support would significantly increase productivity of researchers. Faculty are responsible for attracting external funding, and their success during this biennium is impressive; however, the effort to write more, and larger, grants is apparent, and we have concerns about additional pressures that fundraising have on faculty burnout. Rural populations continue to decline, and the dynamics of the farming population are changing. Economic realities often place NDAES in a position of responding rather than being proactive in affecting positive change. Communication to help sustain farmers/communities is critical, and the need to translate research information into useful formats is apparent. In addition to building the technologies for communication, we need to promote the development of quality information that is transmitted by the technologies.

North Dakota Agricultural Experiment Station

Update of NDAES Inititatives Funded in 2009-11 Budget

■ **Costs to continue FY2009 salary increases**

$824,234 received and allocated July 1, 2009

■ **Greenhouse utilities**

$480,000 received

- Allocated

■ **Extraordinary repairs**

$600,000 received

- Allocated – priority given to worker safety issues
- Priority list maintained by NDAES

■ **Pulse, Oilseed and Wheat Quality and Product Evaluation**

$678,276 received

- One Ph.D. scientist (1 FTE) hired in pulse quality evaluation. The scientist will carry out independent research on quality traits in pulses, assist the breeding program on much-needed quality evaluation and assist the pulse industry in the state to evaluate the quality of pulses grown in North Dakota on an annual basis.
- Three technical support staff (3 FTE) hired, two in wheat quality evaluation, one in pulse quality evaluation. These technical support staff positions will support their respective research programs in hard red spring wheat, durum wheat and pulse quality.
- Oilseed component not funded
- Operating funds distributed

■ **Crop Disease Management**

$430,000 received

- Wheat rust pathologist (1 FTE) hired at Main Station to lead research effort on wheat stem rust, including the new *Ug99* rust race, and wheat leaf rust. The pathologist will carry out independent research and be part of the breeding team to identify, introgress, and deploy new wheat resistance genes to protect this important commodity.
- Plant pathologist (0.7 FTE, complements 0.3 FTE Extension appointment) hired at Carrington REC to conduct applied research on controlling numerous diseases affecting the many crops grown in central North Dakota. The initial focus has been on sclerotinia in a number of susceptible crops and black leg in canola.
- Operating funds distributed

Update of Initiatives Funded in 2009-11: NDAES

■ Forage Agronomist

$220,000 received

- Forage agronomist (1 FTE) hired at Central Grasslands REC to focus on identifying the appropriate and best plant species for use as feedstocks in the biofuels and bioproducts industries. The agronomist will coordinate statewide trials and conduct independent research on adaptation and productivity of plant species.
- Operating funds distributed

■ Irrigation Scientist

$65,000 received (these funds were combined with funds received in 2007-09 biennium to attract a qualified scientist)

- Irrigation scientist (1 FTE) hired at the Williston REC to carry out research focusing on high-value crops for irrigated production in the northwestern corner of North Dakota. Efforts to identify best production practices of these crops for the northwestern area of the state is necessary for grower adoption of these commodities.

■ Permanent oil tax trust fund - One time

$925,000 received

- Distributed for operations at Dickinson REC

■ Grape and wine program committee

$250,000 received

- Wine industry producer education, promotion, marketing
- Released to fiscal agent July 2009

■ Bond Payments

Main Station ($421,789), North Central REC ($92,726), Central Grasslands REC ($56,908)

- Allocated and paid to Industrial Commission per schedule

■ Research Greenhouse Complex

$11,450,400 received

- Funds used to construct Phase II of the Main Station Greenhouse. Below-ground construction (foundation work) was initiated in fall 2009, with above-ground work beginning in spring 2010. Phase I is complete and Phase II is on schedule to be completed in summer 2011.

■ Beef Research Facility

$2,612,400 received

- Construction of the final phase of the beef research complex began in spring 2010, with completion scheduled for early February 2011. This state-of-the-art facility will allow animal scientists to carry out very precise research on nutrition, management, genetics, meat quality and reproduction.

Update of Initiatives Funded in 2009-11: NDAES

■ REC Renovations/Additions

$2,937,200 received

- Headquarters addition at North Central REC ($624,000) provided additional office space, library and meeting space to reduce office congestion. Construction began in spring 2010, with completion occurring in October 2010.
- Agronomy lab and headquarters addition at the Williston REC ($1,680,000). The addition and laboratory wing bids were awarded in spring 2010. Initial construction was delayed due to the extreme construction activity in the region brought on by the rapid expansion of the oil industry. Construction is underway, with completion scheduled for summer 2011.
- A geothermal heat source for the Langdon REC headquarters building ($144,000) was bid in fall 2009. Initial bidding process resulted in no bids within budget. A request was made to the Budget Section on March 11, 2010 to increase the amount authorized for the project by $56,000. The request was approved, and the second round of bids resulted in an acceptable bid. Construction began in summer 2010 and was completed in November 2010.
- A renovation to the former headquarters building at the Dickinson REC (489,200) will provide graduate student housing. Initial bids were over budget, due, in part, to the extensive construction activity in the region brought on by the rapid expansion of the oil industry. In response to this situation, a "construction manager at risk" approach is being used. This allows greater flexibility for the general contractor to arrange for subcontractors or perform work themselves as market forces dictate, while guaranteeing maximum construction cost to the Dickinson REC. Contracts are currently being negotiated and signed. Construction is expected to be complete summer 2011.

■ Deferred Maintenance - One time

$450,000 received

- Allocated based on prioritized list of needs.

North Dakota Agricultural Experiment Station

2009-11 Legislation that Included Reporting Requirements to 2011 Appropriation Committees

SB2020 (NDSU Research, Extension and Agronomy Seed Farm)

■ **SECTION 2. ONE-TIME FUNDING - EFFECT ON BASE BUDGET - REPORT TO SIXTY-SECOND LEGISLATIVE ASSEMBLY.** The following amounts reflect the one-time funding items approved by the sixtieth legislative assembly for the 2007-09 biennium and the 2009-11 one-time funding items included in the appropriation in section 1 of this Act:

One-Time Funding Description	2009-11
Main research center greenhouse project	$11,450,400
Deferred maintenance pool	450,000
Operating pool	925,000
Dickinson parking lot and landscaping capital project	350,000
Beef research facility	2,612,400
North central, Williston, Langdon and Dickinson renovations/additions	2,937,200

The 2009-11 one-time funding amounts are not a part of the entity's base budget for the 2011-13 biennium. The extension service, northern crops institute, upper great plains transportation institute, main research center, branch research centers, and agronomy seed farm shall report to the appropriations committees of the sixty-second legislative assembly on the use of this one-time funding for the biennium beginning July 1, 2009, and ending June 30, 2011.

- Main research center greenhouse project - $11,450,400

  Status: *Construction in progress. Below ground construction (foundation work) was initiated in fall 2009, with above-ground work beginning in spring 2010. Project scheduled to be completed summer 2011*

- Deferred maintenance pool - $450,000

  Status: *Funds have been allocated. $223,000 spent through Dec. 31, 2010, with the remainder to be spent by June 30, 2011. A sample of projects completed to date:*

  MS Farms: beef barn electrical upgrade ($15,000)
  MS Farms: swine barn nursery room renovation ($55,000)
  MS Farms: swine barn electrical upgrade ($41,000)
  Dickinson: residence repair at Manning Ranch ($10,000)
  Hettinger: fence repair and replacement ($35,000)
  Langdon: septic system at residence ($25,000)
  North Central: fuel sled ($16,000)
  Williston: curb,.gutter, sidewalk ($25,000)

- Operating pool - $925,000

  Status: *Funds were released August, 2009. Funds have been used to defray operating costs at Dickinson REC.*

- Dickinson parking lot and landscaping capital project - $350,000 (special funds)

  Status: *Project began spring 2010 and will be completed spring 2011.*

- Beef research facility - $2,612,400

  Status: *Completion of the final phase of the beef research complex began in spring 2010, with completion scheduled for early February 2011.*

- North Central, Williston, Langdon and Dickinson renovations/additions - $2,937,200

  Status: North Central - *Headquarters addition at North Central REC ($624,000) Construction began in spring 2010 with completion occurring in October 2010.*

  Status: Williston - *Agronomy lab and headquarters addition at the Williston REC ($1,680,000). The addition and laboratory wing bids were awarded spring 2010. Initial construction was delayed due to the extreme construction activity in the region brought on by the rapid expansion of the oil industry. Construction is underway with completion scheduled for summer 2011.*

  Status: Langdon - *A geothermal heat source for the Langdon REC headquarters building ($144,000) was bid in fall 2009. Initial bidding process resulted in no bids within budget. A request was made to the Budget Section on March 11, 2010 to increase the amount authorized for the project by $56,000 (special funds) to a total of $200,000. The request was approved, and the second round of bids resulted in an acceptable bid. Construction began in summer 2010 and was completed in November 2010.*

  Status: Dickinson - *Initial bids for a renovation to the former headquarters building at the Dickinson REC ($489,200) was over budget, due, in part, to the extensive construction activity in the region brought on by the rapid expansion of the oil industry. In response to this situation, a "construction manager at risk" approach is being used. This allows greater flexibility for the general contractor to arrange for subcontractors or perform work themselves as market forces dictate, while guaranteeing maximum construction cost to the Dickinson REC. Contracts are currently being negotiated and signed. Construction is expected to be completed summer 2011.*

■ **SECTION 4. APPROPRIATION - FEDERAL FISCAL STIMULUS FUNDS.** There is appropriated from federal fiscal stimulus funds made available to the state under the federal American Recovery and Reinvestment Act of 2009, not otherwise appropriated, the sum of $700,000, or so much of the sum as may be necessary, to the main research center for the purpose of installing a geothermal heating system in the main research center greenhouse project, for the biennium beginning July 1, 2009, and ending June 30, 2011.

Status: Federal Fiscal Stimulus funding pursued, but not received.

Main Station - North Dakota Agricultural Experiment Station
Research Greenhouse Complex

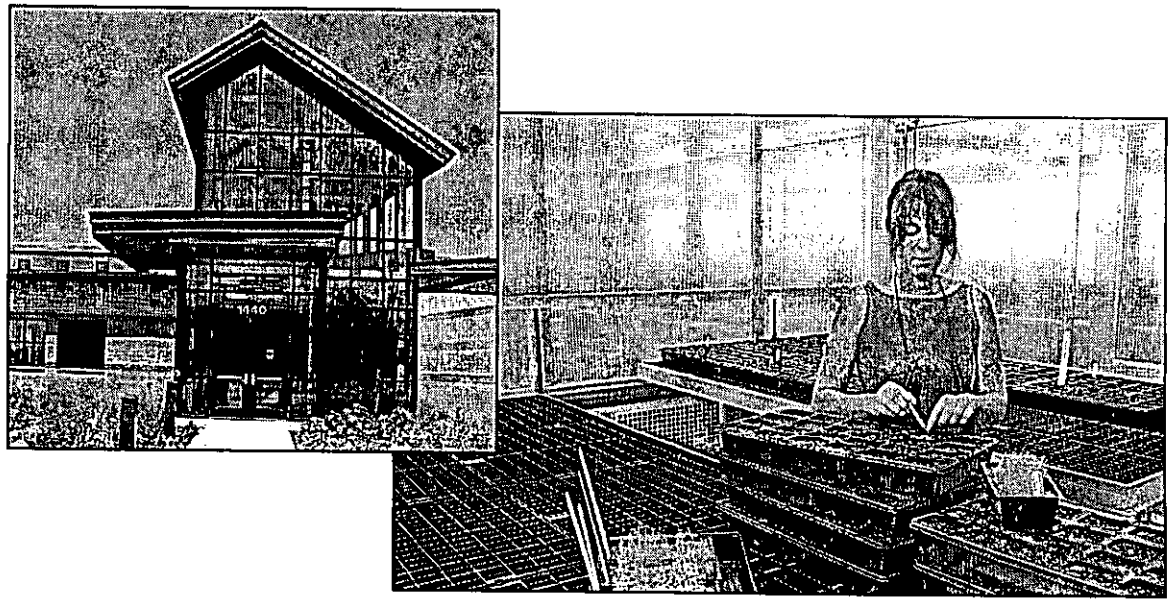
Total Legislative Authorized Amount:

$11,450,400

An outline of the Main Station Research Greenhouse project process:

- Phase I of the Main Station Research Greenhouse Complex appeared as priority No. 1 in the 2004 NDSU Campus Master Plan for the Agricultural Experiment Station.
- This project was authorized in SB 2023 for the 2005-07 biennium in the amount of $7,000,000 including $2,000,000 in state bonding and $5,000,000 in other and federal funds.
- NDSU further requested and was granted carryover authorization for the project at the Jan. 18, 2007, SBHE meeting to continue to raise funds to meet the $5,000,000 goal in special funding, with the remaining $2,000,000 being provided by state bonding.
- The 2007-09 appropriation in HB 1020 included an additional $7,000,000 for the completion of Phase II of the three phase greenhouse project under the Main Research Center section and also carryover authority of $7,000,000 in funding authorized in 2005-07.
- The legislature also removed the designations of Phase I and II of the project, and furthermore, Section 14 of HB 1020 stated that the Main Research Center may use any funding available within the total appropriation authority for the Main Research Center Greenhouse project to begin construction of the greenhouse with total cumulative authorization of $14,000,000.
- SB2020 in the 2009-11 Biennium provided $11,450,400 to fund additional construction.
- The NDAES continues to raise additional funds up to the goal of $5,000,000 in special fund authorization that was approved for the project.

The final component is included in the 2011-13 major capital projects request for $6,991,650 (general funds) and $2,502,931 (special funds).



FACILITIES

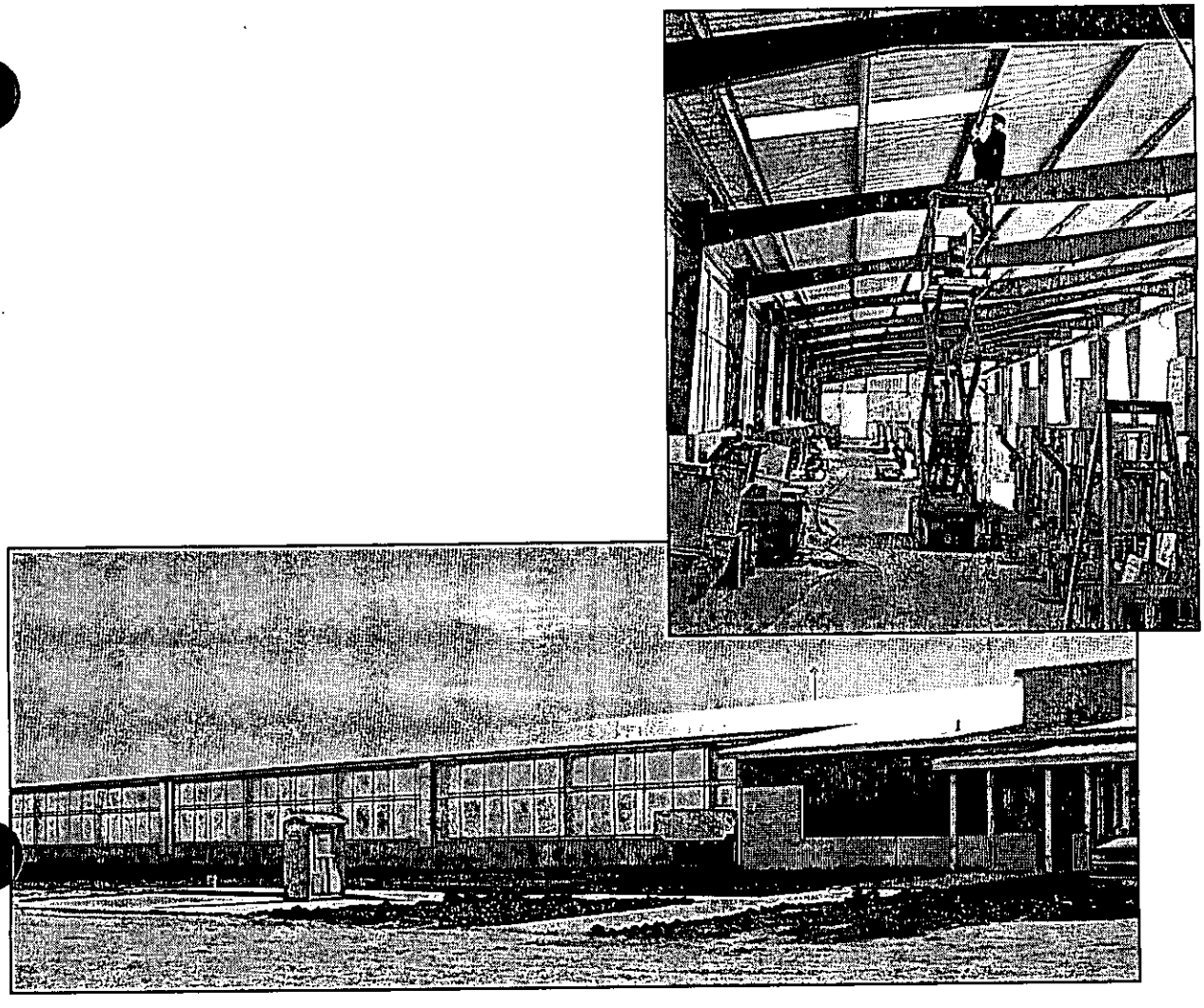
Main Station - North Dakota Agricultural Experiment Station
Beef Research Facility

Total Legislative Authorized Amount:

$2,612,400

Phase I of the Beef Research Facility was authorized in the 2007 legislative session at $1,000,000 of special funds and $80,000 in general funds for planning and design of the facility. The NDAES let contracts totaling $701,900 utilizing $500,000 in federal funding and $121,900 in other special funds to begin Phase I, which includes construction of six pens for experimental purposes and a cattle handling area.

SB2020 in the 2009-11 Biennium provided $2,612,400 to complete the project. Construction is ongoing and anticipated to be completed in February 2011.



FACILITIES

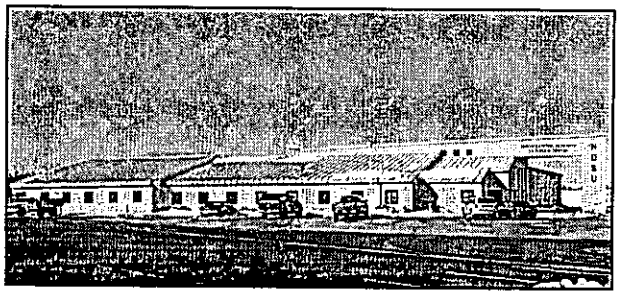
Headquarters Additions/Renovations

Total Legislative Authorized Amount:
$2,937,200

North Central Research Extension Center

Total Project Costs: $624,000

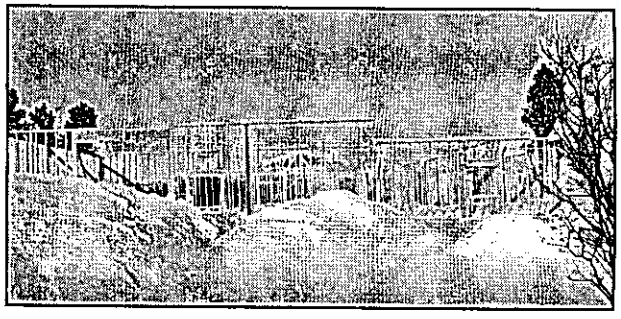
Headquarters addition at North Central REC Construction began in Spring 2010 with completion occurring in October 2010.



Williston Research Extension Center

Total Project Costs: $1,680,000

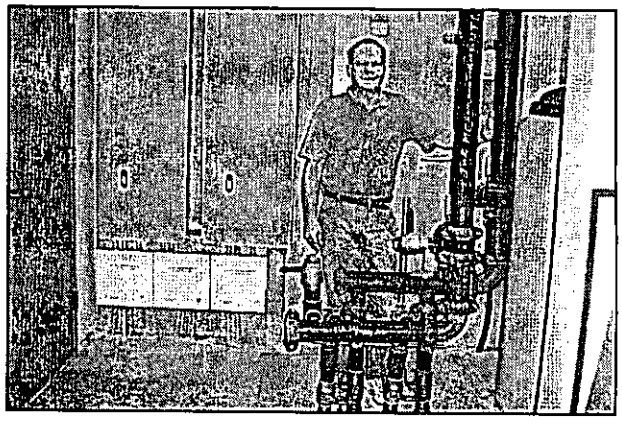
Agronomy lab and headquarters addition at the Williston REC. The addition and laboratory wing bids were awarded Spring 2010. Initial construction was delayed due to the extreme construction activity in the region brought on by the rapid expansion of the oil industry. Construction is underway with completion scheduled for Summer 2011.



Langdon Research Extension Center

Total Project Costs: $144,000

A geothermal heat source for the Langdon REC headquarters building was bid in Fall 2009. Initial bidding process resulted in no bids within budget. A request was made to the Budget Section on March 11, 2010 to increase the amount authorized for the project by $56,000 (special funds) to a total of $200,000. The request was approved, and the second round of bids resulted in an acceptable bid. Construction began in Summer 2010 and was completed in November 2010.



Dickinson Research Extension Center

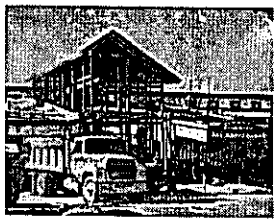
Total Project Costs: $489,200

Initial bids for a renovation to the former headquarters building at the Dickinson REC was over budget, due, in part, to the extensive construction activity in the region brought on by the rapid expansion of the oil industry. In response to this situation, a "construction manager at risk" approach is being used. This allows greater flexibility for the general contractor to arrange for subcontractors or perform work themselves as market forces dictate, while guaranteeing maximum construction cost to the Dickinson REC. Contracts are currently being negotiated and signed. Construction is expected to be complete Summer 2011.

NDSU North Dakota State University ND Agricultural Experiment Station

ND Agricultural Experiment Station

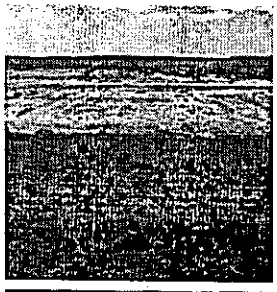
2011-13 Program and Infrastructure Needs as Ranked by SBARE



1. Greenhouse Utilities

Situation: Phase II of the greenhouse is under construction. Upon completion, the NDAES is expected to pay for utility costs associated with the complex.

Need: An increase in the general fund appropriation for utility costs is needed for the final phase of the greenhouse to be operational – $173,622



2. Enhancing Soil Productivity and Land Management for Future North Dakotans

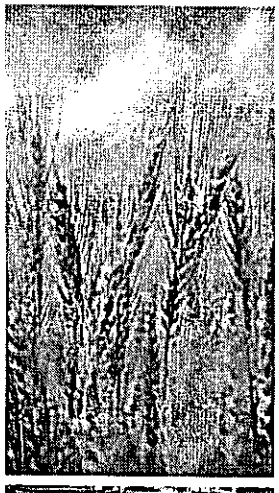
Situation: Saline and sodic soils affect 25 percent (12.6 million acres) of North Dakota agricultural land. Research to reduce soil issues, identify ways to better manage lands for improved crop and livestock productivity, and determine methods to better utilize lands for recreation and wildlife would enhance the profitability of landowners in the state and protect this important resource for future generations.

Need: Additional Experiment Station personnel and operating at NDSU, HREC, CREC, WREC and CGREC – $1,410,000

3. Infrastructure

Situation: Research costs continue to escalate throughout the AES. This increased cost hampers the ability of scientists to carry out their research mission, reduces their ability to hire students, and limits their ability to purchase and utilize the necessary equipment that will allow them to carry out their research for the benefit of North Dakota. Reduced office support staff requires that scientists handle routine paperwork, reducing their overall efficiency.

Need: Additional funding for the Revolving Equipment Funds (Main Station and REC), additional operating funds at Main Station, and office support staff – $1,880,000



4. Improving the State's Economy by Enhancing Crop Development Efforts

Situation: Crop improvement efforts are critical to the state's economy. The competitiveness of our state's farmers relies on the high-yielding, disease-resistant, and high-quality varieties that are developed and released by the NDAES. These varieties are readily accepted throughout the state; for example, surveys have shown that more than 68 percent of the North Dakota acreage planted to hard red spring wheat wheat is planted to varieties developed by our hard red spring wheat program – the percentage is higher for durum wheat. In general, $1 invested in variety development generates more than $200 in return to the state. North Dakota produces more than 90 percent of the U.S. canola production, yet lacks a program to deliver superior lines for use in the state. Farmers throughout the state rely on NDAWN to help protect their crops by monitoring weather conditions conducive to disease development, and identification of appropriate disease control measures for western North Dakota is lacking.

Need: Technical support for breeding and pathology programs, variety testing, canola breeding at Main Station, CREC, LREC, WREC, NCREC; increased support for NDAWN, plant pathologist at WREC. – $2,700,000

5. Improving Animal Productivity and Livestock Stewardship for Increased Profitability in the North Dakota Livestock Industry

Situation: Livestock production throughout the U.S. is under increasing scrutiny, and producers face many challenges in rising production costs, increased accountability on animal welfare issues, and environmental challenges. Finding ways to expand beef cattle finishing in the state while improving environmental sustainability and enhanced animal care and husbandry will enhance the state's economy and allow our livestock producers to remain a vital component of agriculture.

Need: Technical support at Main Station and CREC, animal scientist at Main Station and operating support – $810,000

Continued

ND Agricultural Experiment Station
2011-13 Program and Infrastructure Needs as Ranked by SBARE (continued)

6. Crop Commodity Quality/Trait and Utilization Development

Situation: North Dakota is known throughout the world as a source of high-quality crop commodities. To maintain this reputation, new evaluation programs and other research will focus on appropriate quality characteristics. New uses of traditional crops also will be explored.

Need: Additional staffing and operating at Main Station – $1,110,000

7. Animal Health Initiative

Situation: North Dakota's animal industries require access to high-quality animal health care. Identifying, confining and managing diseases are critical to the health of this important industry.

Need: Additional staffing in at Main Station and DREC; operating funds – $1,010,000

8. Plant Physiologist

Situation: Resistance in sunflower is being aggressively pursued. Understanding the physiological mechanisms involved in resistance is important to determine the appropriate methods to incorporate and implement resistance genes.

Need: Salary for plant physiologist at Main Station and operating funds – $290,000

9. State Data Center

Situation: State decision makers need to have unbiased information relating to evaluating parameters that allow for enhanced growth in the state's economy and determining the impact on federal policies that may impact North Dakotans to make appropriate decisions for the state.

Need: Additional staffing – $250,000

10. Organic/Sustainable Agriculture Systems

Situation: North Dakota is second only to California in acreage devoted to organic crops. Research is lacking in organic/sustainable farming systems for this region of the country. A systems approach to nontraditional farming practices would be explored.

Need: Technical and operating at CREC and DREC – $300,000

DETAILS: 2011-2013 Program and Infrastructure Needs as Ranked by SBARE

N.D. Agricultural Experiment Station

1. Greenhouse Utilities

$173,622 Total General Fund Increase

The NDAES is requesting funding for the additional utility costs associated with the second phase of greenhouse construction.

2. Enhancing Soil Productivity and Land Management for Future North Dakotans

$1,410,000 Total General Fund Increase

$570,000 salary and fringe benefits 1.0 FTE, Main Station – SNRS and 2.0 FTE research scientists (HREC, CREC)

$120,000 Operating

$720,000 salary and fringe benefits, 6.0 FTE, research support staff (HREC, CREC, WREC, CGREC, SNRS, ABEN)

North Dakota is blessed with many natural resources. Of these resources, our productive soils are one of the most important, and one that can be impacted positively to serve future North Dakotans. Managing soils has changed dramatically over the last 30 years. Efforts to reduce wind erosion brought about adoption of minimum tillage techniques that proved highly successful by retaining crop residue on the surface and reducing erosion. More recently, no-till systems have become very popular in many areas of the state. However, several areas of soil management have been neglected, resulting in the expansion of saline and sodic soils and declining soil fertility. Obtaining a better understanding of the soil microbial populations that impact (both positively and negatively) plant productivity is critically important to the farmers and ranchers in the state. Saline soils account for approximately 10.25 million acres in North Dakota, with sodicity affecting an additional 3.4 million acres. These affected soils reduce plant growth (both crop and range plants) by 25% even if symptoms are not evident. Lost productivity in the Red River Valley alone is estimated to range from $10-20 million annually; similar estimates exist for lost productivity in other areas of the state. What has not been estimated is the lost productivity of livestock production when pastures and rangeland are affected. Identifying ways to better manage lands for recreation, wildlife, grazing, and farming represents new opportunities for land-owners and managers to be successful. Better management practices that improve both productivity and overall economic activity are critical to allowing our state to remain competitive in this global economy.

Water and fertility issues also affect soil health and land management. Developing improved waste management systems and utilizing animal waste both play a major role in improving both soil fertility and soil tilth, but, if managed improperly, will affect both ground and surface water. Identifying better ways to manage livestock waste that enhances soil health is of critical importance to conserve and improve our soils and maintain productivity. Using appropriate crops or other plant species concurrently is being identified as a way to improve soil health in the region. Much of this information is anecdotal; appropriate research is needed to understand the mechanisms that may benefit our soils throughout the state.

3. Infrastructure (equipment, operating, graduate students, and office support staff)

$1,880,000 Total General Fund Increase
$200,000 equipment, REC and Main Station Revolving Equipment Funds
$410,000 Main Station operating funds allocation per SY
$720,000, 10.0 FTE, graduate research stipends (each ½ time) as pool, with preference given to ND students
$550,000, 5.0 FTE, Main Station office support staff

Revolving Equipment fund – In the 2007-09 Legislative Session, funds were made available to enhance the REC Revolving Equipment fund to $400,000/biennium and also provided $350,000 /biennium to establish a Revolving Equipment Fund for the Main Station departments. As research equipment costs continue to increase, and as additional requests are made to scientists for specific research activities, the ability of current funds to deal with the equipment needs and replacement is not possible. Equipment sharing exists, resulting in year-round use by many individuals. Equipment literally wears out, often before it becomes obsolete (which can occur in molecular genetics research in a few years).

Operating funds of $8,000/SY were provided in the 2005-07 Legislative session. Despite relatively low rates of inflation, research costs escalate at a much more rapid pace. Additional funds are requested to better allow our scientists to achieve their research objectives.

Graduate research assistantships are critical to research programs. The ability of students to focus research activities on projects important to the state results in enhanced efficiencies to each program. This is the least expensive labor pool that can be provided by the state to research programs; yet, students are highly intelligent and very motivated to carry out both the research and their studies. Also, graduate training is where students learn to be scientists – we are literally training the next generation of scientists that will be so important to our state and society.

Office support staff at the Main Station is critical to the function of department missions. The ability of each department (and the Main Station) to deal with ever-increasing compliance issues, grant proposals, and other budgetary issues greatly affects the opportunity of scientists to perform efficiently and effectively. Too often, scientists are forced to complete tasks that should be carried out by competent, skilled office staff simply because office staff cannot carry out additional tasks. Many departments have ratios approaching 7 faculty:1 office staff employee, a ratio that is not indicative of efficiency.

4. Improving the State's Economy by Enhancing Crop Development Efforts

$2,700,000 Total General Fund Increase
$300,000 1.0 FTE, research technician and operating for NDAWN;
$1,320,000 11.0 FTE, technical support staff : barley, corn, pulse, soybean, HRS wheat, winter wheat, cereal diseases, pulse diseases (Main Station), crop pathology (CREC), variety testing (WREC, LREC);
$490,000 3.0 FTE (breeder and technician, Main Station) and specialist at NCREC;
$410,000 Operating support
$180,000 1.0 FTE plant pathologist (WREC)

Agriculture is the leading sector of the State's economy. Cash "farm-gate" receipts of crop and livestock commodities account for 25% of the state's economy. Further, additional agricultural activities including, but not limited to, sale of products, manufacturing, transportation of commodities, professional services, and processing increases the percentage of this important component to more than 40%.

Developing improved crop varieties is fundamental to continued competitive success and profitability of farmers in the state. North Dakota has an extremely diverse crop mix; farmers grow more than 42 different crops in the state, and lead the nation in the production of more than 14 crop commodities. To accommodate the demand, the NDAES has developed over 13 plant breeding programs, with additional research programs that significantly aid in the development of improved varieties. When new varieties are released, they provide an immediate level of new wealth to farmers in the state. The release of the varieties Glenn, Faller, Steele-ND, and Howard Hard Red Spring wheat, generated more than $75 million (farm-gate income) in 2009, due to higher yield potential over existing varieties and improved quality characteristics. Glenn, when first released in 2006, had an overall economic impact of more than $350 million in its first year alone, due to its combination of high yield potential, very good scab resistance, and excellent quality characteristics. In addition, 90% of the ND durum wheat acreage is sown to NDSU varieties; the three most recent releases combined provided an additional $8 million in new wealth to the state in 2009. Other examples exist. In general, $1 invested in variety development generates over $200 in return to the state.

Protecting yield is critical to economic success of the state's farmers. Each commodity has disease and insect pests associated with the crop; high levels of disease incidence or insect presence adversely affects yield. Research to protect yield of all of the commodities is critical a critical component of the AES mission. Efforts to reduce scab infection in wheat and barley have saved hundreds of millions of dollars since the release of resistant varieties. Similarly, efforts to monitor disease development using NDAWN result in a savings of more than $30 million annually (either protecting the crop using timely pesticide application or not needing to apply pesticide). Also, estimates of wheat stem sawfly damage in western ND total more than $100 million, due to the continued expansion of this insect pest into wheat production regions of North Dakota. While western North Dakota appears to have fewer disease problems than other areas of the state, that appearance is very deceiving. Increased incidences of a number of important crop diseases have occurred with the rapid adoption of no-till farming practices and the ever-increasing acreage of irrigated crop production. These cultural practices radically impact the ability of many diseases to overwinter successfully and modify the micro-climate to enhance disease infection.

North Dakota leads the nation in the production of canola, with over 90% of the canola acreage, more than one million acres, found in this state. Canola is an excellent source of omega-3 oil, which has been shown to reduce cholesterol when consumed regularly. Canola oil also has been identified as an excellent source for bio-diesel production. The properties that make canola oil healthy for human consumption also enhances cold-flow properties of bio-diesel. The canola industry in North Dakota has a need for an improvement program focusing on high yield potential, reduced shattering, improved disease resistance, high percent oil, and high oil/acre to meet the demands of both the human food industry and the bio-energy sector. A dedicated breeding program would work with existing plant pathology and quality personnel to address these important issues.

Crop development efforts are hampered primarily by lack of technical support; many programs have technical support, but the support is insufficient given the large number of issues plant breeders, plant pathologists, and other scientists need to address in this improvement effort. Also, several programs do not have technical support staff – in order for these programs to be efficient and successful, technical support is critically needed.

5. Improving Animal Productivity and Livestock Stewardship for Increased Profitability in the North Dakota Livestock Industry

$810,000 Total General Fund Request
$480,000 4.0 FTE, Technical support (3) in Animal Science and one (1) at CREC;
$120,000 Operating
$210,000 1.0 FTE, animal scientist (Main Station)

North Dakota livestock producers are committed to ethical animal husbandry that assures their livelihood through good stockmanship. However, livestock production is under increasing scrutiny, and producers face many challenges including rising production costs, increased accountability in the area of animal welfare/animal rights and the environment (e.g. greenhouse gas emissions) and changing consumer expectations of the products they produce. NDSU Animal Sciences and RECs across the state must be equipped to help producers respond to these challenges through an integrated extension and research approach.

Expanded Beef Cattle Finishing Research. The resources are in place to grow beef feedlot enterprises in North Dakota. Opportunities for new market outlets and international trade, as well as the large variety of available feedstuffs, should enhance the opportunity for expansion. Systems which can provide a stable, year-round finished cattle supply for processors and enhanced carcass quality for specialty markets, along with mitigating environmental stress, improving environmental sustainability, and improved animal care and husbandry are priorities for research.

Environmental Interactions. Regulations related to carbon emissions and nutrient management have the potential to reduce profitability of livestock operations. Research in this area will enhance opportunities to improve efficiency of production while simultaneously reducing any negative effects that livestock operations may have on the environment. Research approaches tailored to North Dakota conditions which emphasize efficiency of production and a smaller environmental impact are needed to improve the competitive advantage of livestock producers and equip them with the tools to deal with an increased regulatory burden.

. Crop Commodity Quality/Trait and Utilization Development

$1,110,000 Total General Fund Increase
$330,000 2.0 FTE, Oilseed quality scientist and technician (Main Station)
$120,000 Operating
$330,000 2.0 FTE, Food safety processing scientist and technician (Main Station)
$330,000 2.0 FTE, Food scientist and technician (Main Station)

North Dakota is known worldwide for production of high quality crop commodities. Great emphasis has been placed on this in the past and continues today in all of our improvement programs and in our efforts to find new uses for these commodities to increase the value of these crops. It is important for the state to maintain this reputation as it allows growers to compete effectively in a global economy. The continued success of our evaluation programs and growth in our new uses research efforts are necessary to select for appropriate quality characteristics, both from a production marketing perspective as well as from a commodity utilization perspective.

7. Animal Health Initiative

$1,010,000 Total General Fund Request
$330,000 2.0 FTE, Diagnostic microbiologist and technician (Main Station)
$560,000 4.0 FTE, Two technical support staff and two livestock specialists (DREC)
$120,000 Operating

Animal agriculture requires access to qualified animal health care. Qualified and available care is important to the North Dakota agricultural industry. Enhanced collaboration with the NDAES Vet Diagnostic Lab, the DREC, and the ND Dept. of Agriculture Board of Animal Health is necessary to identify, confine, and manage disease outbreaks when they occur.

8. Plant Physiologist

$290,000 Total General Fund Request
$210,000 1.0 FTE, plant physiologist (Main Station)
$ 80,000 Operating

Resistance in sunflower to a number of diseases and insect pests is being aggressively pursued. Molecular geneticists, breeders, and pathologists, however, do not understand the physiological mechanisms involved in the resistance mechanisms. A plant physiologist is a needed member of the team to address this complex research agenda.

9. State Data Center

$250,000 Total General Fund Request
$250,000 2.0 FTE, support staff (Main Station)

The State Data Center is housed in the ND Agricultural Experiment Station and focuses on issues surrounding business opportunities in the state and development of rural communities. These have been major efforts of state leaders for many years. Evaluating parameters that allow for enhanced growth in income and employment in rural areas of the state provides a critical analysis so that leaders can make appropriate decisions,

10. Organic/Sustainable Agriculture Systems

$300,000 total General Fund Increase
$240,000 2.0 FTE, research technicians, (1) at CREC and (1) at DREC
$60,000 Operating

North Dakota has one of the largest acreages of organic production in the nation, second only to California. However, research is lacking in organic farming systems for the northern Plains area. We typically hear that practices and crop varieties developed for conventional systems cannot be transferred successfully to organic systems approach. Efforts to address the issues of this constituency are requested.

North Dakota Agricultural Experiment Station

2009-11 Impacts

The North Dakota Agricultural Experiment Station develops and disseminates technology that is vital to the production and use of food, feed, fiber and fuel from crop and livestock operations.

To do that, the Agricultural Experiment Station has eight Research Extension Centers strategically placed throughout the state. Researchers at these centers work on solving problems the state faces and test new management techniques and crop varieties. The centers are the Main Station in Fargo, Agronomy Seed Farm (Casselton) and the Carrington, Central Grasslands (Streeter), Dickinson, Hettinger, Langdon, North Central (Minot) and Williston Research Extension Centers.

The centers work with the NDSU College of Agriculture, Food Systems, and Natural Resources' seven departments: Agribusiness and Applied Economics, Agricultural and Biosystems Engineering, Animal Sciences, Cereal and Food Sciences, Plant Pathology, Plant Sciences, and Veterinary and Microbiological Sciences along with the School of Natural Resources Sciences and the School of Food Systems.

Here are some accomplishments at the Main Station during the past two years:

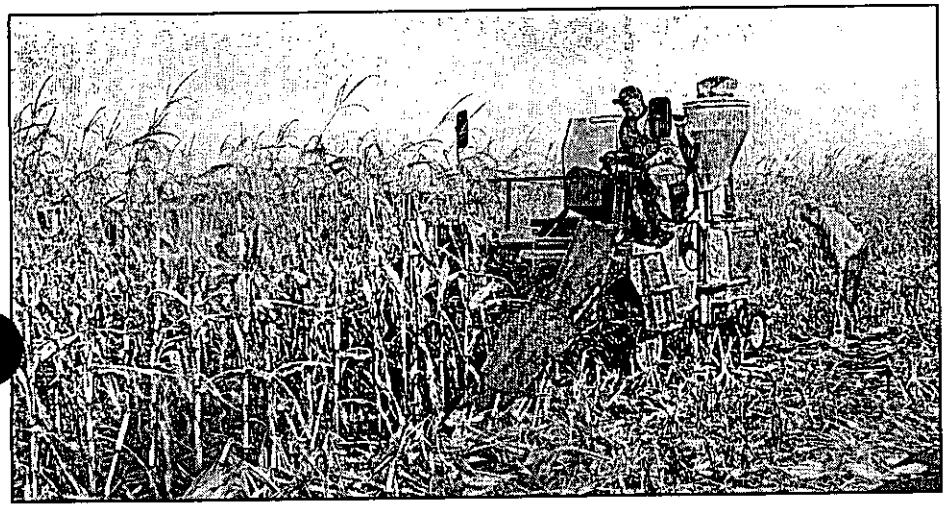
- Continued determining desirable agronomic processing and products and studied economic impacts for 14 major crops and several new crops
- Released the hard red spring wheat (HRSW) cultivar **Barlow**, which has improved disease resistance and agronomic/quality traits that contribute substantially to the state's economic development and the income of wheat growers and industry while meeting export market requirements. Barlow is adapted to the central and eastern portions of the state.
- Released **Mott**, a HRSW cultivar that possesses the solid stem trait, which reduces yield losses due to wheat stem sawfly infestation. This is particularly important to the western North Dakota wheat-growing region, where wheat stem sawfly is becoming increasingly problematic, causing an estimated $30 million in damage in 2009.
- Released **ND901CL**, a HRSW line with natural resistance to a specific herbicide, for use in the region. ND901CL is particularly adapted to western North Dakota.

Nearly 70 percent of the hard red spring wheat acreage planted in North Dakota in 2010 was of NDSU-developed varieties.

IMPACTS: North Dakota Agricultural Experiment Station

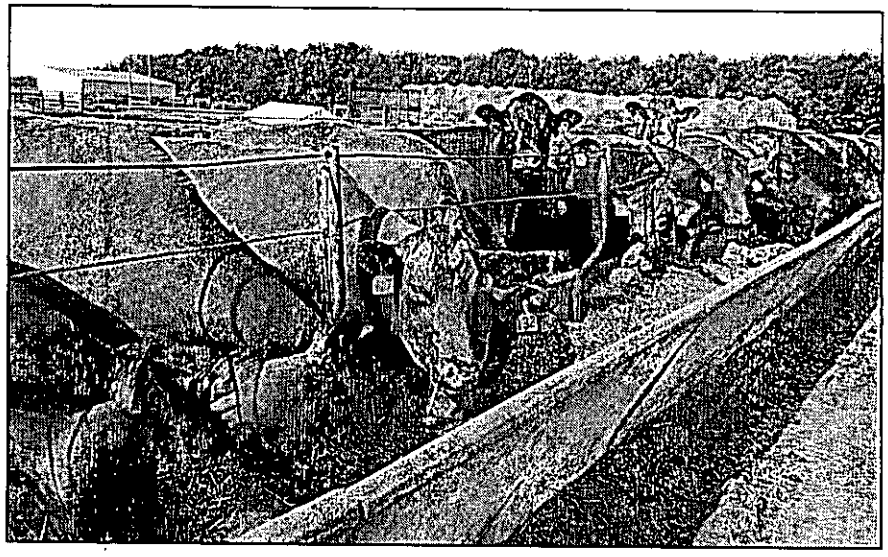
- Released the durum cultivar **Tioga.** This cultivar is ideally suited to central and western North Dakota. It has excellent quality characteristics, superb agronomic traits and very good resistance to a number of diseases that plague durum production in North Dakota. This line, because of its excellent quality, should compete well with Divide, Alkabo and Grenora, other recently released NDSU high-quality durum cultivars. The 2010 North Dakota durum crop is valued at more than $457 million. NDSU-developed varieties occupied more than 95 percent of the acreage, and the impact of the NDSU durum breeding effort was $434 million.
- Calculated that, through time, the grain yield of NDSU HRSW varieties has increased by 1.3 percent per year. Based on this, the NDSU HRSW breeding project generates approximately $25 million annually in new income due to its research activities. In 2010, the HRSW variety Glenn was grown on 25 percent of the nearly 7 million acres of the state's wheat acreage and was worth an estimated $600 million to the growers. Overall, NDSU-developed HRSW varieties occupied nearly 70 percent of the acreage, indicating a high level of customer satisfaction with NDSU varieties.
- Released **Dakota Trailblazer**, a dual-purpose potato cultivar and first NDSU developed variety for chipping. This line also is unique in that it requires fewer inputs (for example, less fertilizer) to achieve an outstanding yield. These traits, coupled with its excellent disease resistance, quality and cold chipping characteristics, will ensure this cultivar's success with the potato industry.
- Continued to research the causes of disease development and work to identify new and better sources of genetic resistance to diseases that threaten crops grown in North Dakota
- Enhanced the harvestability of corn grown throughout the state and saved corn growers tens of millions of dollars in drying costs and delayed harvest through new corn hybrids from the North Dakota Agricultural Experiment Station (NDAES) corn breeding program. These hybrids carry early maturity and rapid dry-down traits.
- Continued to seek partnerships with industry that will benefit the state's farmers and ranchers. The NDSU Seedstocks Project (under the direction of the NDAES) is working with Busch Ag Resources to maintain and distribute seed of Tradition and Celebration, Busch Ag's new barley varieties. Tradition is the leading malting barley variety grown in the state. Busch Ag understands the need for genetically pure seed, and this agreement ensures that high-quality seed is available for our farmers.

  The quick acceptance of new varieties by seed and commodity producers in North Dakota demonstrates the importance of the Seedstocks project. Faller, an NDAES HRSW release, was increased rapidly to allow distribution of foundation seed in 2007 and occupied 17.2 percent (1,159,000 acres) of North Dakota planted acres of HRSW during 2009. Approximately 70 to 75 percent of the spring wheat, 90 percent of the durum wheat and 90 percent of the barley planted in North Dakota was planted with varieties that originated from foundation seed maintained and distributed by the Seedstocks project.
- Allowed farmers to realize $34 million annually in additional income or savings by providing them with the information they needed to make timely, appropriate decisions on fungicide usage on a number of important crops through the North Dakota Agricultural Weather Network. NDAWN is a weather-monitoring system with more than 70 monitoring sites and disease forecasting models for wheat, barley, sugar beet, potato and canola.



The NDAES has developed corn hybrids with early maturity and rapid dry-down traits, which has saved corn growers millions of dollars in drying costs and delayed planting.

IMPACTS: North Dakota Agricultural Experiment Station



NDAES animal scientists are researching ways to reduce cattle-feeding costs.

- Reduced leafy spurge from nearly 1.5 million acres to approximately 850,000 acres through an integrated research program that began in 1980. It led to the implementation of chemical, biological and cultural control methods that reduced this weed. Integrated management efforts have allowed producers to regain the use of grazing and pasture land, resulting in more than $14 million annually in new income to the state. Prior to the start of this program, leafy spurge was doubling in acreage in the state every 10 years.
- Continued educational programs and cooperative projects involving NDSU, the North Dakota Weed Control Association and North Dakota Department of Agriculture that have kept invasive weeds such as saltcedar and yellow starthistle from establishing in large acreage and threatening the ecosystem as they have in nearby states. While new weeds constantly enter the state, they have not become widely established.
- Continued to work to reduce the cost of feeding cattle. NDAES animal scientists have shown that up to 60 percent of a finishing ration can be replaced with dried distillers grains plus solubles, thereby replacing more expensive corn and protein supplement. With almost 1.1 million tons of dried distillers grains plus solubles available in North Dakota, this can provide a cost savings of approximately $15 to $20 per head for the finishing period. The Beef Cattle Research Center that is nearing completion at the Main Station will allow researchers to study ways to improve feed efficiency. They also will study the use of alternative feedstocks and beef management. A 10 percent improvement in feed efficiency can generate an additional $40 million annually to livestock producers.
- Continued to carry out critical research at the Veterinary Diagnostic Lab (VDL) on the cause of diseases affecting the state's livestock. Scientists at the VDL conduct research on more than 1,000 submitted samples and work closely with other state and federal agencies to identify and monitor infectious diseases, such as foot and mouth disease, which can be devastating to the state's livestock producers.
- Worked to help the livestock industry reduce offensive odor emissions. Odor and pollutant gas emissions (for example, ammonia and hydrogen sulfide) from anaerobic lagoons are major impediments to expanding existing livestock facilities or establishing new livestock facilities, especially close to populated areas.
- Began evaluating the effectiveness of vegetative buffer strips in North Dakota to minimize water and air pollution due to increased manure volume from expanding livestock facilities. Runoff of phosphorus and nitrogen from feedlot and land application of manure is causing eutrophication of some lakes and streams in North Dakota. These buffer zones have become an important best management practice in other regions of the nation to minimize contamination of waterways from feedlots and land application of manure.
- Identified ways to manage grazing and farmland to maximize income of livestock and crops while maintaining high populations of upland game, an important revenue generator for landowners in many areas of the state.

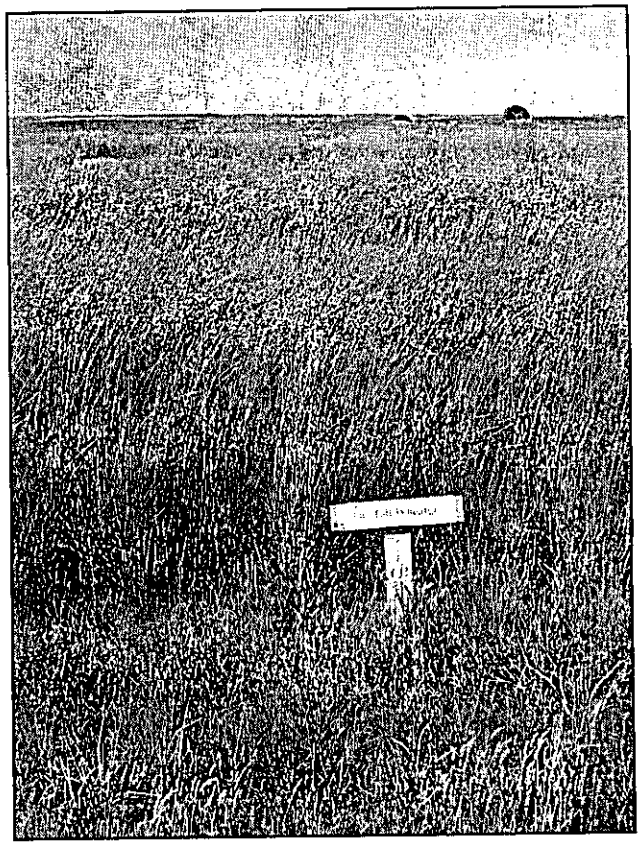
- Explored the health effects of certain North Dakota products. For example, durum breeding efforts to reduce cadmium have been successful. This naturally occurring element, when found at high levels in the seed, affects the North Dakota durum grower's ability to compete effectively in certain export markets with other durum-growing regions in the world. Researchers also are developing dry bean cultivars with high levels of zinc and iron, which will enhance the quality of these products in export markets. The consumption of appropriate levels of zinc by women of child bearing age reduces the risk of a child born with spinal bifida. A high level of iron in the diet enhances mental acuity and overall health.

  Other research is being conducted on legumes that possess high levels of antioxidant activities that are important in cancer prevention; canola oil because of its very high levels of omega3 oils, which are related to heart health; soluble fiber or the beta glucan (BG) concentration in oat food products, which is directly related to human health benefits including reduced blood serum cholesterol levels, improved balance of HDL (good) to LDL (bad) cholesterol, and moderation of glucose metabolism; and the oat cultivar HiFi, developed by NDAES scientists, which produces approximately 1.5 times the groat BG concentration than cultivars currently used to produce oat food products. Regular consumption of oat products derived from HiFi could have a positive impact on human health problems such as hypercholesterolemia, hyperglycemia and obesity.

- Evaluated the potential for producing cellulosic ethanol from sugar beet pulp, which is dried and pelletized for animal feed. Because North Dakota and Minnesota produce more than 50 percent of the U.S.'s sugar beets, adding value to the residual pulp would be economically attractive, generating millions of dollars annually for the state's economy.

- Continued to identify more efficient microbes and/or enzymes that are important in the conversion of cellulosic materials to higher-value products such as cellulosic ethanol. A deficiency in a standard protocol for evaluating cellulose enzyme products (important industrywide) has been identified, and mechanisms are being evaluated to encapsulate enzymes, which will allow recovery and reuse of expensive cellulose enzymes in biofuels production.

- Evaluated the feasibility of using straw and perennial grasses such as switchgrass, wheatgrass, wild rye and various Conservation Reserve Program mixtures for biofuel production, recognizing that some of the materials may be nonuniform mixtures of grasses and forbs. To help deal with the nonuniformity, researchers are evaluating the feasibility of a rapid spectroscopic method for analyzing composition of mixed or diverse biomass feedstocks. Rapid analysis is important to processors who need to know feedstock composition and value to set prices of the commodity and to adjust processing to deal with variability. Because North Dakota is a diverse agricultural state, processors will benefit from the ability to mix feedstocks according to price and availability.



NDAES scientists are evaluating the feasibility of using perennial grasses such as switchgrass and wheatgrass for production of biofuel.

AGENCY OVERVIEW

Carrington Research Extension Center

North Dakota Agricultural Experiment Station

Agency Statutory Authority

North Dakota Century Code Chapter 4-05.1

Agency Description

The Carrington Research Extension Center was established in 1960. The initial focus of the program was an irrigation research effort to support the Garrison Diversion Project plan to divert Missouri River water for irrigation. The Center's scope expanded significantly in the mid 1960's with responsibilities for dryland crop production research for central and south-central North Dakota and again in 1972 to include livestock research. The central location of the Carrington Center is significant in that the research program is well positioned to address crops and production issues that represent a major part of North Dakota's agricultural base.

The research effort at the Carrington Center focuses on these general program areas: traditional crop variety evaluation, crop production and management, plant disease management, alternative crop development, cropping systems, irrigation, integration of crop and livestock production, intensive cow/calf production, beef cattle feeding, feedlot management, livestock waste and nutrient management, foundation seedstocks production, and development of new agricultural enterprises. Through these efforts the Center's research program has gained a national reputation for its involvement in agriculturally based economic development and study of a wide range of crops and cropping systems.

The Carrington Center maintains a strong Extension program as five extension specialists base their educational programming from the Center. The extension program emphasis areas addressed by these specialists include agronomy, Plant Pathology, Irrigation, Livestock, and Livestock Waste — Nutrient Management. The Extension specialists develop educational programs that are delivered to regional county extension staff, individual producers and agri-businesses. Through their efforts the latest research results from the Carrington Center and from all across NDSU are shared with all agricultural constituencies as their needs and concerns are identified.

The Carrington Center operates on a land base of around 1,700 acres. Of this total, about 860 acres are leased or rented to supplement the research, seed and feed production needs of the Center. The Carrington Center has infrastructure to irrigate about 260 acres with center-pivot systems and 120 acres by surface methods. The balance of the acreage is managed as traditional dryland and is utilized primarily for dryland field crop research activities.

Carrington Center facilities include both the headquarters unit and the livestock unit. The headquarters unit includes the headquarters building (Research Extension Center), a series of buildings for processing and storage of foundation seedstocks, various buildings for equipment maintenance and storage, a modified potato warehouse (agronomy laboratory), and a residence. The headquarters building has offices for research and extension staff, a video-conference room, and large meeting rooms for university, community, and industry educational meetings. The livestock unit includes research facilities

NDSU
North Dakota State University
ND Agricultural Experiment Station

that can accommodate around 750 head. These facilities include the feed mill, an extensive series of feedlot pens, feed and forage storage structures, pole barns, a residence, and a small quonset for an office, equipment storage and dispensary for animal health supplies.

Agency Mission Statement

The Carrington Research Extension Center conducts research that will lead to the enhancement of agriculture and improve the quality of life across the central region of North Dakota. Specifically, the Carrington Center conducts research on both dryland and irrigated crop production methods and systems, improved crop cultivars, feeding of beef cattle, cow/calf nutrition, sustainable agricultural production, and produces foundation seedstocks. The objective is to discover the balance between farm enterprise profitability and conservation of the natural resource base. The results of these studies are disseminated to the entire state through an on-going extension educational program.

Agency Performance Measures

Per NDCC 4-05.1-19, the State Board of Agricultural Research and Extension (SBARE) presents a status report to the budget section of the Legislative Council. SBARE's most recent presentation to the budget section was on March 11, 2010. The report it gave and provided in written form included the status of the North Dakota Agricultural Experiment Station and the NDSU Extension Service. A copy of the information is on file in the Legislative Council office.

Agency Future Critical Issues

A secure (owned or long-term leases) land base is critical to sustain the current and future research mission of the Carrington Center. The CREC attains a significant portion of necessary land base from annual rental agreements. The acreage of land that is owned by the state relative to the total land base required to implement the current programs at Carrington is about 50%. For many years, the Carrington REC has operated on a land base of around 1,700 acres. Of this total, just over 850 acres are secured through annual rental arrangements with multiple landlords. This heavy reliance upon a willing group of land owners to annually rent significant acreage to the CREC is risky at best. If any one parcel of rented land were not made available in a given year, the CREC would be forced to significantly reduce or eliminate program contributions that are basic to our department mission.

Additional staffing is needed to sustain the overall level of agronomy (crops and soils) and livestock (beef) research that farmers, ranchers, commodity groups and agricultural industry expect from the Carrington Center. scientist level faculty are needed to sustain the level of agronomy (crops and soils) research that farmers, commodity groups and agricultural industry expect from the Carrington Center. These high expectations will only increase as the center is viewed by industry as effectively representing the crop diversity, farm integration, and problematic issues facing agriculture in the state. A scientist level researcher in soil science and support staff across all department programs represent the most critical needs.

An Agronomy Laboratory is a critical facility need at the Carrington Center. The Agronomy Laboratory is required to support what is considered one of the largest and most diverse agronomy field research programs in the upper Midwest. The Carrington Center conducts 300 to 350 field research experiments annually including trials on all crops (> 30) grown in North Dakota. The seeds, plants, soils, and other samples associated with these experiments are all processed in an old 1962 potato warehouse representing 2,400 square feet of space. This current laboratory has limited space for experiment preparation and processing, sample cleaning, dryers, field sample storage, and lacks appropriate temperature controlled seed storage. Additionally, the present facility is not designed to accommodate appropriate worker protection features including dust handling and air exchange requirements. The innovative and proactive research efforts of CREC agronomists and plant pathologist are compromised as the current facility has zero laboratory space for plant pathology equipment, growth chambers, and adaptation of new technologies for seed, soil, and plant research processes. Additionally the present facility has limited dryer capacity, inadequate sample storage, no cold storage for germplasm and no capacity to accommodate a greenhouse. Finally, it must be noted that the current laboratory lacks modern worker safety and protection features.

Construction of a Feedlot Research Support Center at the CREC's livestock unit is another critical facility need. The proposed Feedlot Research Support Center would address a combination of department shortfalls toward support of the beef research program. The envisioned facility would have combined functions of: dispensary for processing and storage of pharmaceuticals and animal health supplies; laboratory space for feeds, blood, and tissue processing; office space for technical staff with computer friendly environment and records storage; inside tempered storage for daily use feeding equipment; and shop area for tools, equipment and space for equipment maintenance and minor repairs. The Feedlot Research Support Center would improve feedlot research operational capability, assist in sustaining IAUAC compliance, attain worker protection standards, and reduce maintenance costs for equipment. The current facilities are very inadequate to support the widely recognized beef feedlot research program at the NDSU CREC.

An expansion in the number of beef feedlot pens and associated waste containment is required to satisfy the many projects related to utilizing the diverse feeds of North Dakota and beef feedlot management. The addition of sixteen pens would allow the CREC to conduct one additional experiment per feedout period. A development of a full set of an additional 32 pens would maximize the unit's research capability. Pen expansion must include the associated waste containment facilities to remain compliant with state law.

Another important facility need at the CREC is a new or expanded foundation seedstocks Seed Conditioning Plant. The current seed plant was constructed in 1963 and is seriously out of date. The present building is too small to retro-fit with larger capacity and modern era seed conditioning equipment. Another major deficiency is the current plant is not designed to readily accommodate air exchange and dust control features to address worker safety concerns. The Carrington seedstocks program typically processes 25 to 30 varieties representing six to eight crops annually. The CREC must rely heavily upon the use of a mobile mill to condition the majority of the seed products produced and solely managed within this program.

Base funding is needed to support technical and operational expenses associated with cooperating with the high number of collaborating NDSU faculty who utilize the Carrington site to conduct their research. The location and environment represented by the CREC make the site highly desirable among scientists who conduct field research. This department has a strong history of assisting scientists who wish to utilize this important research site. However, without additional resources we cannot sustain much less expand upon our desire to provide assistance to fellow researchers.

The rapid escalation in operating and equipment costs is of significant concern to this department. The Carrington Center's program diversity with both crops and livestock research has many positives for impacting agriculture in the state. However, this diversity requires a large investment in equipment and associated operating costs. A major portion of Carrington's operating and equipment budget is currently secured through funds generated from competitive research grant opportunities. Purchasing equipment with grant based funding has become a limited option as very few agencies allow for this category of cost.

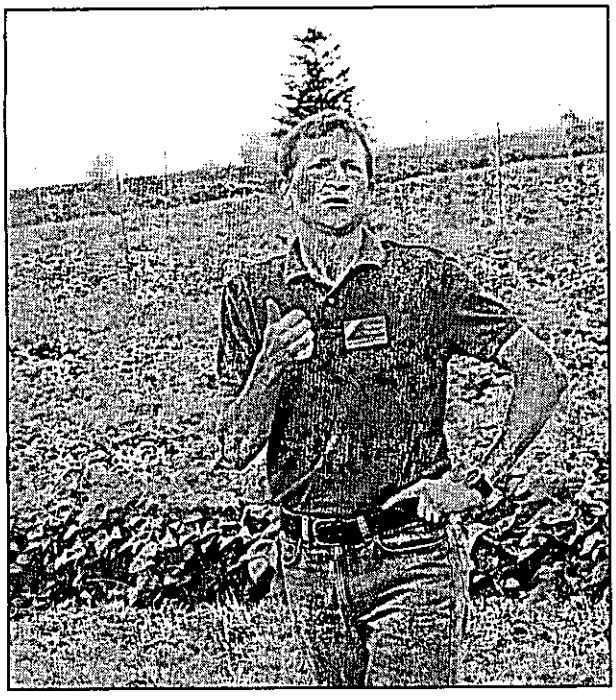
The department has a series of building projects or physical plant improvements beyond those previously mentioned. Examples of other important facility needs include a combination shop and equipment storage building for large-scale equipment, bulk feed storage shed, and numerous deferred maintenance projects. Physical plant improvement priorities include renovation of existing feedlot pens, improved animal working facilities, parking lot and driveway paving, residence modernization, and furnace replacements.

■ Carrington Research Extension Center

Here are some accomplishments at the Carrington Research Extension Center during the past two years:

- Hired the plant pathologist funded by the Legislature in the previous session. The plant pathologist was successful in initiating enhancements to the CREC's plant disease research program during the 2010 season.
- Continued to implement a broad-based research program to address the diverse crop base of the region and state. Carrington-based scientists, along with scientists from the NDSU Main Station and other Research Extension Centers, established nearly 350 field experiments at Carrington in 2010.
- Established research and demonstration studies at three on-farm sites to determine crop tolerance to saline soils in collaboration with the U.S. Department of Agriculture's Plant Materials Center and Natural Resources Conservation Service districts. A diversity of crop species, including 16 perennial and 12 annual crops, were planted across each saline site.
- Initiated a study of beef cow/calf production systems that compares the traditional system of pasture management versus drylot. Escalating land prices and availability have producers seeking more efficient and alternative methods for raising beef.
- Served as the leader in the establishment of regional "energy beet" trials to determine the potential of sugar beets as a feedstock for biofuel production. The center conducted both dryland and irrigated energy beet trials at six sites in central and south-central North Dakota. The Williston REC collaborated in this effort with the establishment of an irrigated trial at Nesson Valley.
- Continued to collaborate with the Hettinger REC beef research program on backgrounding and finishing rations to evaluate current cattle feeding issues. The most recent study is an evaluation of low-input growing and finishing options in which self-fed and bunk-line management is compared.
- Continued to produce and process a large volume of diverse crops and seed varieties for the center's foundation seedstocks program. In the past three years, the program annually has conditioned an average of 55,000 bushels representing 25 different varieties among seven crops.
- Expanded the center's research capabilities by conducting site-specific research to evaluate crop variety performance, disease control strategies, cover crops, planting-tillage systems, saline soil management and organic farming practices at off-station research sites near the communities of Oakes, Newburg, LaMoure, Fingal, Dazey, Turtle Lake, Wishek, Robinson, Cathay, Menoken and Buchanan
- Continued to allow producer-owned cattle to serve an important role in implementing the beef feedlot research program. These cattle become the source of data to define feedlot ration performance, along with expanding producers' knowledge of how their herd genetics compare with other producers' herds.

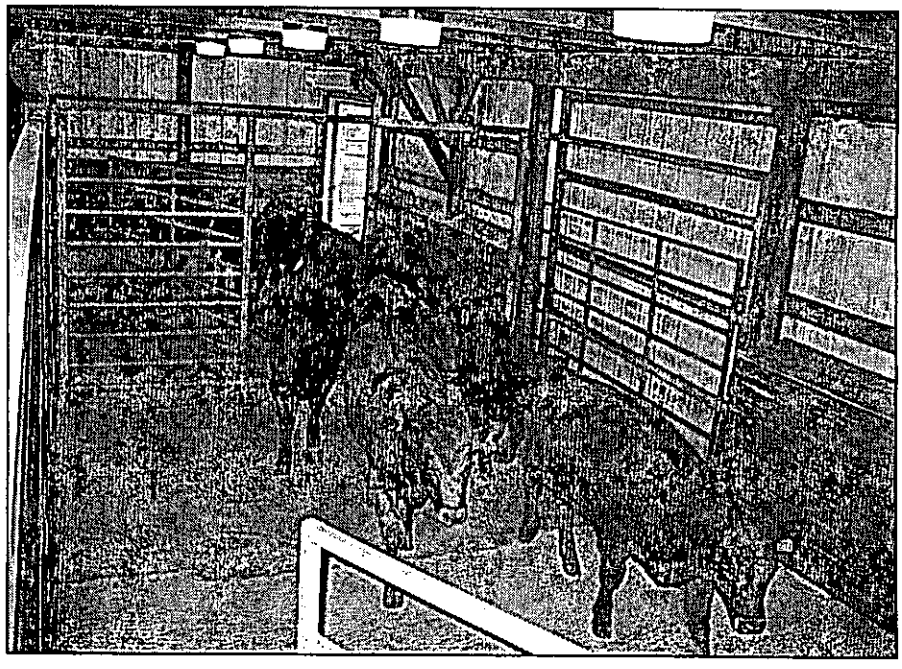
Continued



Michael Wunsch, plant pathologist at the Carrington Research Extension Center, talks to producers about chemical and cultural control for crop diseases.

■ Carrington Research Extension Center (continued)

- Continued to deliver research-based education on livestock manure nutrient management to producers, policymakers and technical service providers through workshops, newsletters, websites, publications and one-on-one consultation
- Recognized the significance of sclerotinia as a major disease problem in soybeans and initiated a series of fungicide evaluations within the CREC's misting systems. Studies have identified fungicide strategies to reduce yield and quality losses.
- Sustained and expanded the series of misting systems that allow CREC and other NDSU scientists to investigate genetic resistance and fungicide efficacy of disease management in wheat, sunflowers, soybeans, dry beans, canola and field peas
- Continued beef feedlot research using a diversity of feeds and contributed information on feeding cattle and utilizing North Dakota feeds to individual producers, feedlots operators, crop commodity organizations, feed manufactures, export trade organizations and others
- Completed the establishment of 15 different fruit-bearing species of crops in 2009. The grant-funded Northern Hardy Fruit project evaluates fruiting plant selections that are hardy in northern latitudes and desired in current or emerging fresh or processed food markets.
- Continued the leadership for NDSU's Discovery Farm project and completed the establishment of a third Discovery Farm in Cass County to assess tile drainage impacts. The first two Discovery Farms were established in McLean and Barnes counties.
- Evaluated glycerol, a coproduct of biodiesel production from canola and a potential livestock feed, in feedlot rations. Glycerol was fed at up to 18 percent in feedlot rations during both receiving and finishing periods without affecting animal performance.
- Expanded research to evaluate the use of cover crops within cropping systems. Cover crop experiments are focused on evaluating different species to assess attributes and challenges associated with utilizing cover crops to achieve soil health and crop rotation benefits.
- Met the challenge from the North Dakota Barley Council to define a nitrogen fertilizer management program that would support the production of 150-bushels-acre malt-quality barley under irrigation
- Designed and constructed a livestock working facility that minimizes stress on cattle and those who work with cattle, reduces labor, increases the flow rate and is relatively low cost and simple to construct. The facility has garnered broad attention as a significant "low-stress" approach for working cattle.



Cattle pass through the low-stress livestock working facility developed at the Carrington Research Extension Center.

AGENCY OVERVIEW

Central Grasslands Research Extension Center - Streeter

North Dakota Agricultural Experiment Station

Agency Statutory Authority

North Dakota Century Code Chapter 4-05.1

Agency Description

The CGREC conducts research for the Coteau region of North Dakota, an area bounded by the Missouri River on the west and the James River on the east and extends from Divide and Burke counties in northwestern North Dakota in a southeasterly direction through Dickey County.

Research objectives must increase the range-carrying capacity of native range emphasizing conservation and preservation, stabilize grass production to compensate for the vagaries of the weather and precipitation as it influences forage production in the dryland agriculture, identify the impact of different management systems upon beef production in the central region and explore the increased use of crop residues and byproducts for the maintenance of the cow herd. CGREC's primary focus is management of grassland acreage which occupies about one-third of the agricultural land in the state and aims to improve production and increase returns to cattle producers.

The CGREC is surrounded by numerous small towns and communities many of which are thriving and prosperous. In addition, the CGREC is located between two counties which rank in the top 10 counties for the production of livestock and forages. This area served by CGREC contains 5 million acres (44%) of the state's rangeland where 42% of the state's livestock is raised on 38% of the state's farms.

Agency Mission Statement

The legislated mission of the CGREC is as follows: "The CGREC shall conduct research designed to fulfill needs within an area bounded by the Missouri River on the west and the James River on the east with research objectives as follows:

1. To increase the range-carrying capacity of native range with emphasis on conservation.
2. Stabilization of grass production to determine how to best compensate for the variability of the weather as it influences forage production.
3. Identification of different management systems on beef production in the central region of the state.
4. Exploration of increased use of crop residues and by-products for the maintenance of the cow herd.
5. To disseminate research results and information for the benefit of the state of North Dakota.

NDSU
North Dakota State University
ND Agricultural Experiment Station

Agency Performance Measures

Per NDCC 4-05.1-19, the State Board of Agricultural Research and Extension (SBARE) presents a status report to the budget section of the Legislative Council. SBARE's most recent presentation to the budget section was on March 11, 2010. The report it gave and provided in written form included the status of the North Dakota Agricultural Experiment Station and the NDSU Extension Service. A copy of the information is on file in the Legislative Council office.

Agency Future Critical Issues

The CGREC administers over 5,000 acres of native rangeland, tame pastures, and crop acreages. Currently, the Center has a commercial herd of 400 cow/calf pairs and 100 yearling heifers. The CGREC has the capability to become a major player in the growth and enhancement of the livestock industry; however, lack of technical staff is a critical hindrance to the growth and development of this Center's potential.

The funding of a forage agronomist by the 2009 legislature and the redirection of funding to hire an animal scientist has opened up new opportunities for the Center to partner with main station scientists as well as work with other agencies and funding sources to provide added assistance to producers in the Coteau region. The agronomist will also assist the director with the demands of the new state-wide Biofuel study which was implemented Spring 2006.

New opportunities are developing in the area of Sustainable Alternative Value-Added Beef Markets. The CGREC must be able to partner with local and regional producers in areas which will include whole systems management of organic, natural, grass-fed, and conventional beef raising systems. Livestock numbers in all segments need to grow to better utilize available resources, including the opportunities presented by new emerging industries (e. g. ethanol). The CGREC must have the necessary staff to be able to serve the Coteau Region as a leader in the Livestock Industry.

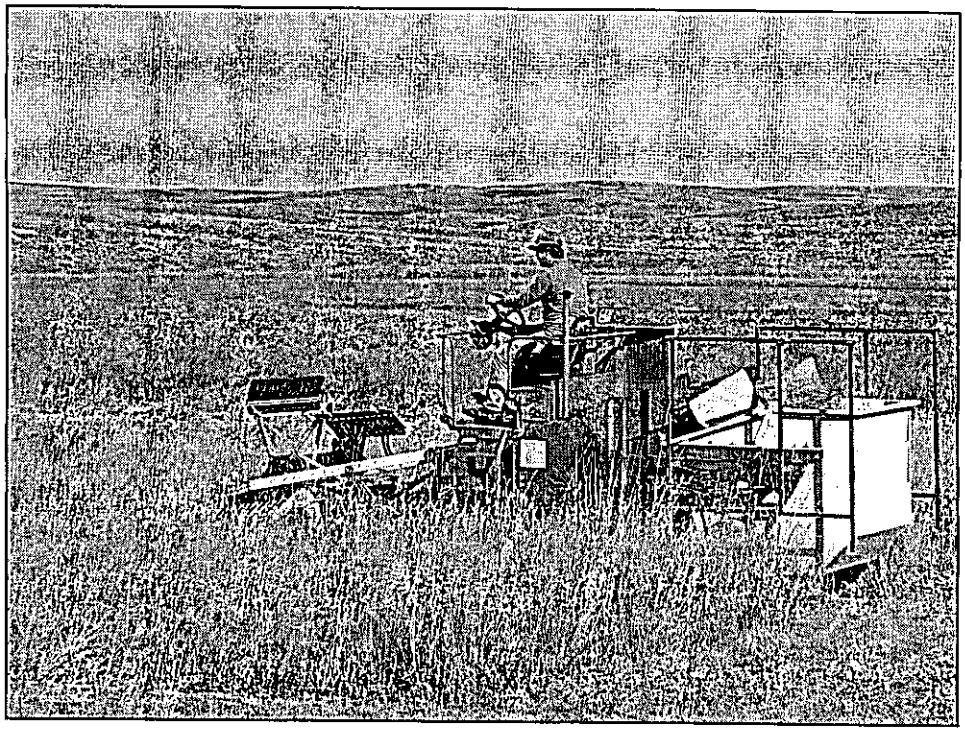
The Medina and Tappen areas, both within 17 miles of the center, have emerged as centers for sustainable and organic crop and livestock production. The Central Grasslands REC is working closely with the Foundation for Agricultural and Rural Resources Management and Sustainability (FARRMS) Board to partner with them to increase sustainable and organic crop production in the area.

The most critical limitation to the accomplishment of the above goals is the workforce at the center. We remain critically short-handed. The costs to continue have depleted our funds for hiring seasonal help and in paying overtime.

Central Grasslands Research Extension Center - Streeter

Here are some accomplishments at the Central Grasslands Research Extension Center during the past two years:

- Obtained funding for a forage agronomy program in 2009 and hired Guojie Wang, who started an extensive legume evaluation trial in spring 2010 and has designed and implemented a study to evaluate the impact of invasive cool-season grasses on the native rangeland in the Coteau region of North Dakota. He also is evaluating soil health aspects of perennial biofuel crops. Wang is working closely with scientists at the NDSU Main Station on other research projects.
- Redirected funding to a new animal science position to evaluate better beef management practices utilizing cow-calf enterprises in the Coteau region of North Dakota and hired Bryan Neville in January 2011 to head this new program.
- Received a grant to coordinate and develop a biomass for ethanol study at seven sites across North Dakota. This study will evaluate several perennial forages for production as biofuels. The center is working with local engineering companies to supply biomass for study in new and innovative biofuel applications.
- Developed a whole-ranch management system and range monitoring program
- Completed a two-year investigation (funded in part by Sweetpro) on the use of ethanol byproducts in first-calf heifer and steer finishing rations
- Initiated a cooperative study with NDSU Main Station scientists to evaluate the effects of grazing cover crops on beef cow performance
- Cooperated with NDSU Main Station scientists and Pfizer Co. on a study of vaccine interference
- Renewed the memorandum of understanding with the Chinese Academy of Science, Institute of Botany, for a scholar exchange program



Guojie Wang, forage agronomist at the Central Grasslands Research Extension Center, harvests biomass plots at the center.

AGENCY OVERVIEW

Dickinson Research Extension Center

North Dakota Agricultural Experiment Station

Agency Statutory Authority

North Dakota Century Code Chapter 4-05.1

Agency Description

The NDSU Dickinson Research Extension Center has an established record of service to the people in the 13-county region south and west of the Missouri River. The DREC operates 4,916 acres of owned land within the region as well as annual land leases needed to accommodate ongoing projects. The land base provides opportunities for a broad perspective in evaluating various agricultural systems that can serve as engines for economic development. This is a continuation of what has taken place for over 100 years. Currently, the DREC assists agricultural producers in solving production problems with agronomy, animal science and range science while integrating new developments. Five major areas are served: agronomy, beef management, bio-security, range management, and sustainable agricultural practices. Faculty and staff are committed to engaging people of the region and to the identification of current economic opportunities while sustaining natural resources for future generations as directed by our mission statement and Advisory Board. Research data and producer ideas are continually considered so the DREC can leverage the latest knowledge to best benefit the people of North Dakota.

Agency Mission Statement

The Dickinson Research Center must be located at or near Dickinson in Stark County. The Center shall conduct research on increasing the carrying capacity of native rangeland, with emphasis on conservation and preservation for future generations. The Center shall conduct research on grass production to determine how to best compensate for the vagaries of the weather as it influences forage production in the dry land agriculture of western North Dakota. The Center shall conduct research at the ranch location in Dunn County with beef cattle breeding, feeding, management and disease control for the benefit of livestock producers of western North Dakota and the entire state. The Center shall conduct research designed to increase productivity of all agricultural products of the soil by maintaining or improving the soil resource base in the dry land agricultural region of southwestern North Dakota by the identification of adapted crop species and superior crop cultivars; propagation and distribution of selected seed stock; and development of profitable cropping systems that achieve the necessary balance between profitability and conservation of all natural resources. The Center shall disseminate research results and information for the benefit of this state.

NDSU
North Dakota State University
ND Agricultural Experiment Station

Agency Performance Measures

Per NDCC 4-05.1-19, the State Board of Agricultural Research and Extension (SBARE) presents a status report to the budget section of the Legislative Council. SBARE's most recent presentation to the budget section was on March 11, 2010. The report it gave and provided in written form included the status of the North Dakota Agricultural Experiment Station and the NDSU Extension Service. A copy of the information is on file in the Legislative Council office.

Agency Future Critical Issues

The DREC needs to continue to resolve lost income dollars from oil revenue. The last two legislative sessions have included funding from the permanent oil tax trust fund for DREC operating expenses. The estimated income shortfall during the last session was estimated at $925,000 and $925,000 from the permanent oil tax trust fund was included in Center funding. This funding was available for defraying the costs of operations for the biennium beginning July 1, 2009, and ending June 30, 2011. Similar funding needs to continue if the Center is to maintain operation.

The Dickinson Research Extension Center Advisory Board submitted two initiatives to the State Board of Agricultural Research Education for this legislative session. The first is related to soil health for production agriculture. The DREC has initiated original research to help determine the most cost effective ways to increase soil health in order to obtain the greatest benefits. The DREC has dedicated land to demonstrate diverse species cover cropping and crop rotations with managed grazing in a no-till cropping system. General goals are as follows: increase water harvest and soil fertility by increasing organic matter, prevent soil erosion, overcome salinity issues, find better crop varieties and rotations, and obtain the best possible returns.

The second initiative involved animal health and disease management. The DREC, in cooperation with the NDSU Veterinary Diagnostic Lab and the ND State Veterinarian, provides important service and support to producers in their efforts to enhance health and productivity of herds, and in managing disease outbreaks when they occur The DREC is the Rapid Response Team "home" and would be the base for field investigation, herd health support, and veterinary support. The mobile diagnostic lab currently housed at the DREC would be available for regular herd use, and then rapid, field deployment as needed. Educational and service opportunities would also exist for various services in beef marketing that foster additional economic growth.

The Center would be appreciative of enhancing funding that supports the efforts of SBARE through the North Dakota Agricultural Experiment Station and NDSU Extension Service.

Dickinson Research Extension Center

Here are some accomplishments at the Dickinson Research Extension Center during the past two years:

- Continued to be a major resource for production agriculture opportunities in the 13-county region south and west of the Missouri River. Local farmers and ranchers advise center researchers, who collaborate with producers and government agencies to achieve this mission.
- Continued its Extension efforts, such as conducting soil fertility and off-site winter wheat variety trials, alfalfa variety trials under saline conditions, double-crop annual forage demonstrations and corn variety trials
- Developed an optimal system of grazing based on animal-plant-microbe interactions
- Helped refine systems management options, including precision agriculture, crop rotations, cover crops and managed grazing that can impede weed and pest issues, through research on no-till and organic farming
- Continued to assist NDSU Main Station scientists in variety development and provided the grain samples for quality analyses (milling/baking) on campus
- Worked with NDSU researchers and private enterprise to develop high-frequency radio-frequency identification ear tags to offer livestock producers a durable tag that meets industry rules and regulations for source and age verification
- Collaborated with educational institutions, and state government and federal governments to monitor the health and safety of livestock production as part of the center's livestock biosecurity efforts. The center is a National Incident Management System- and Incident Command System-certified first responder team in North Dakota.
- Worked closely with NDSU entomologists on pest control, specifically the wheat stem sawfly and wheat stem maggots.
- Cooperated with the Bureau of Land Management under a 10-year agreement to facilitate and implement work on range management and restoration

Continued

Researchers at the Dickinson Research Extension Center check out pest damage in a field.

■ Dickinson Research Extension Center (continued)

- Continued its agronomic research in variety development and disease, weed and pest control. In 2010, the center evaluated 33 varieties of barley, 50 varieties of durum, 49 varieties of hard red spring wheat, 33 varieties of oats, 22 varieties of winter wheat and 20 varieties of white spring wheat. The center also conducted variety trials on nontraditional crops, including 15 varieties of peas, nine varieties of winter rye, three varieties of winter speltz, eight varieties of emmer, 10 varieties of potatoes and three varieties of winter triticale. The center has dedicated 15-plus acres to a three-year rotation to support variety development.
- Hosted the U.S. Department of Agriculture's Sustainable Agriculture Research and Education (SARE) program for the North Dakota. The center's assistant director and SARE sustainability program coordinator directs programming efforts for educators, producers and the public in developing safe, profitable and sustainable enterprises related to food production.
- Worked with the North Dakota Health Department and other governmental agencies on a waste management control and water quality protection research project. For example, the DREC Manning Ranch feeding operation is used to collect water quality runoff data and demonstrate an environmentally beneficial and cost-effective management protocol for the state's producers.
- Began working with producers to minimize the impact of livestock manure; capture the nutrient, soil and economic values of livestock manure; and protect and promote the positive usage of three natural resources: air, water and land
- Cooperated with multistate efforts to develop strategies for management that integrates early weaning, saving native pasture forage and annual forage grazing. Wintering method research has shown producers how to reduce hay waste and wintering costs.

Dickinson Research Extension Center researchers have helped develop high-tech radio-frequency identification ear tags that meet cattle industry requirements for age and source verification.

AGENCY OVERVIEW

Hettinger Research Extension Center

North Dakota Agricultural Experiment Station

Agency Statutory Authority

North Dakota Century Code Chapter 4-05.1

Agency Description

The HREC is a semi-arid site located in southwest North Dakota, providing the most southerly NDSU location in the non-glaciated portion of North Dakota as a site for its agronomy research program. The HREC also is located at the center of the North Dakota sheep industry, the focus of one of its animal research programs, and in an area of rapidly growing livestock feeding ventures, another focus of animal research at the HREC. Additionally, the HREC is located in a region where much of the land base is in the Conservation Reserve Program, which has resulted in additional research evaluating potential changes in the CRP program and how these changes may affect upland native and game bird populations. A new research program evaluating low-cost rangeland monitoring strategies on U.S. Forest Service lands and wildlife/livestock interactions has resulted in a significant increase in the quantity of rangeland research conducted at the HREC throughout the Western Dakotas. Research at HREC involves the disciplines of animal science, range science, wildlife science, agronomy, and agri-business and applied economics. Collaboration is with Main Station scientists, Branch Station scientists, U.S. Forest Service, grazing associations, university scientists from WY, SD, and MT, and USDA research entities in these research disciplines to improve productivity of livestock, grazing, and cropping systems, and to improve economic development of the region.

Agency Mission Statement

The Hettinger Research Extension Center, an outreach of North Dakota State University, provides applied research and education in agriculture and environmental sciences that will enrich the lives of North Dakotans and support economic development.

Agency Performance Measures

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NDSU
North Dakota State University
ND Agricultural Experiment Station

Agency Future Critical Issues

Increases in fuel, fertilizer, equipment, and animal and personal safety compliance necessitate an increase in Equipment and Operating Pool.

Additional state funding for the core program at the HREC is needed to adequately support and conduct our baseline research programs, specifically weed science, rangeland and wildlife science, and animal science.

Facilities are in need of deferred maintenance funding; specifically fencing, frontage road, water/well maintenance, ventilation in barns, and general office and bunkhouse maintenance.

New facility construction and expansion of existing facilities is needed (agronomy lab, lambing barn, lamb feedlot).

Hettinger Research Extension Center

Here are some accomplishments at the Hettinger Research Extension Center during the past two years:

- Distributed foundation seed produced at NDSU Research Extension Centers, making new varieties available to southwestern North Dakota producers
- Conducted crop and pesticide trials, as well as off-station variety testing at Regent, Scranton, New Leipzig, Selfridge, Reeder, Glen Ullin and Mandan, N.D., and Bison and Ralph, S.D.
- Began evaluating new varieties and technologies for growing drought-tolerant corn and wheat
- Collaborated with the Carrington Research Extension Center's beef research program to evaluate weaning strategies for May-born calves, including the use of early weaning and the evaluation of conventional vs. natural feeding practices and their resulting economic impact
- Conducted two producer ram tests: the Spring Performance Ram Test, which targets terminal sire-type rams for a 70-day test; and the Dakota Fall Performance Ram Test, which targets the 140-day Rambouillet Certificate of Merit program, one of three Rambouillet ram tests in the nation
- Conducted the NDSU Shearing School and Beginners Sheep School in conjunction with the NDSU Extension Service
- Continued support of the HREC video conference facility, computer desktop support in southwestern North Dakota and 21st Century Learning Centers
- Initiated "Habitat factors for sharp-tailed grouse on the Grand River National Grasslands," a research project with the U.S. Department of Agriculture-Forest Service
- Began "Evaluation of rangeland restoration and wildlife habitat on the Elkhorn Ranch near Medora, N.D.," a research project with the USDA-Forest Service
- Started a research project on the evaluation of cover crops and alternative cropping systems for sheep grazing and wildlife habitat
- Began a research project on the use of sheep grazing to control or eliminate alfalfa weevil
- Continued "Evaluation of remote sensing technologies on the Grand River National Grasslands, McKenzie National Grasslands and Medora Ranger District," a research project with the USDA-Forest Service and the respective grazing associations that will utilize 1 mm-resolution photographs to estimate forage use and production

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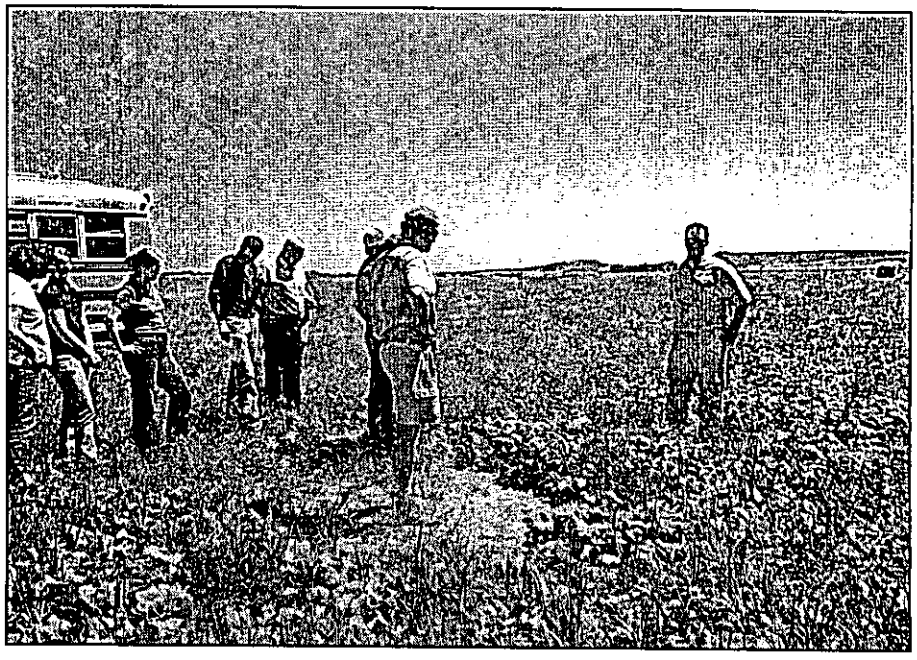
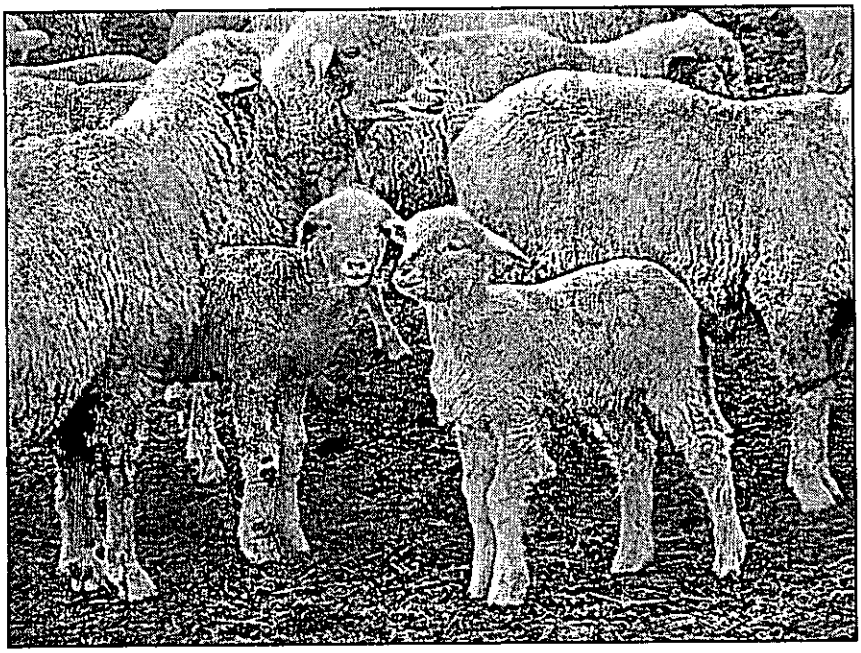


Visitors learn about cover crop production research at the Hettinger Research Extension Center during field day activities.

■ Hettinger Research Extension Center (continued)

- Continued work on the "Environmental and economic consequences of multiple-use management of agricultural lands in the northern Great Plains" research project
- Proceeded with "Value-added animal production," a research program focused on evaluating forage, grain, byproduct and marketing alternatives in calf backgrounding. New projects are targeting "natural"-based production of meats, contributing to research for the Beef Systems Center of Excellence.
- Continued with the "Expanding ruminant livestock production in the northern Great Plains: an assessment of resources, opportunities and constraints" research project
- Continued a research project on alternative lamb finishing systems, including the use of ethanol coproducts in lamb finishing rations and the evaluation of "natural" lamb production
- Continued to evaluate alternatives for decreasing embryonic death loss in ewes and in fetal programming of sheep offspring
- Continued to evaluate land transfer patterns in the northern Great Plains across the past 20 years



Researchers at the Hettinger Research Extension Center continue to study alternative lamb-finishing programs.

AGENCY OVERVIEW

Langdon Research Extension Center

North Dakota Agricultural Experiment Station

Agency Statutory Authority

North Dakota Century Code Chapter 4-05.1

Agency Description

The Langdon Research Extension Center (LREC) is located one mile east of Langdon, ND on US highway five. The agricultural land base at the station consists of 389 owned acres and an additional 320 acres under lease agreement. The LREC serves a nine county region located in northeast North Dakota (ND) and has ND's highest precipitation rates, coolest temperatures, and richest productive soils. The climate creates high levels of diverse crop production and recurring disease problems.

The LREC has a strong tradition of assisting the region's producers meet agricultural production challenges throughout the course of its existence. In 1993, the LREC redirected much of its research programming to focus on the significant increase of disease and insect pressure associated with its climate. This redirected applied research programming has provided producers with proven cultural practices and advances in chemical applications that minimize disease and insect pressures in all regions of ND.

Some very positive changes have occurred with the start of the 21 st century. Since 2001, the LREC has significantly enhanced its overall agricultural research programming with the addition of a crop protection scientist, a director that also serves the region with an emphasis in rural economic/community development, increased foundation seed stocks program and a farm business management instructor. The farm business management instructor is employed through a partnership with Lake Region State College and currently serves over 40 farm families. In addition, a full service agricultural based learning center was constructed in 2004 that greatly enhances outreach and extension efforts delivered to the regions agricultural industry. Finally, additional programming has been created that is working to employ LREC resources as an engine for rural community and economic development in partnership with the region's economic developers.

Agency Mission Statement

The Langdon Research Extension Center will conduct applied agricultural research that enhances the quality of life for the regions citizens with a responsive, flexible and accessible overall agricultural based research program. This programming will combine the concepts of agricultural research, information technology and community/economic development while conserving the regions natural resources.

NDSU
North Dakota State University
ND Agricultural
Experiment Station

AGENCY OVERVIEW: Langdon Research Extension Center

Agency Performance Measures

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Agency Future Critical Issues

Acquiring and maintaining adequate resources that allow the LREC to remain proactive and responsive to agricultural production problems and challenges for producers is a critical issue. Increases in crop disease and agronomic research programming have signaled a critical need to construct a new agronomy and pathology lab on station. The current area used as an agronomic and pathology lab is placing limits on the research currently needed.

In 1962 a seed cleaning plant was constructed to support the foundation seed stocks (FSS) program. This effort supplies area producers and seedsman with high quality foundation seed. The LREC seed cleaning plant still uses the same facility and equipment that was employed in 1962. The facility is in need of renovation after 48 years of use. In addition, numerous safety violations have been identified that can only be resolved with a renovation.

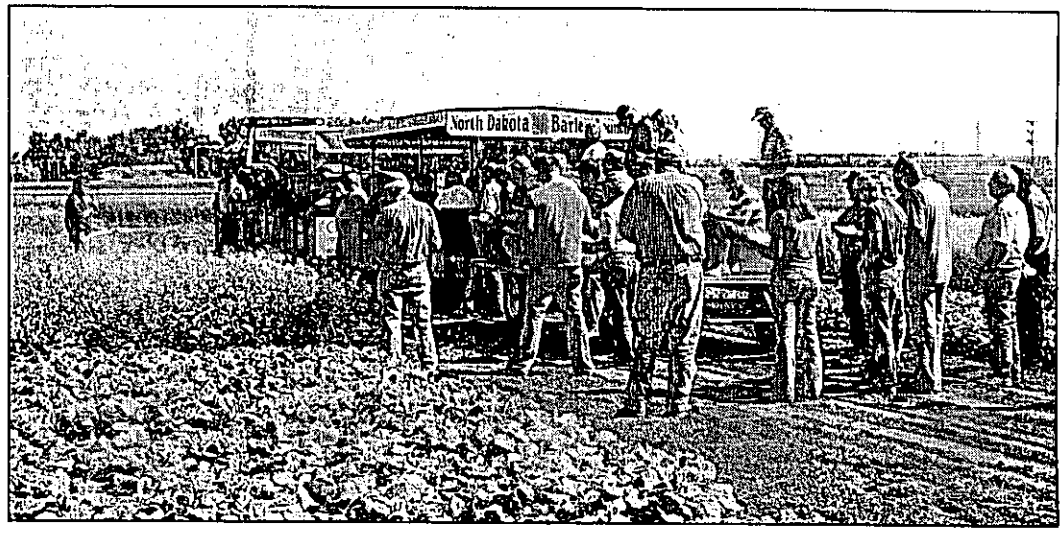
Local producers, many commodity groups and other ag agencies have identified soil quality as a major issue in ND. The region served by the LREC has been identified as having one of the most significant soils quality problems in ND. Saline soils in this region are robbing producers of higher yields and quality in the crops they grow. Soil scientists are needed to begin addressing this problem.

The newly constructed Vic Sturlaugson Learning Center has afforded faculty and staff a new office headquarters as well as meeting room faciltities for educational events. The LREC is now in a position to implement an active extension outreach program for producers and families in northeast ND. Providing an Extension area specialist to the LREC will bring to clients an active outreach program based out of the LREC.

Langdon Research Extension Center

Here are some accomplishments at the Langdon Research Extension Center during the past two years:

- Celebrated 100 years of agricultural research and outreach to the North Dakota agricultural industry
- Completed the installation of a green-energy geothermal heating and cooling system in the headquarters and learning center facility in 2010
- Continued agronomic testing of traditional crops and increased research on other crops being strongly considered by the region's producers to enhance current crop rotations and profitability. The center has agronomic research plots in Cavalier, Pembina, Towner, Ramsey, Nelson and Benson counties.
- Conducted field day educational tours at each of these locations for producers and other ag industry partners
- Concluded a five-year crop disease research effort to test the most efficient technologies and practices for applying chemical inputs to reduce disease pressure
- Continued a very active disease research effort to help producers make more timely and efficient decisions about controlling crop diseases, especially leaf disease, fusarium head blight, sclerotinia and blackleg, in cereal grains, oilseeds and other row crops
- Partnered with crop breeders, weed scientists, plant pathologists, soils scientists and others from the NDSU Main Station in Fargo in the development of new hard red spring wheat, durum, barley and potato varieties.
- Provided producers with research results on using fungicides to minimize pasmos in flax
- Collaborated with other Research Extension Centers across North Dakota by replicating many research experiments to provide North Dakota producers with dependable research data to enhance their crop production decision making
- Increased its canola research effort by working with NDSU's new canola breeder and the Center of Excellence for Oilseed Development to develop canola varieties with enhanced yield and oil content
- Began a five-year research and educational effort in cooperation with Bayer CropScience, Ducks Unlimited, the University of Minnesota and South Dakota State University to provide producers with best management practices for winter wheat production to increase winter wheat acres in the state, benefiting producers and resulting in more nesting habitat for waterfowl
- Distributed foundation-grade seed grown and conditioned at the center. The center produces foundation seed for hard red spring wheat, durum, barley and flax varieties and hopes hope to soon produce NDSU-developed canola seed for producers.
- Maintained large perennial and annual flower demonstration gardens to assist the public and nursery industry in selecting landscape plantings
- Continued a collaborative effort with the North Dakota Grape Growers Association to test the hardiness of grape varieties for adaptability to North Dakota's climate



Producers check out crop production plots during field day events at the Langdon Research Extension Center.

AGENCY OVERVIEW

North Central Research Extension Center - Minot

North Dakota Agricultural Experiment Station

Agency Statutory Authority

North Dakota Century Code Chapter 4-05.1

Agency Description

The NCREC was established in 1945 and is located one mile south of Minot on Highway 83. The 1,200-acre center specializes in crop research and extension education activities and foundation seed production. Approximately 1,500 owned, rented, and contracted acres are planted for foundation seed production each year. The NCREC evaluates conventional and new crops for production in the region and explores weed management and cropping systems to improve the economic potential of crop production in the north central region. The NCREC is a leader in North Dakota on production and disease research of canola, pea, lentil, and chickpea crops, in addition to the conventional crops of HRS and durum wheat, barley, flax, sunflower, and oat. The NCREC works closely with business and economic development leaders in the region to improve the economic vitality of north central North Dakota.

Agency Mission Statement

The North Central Research Extension Center conducts research to increase agricultural productivity in north central North Dakota. The center serves agricultural producers in a 12- county region surrounding Minot through crop research, foundation seed production and dissemination, and extension education programs in crop and livestock production. Studies at the center focus on crop variety and new germplasm evaluation, weed control, cropping systems, crop pest management, reduced tillage and soil fertility. Research is conducted on cereal grains, oilseeds, legumes, forages and new specialty crops.

Agency Performance Measures

Per NDCC 4-05.1-19, the State Board of Agricultural Research and Extension (SBARE) presents a status report to the budget section of the Legislative Council. SBARE's most recent presentation to the budget section was on March 11, 2010. The report it gave and provided in written form included the status of the North Dakota Agricultural Experiment Station and the NDSU Extension Service. A copy of the information is on file in the Legislative Council office.

NDSU
North Dakota State University
ND Agricultural
Experiment Station

Agency Future Critical Issues

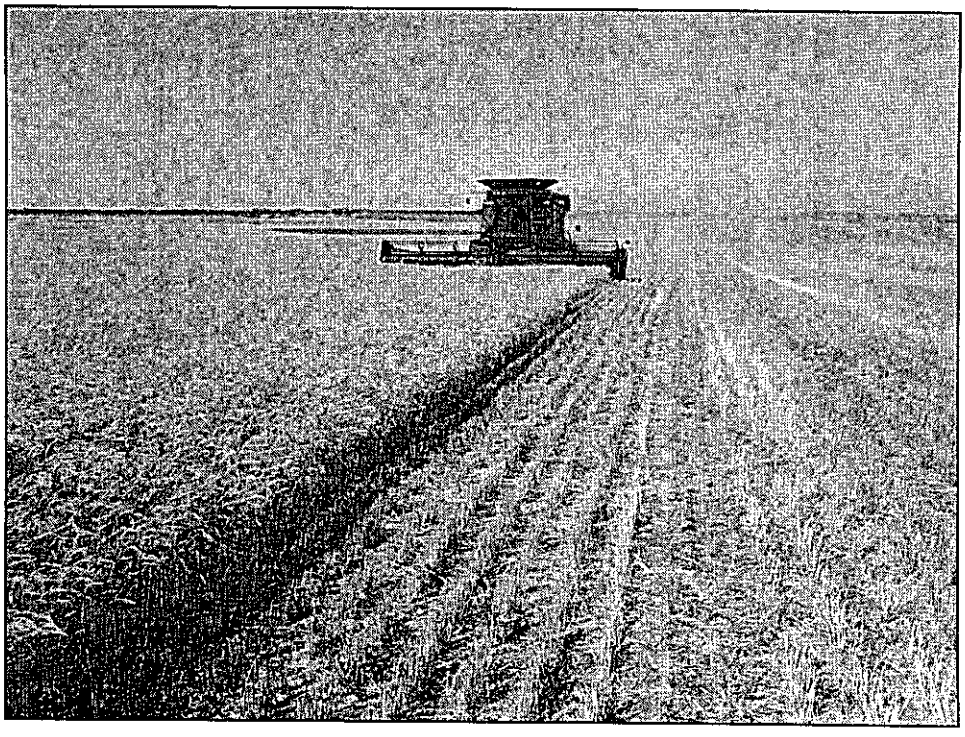
- Construct a foundation seed conditioning plant adequate to handle peas, lentils, beans, and chickpeas (in addition to small grains and oilseeds) for the growing pulse crop industry and new NDSU breeding programs. Cost $3,000,000.
- Need permanent funding for canola breeding and development position currently working at the NCREC.
- Need an Extension soils position to address the saline and sodic soils problems causing decreased productivity.
- Base funding for personnel to address the research and extension needs for canola, pulse crops, and cereal grains to meet the needs of growers and the increase of processing plants in the Minot area.
- Construct a building to house small plot research equipment.
- Increased operational costs.
- Removal of old seedhouse.
- Tile drain yard.
- Encroachment from City of Minot.

North Central Research Extension Center - Minot

Here are some accomplishments at the North Central Research Extension Center during the past two years:

- Continued the foundation seed program's mission of supplying seedsmen and producers with genetically pure foundation grade seed. The center provided seed to 310 active seed customers in 32 counties across the state in 2010. Eight different crops and 27 different varieties are available at the center. Popular varieties/crops include Celebration barley, Tioga durum, Omega flax, Barlow hard red spring wheat and Pennell lentils.
- Demonstrated that an experimental herbicide provides 98 to 100 percent yellow toadflax control two years after application, compared with 23 to 60 percent for the commercial standard
- Instructed growers on weed resistance management after identifying foxtail and wild oat resistant to commonly used wheat herbicides in northwestern North Dakota
- Demonstrated the effectiveness and proper use patterns of soil-applied herbicides in minor-use crops to control problem weeds and help manage herbicide resistance
- Conducted residue trials with USDA IR-4 that will lead to new pesticide registrations for crop desiccation, weed and insect control, and repelling pheasants
- Completed the 11th year of a 12-year crop rotation study to determine the impact of crop sequence on diseases in canola
- Demonstrated the effectiveness of new and safer crop desiccants for several North Dakota broadleaf crops
- Conducted early generation and advanced yield trials for NDSU's Oilseed Development Center of Excellence for the identification of high-yield, high-oil canola lines
- Conducted seed increase production of promising canola lines for the Oilseed Development Center of Excellence in both greenhouse and field settings
- Operated an 80-hp diesel tractor on 100 percent canola biodiesel for six years. The center also is operating a 43-hp diesel tractor on 100 percent canola biodiesel for winter snow removal.

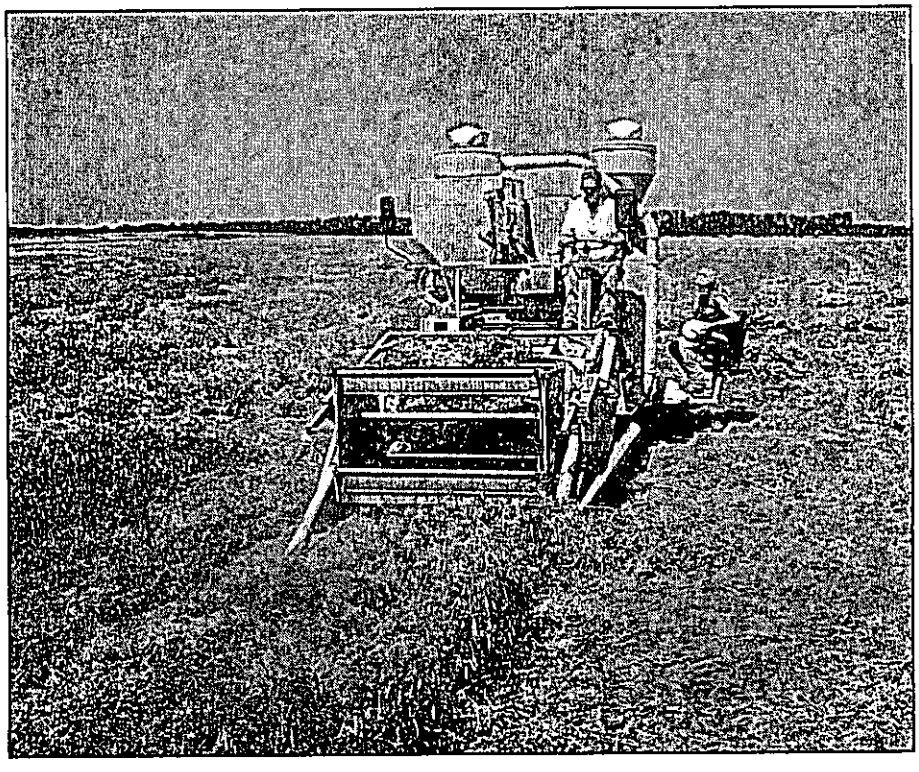
Continued



The North Central Research Extension Center supplies foundation-grade seed for 27 crop varieties.

■ North Central Research Extension Center (continued)

- Completed the headquarters addition building project
- Conducted Extension outreach programs such as crop pest clinics, field tours, meetings and workshops that provide producers, agricultural industry leaders, private crop consultants and others with information to make decisions on crop pest management, cropping systems and variety selection
- Continued to serve as a neutral source of information on relative performance, efficacy and applicability of crop protection products, varieties and other inputs
- Conducted bioenergy crop research to measure biomass production from switchgrass and other perennial grasses and legumes for cellulosic ethanol production
- Utilized the NCREC greenhouse facility for population advancement/seed increase of mapping populations for NDSU's pulse breeding program
- Performed hybridizations of field peas, lentils and chickpeas in the greenhouse to lay the foundation for the NDSU pulse breeding program
- Conducted field experiments and managed the day-to-day operation of the NDSU pulse breeding program, including data collection, seed analysis and field trial management
- Coordinated and conducted the analysis of protein and oil samples for 16 crops from NDSU Research Extension Centers
- Coordinated statewide field pea, lentil and chickpea core/variety trial testing
- Conducted advanced yield and quality trials that tested NDSU and other germplasm
- Continued to work closely with the Minot Area Development Corporation on new agriculture processing industries and containerized intermodal shipping of agricultural products internationally through the port of North Dakota



North Central Research Extension Center assistant pulse crop breeder, Shana Pederson, harvests peas from the NDSU pulse breeding program.

AGENCY OVERVIEW

Williston Research Extension Center

North Dakota Agricultural Experiment Station

Agency Statutory Authority

North Dakota Century Code Chapter 4-05.1

Agency Description

The Williston Research Extension Center (WREC), established in 1907 and relocated to the present site in 1954, is an 800-acre rain-fed farm in northwestern North Dakota near the city of Williston. In 2001, an additional 160 acres were purchased in Nesson Valley, and an irrigated research and development project was established to promote irrigation development and high-value, value-added crop production and processing. Studies at the WREC are conducted on crop variety evaluation, herbicide performance and other cultural management research, cropping systems, and soil and water conservation practices. The main dryland crops are spring wheat and durum. Annual pulse crops, barley, oats, safflower, canola, flax, alfalfa and other crops also are grown as cash crops or for livestock feed. WREC research is intended to increase the producer's net profit, support crop diversification, and encourage more intensive cropping and irrigation development. Research on soil and crop management systems for sprinkler irrigation and alternative irrigated high-value and value-added crops, including the Western Malting Barley program, are conducted for MonDak region producers in cooperation with the Montana State University Eastern Agricultural Research Center (EARC), Sidney. The WREC also conducts safflower, winter wheat and durum breeding research and variety evaluations in cooperation with Montana State and NDSU scientists. The WREC produces, conditions and distributes foundation seed of adapted crop varieties to area farmers. Formal cooperation between the NDSU WREC and Montana State EARC was established in January 1994, with a single director responsible for coordinating, broadening and enhancing research programs and educational delivery systems for the MonDak region.

A building addition to the WREC's Ernie French Center is under construction and is scheduled to be completed by June 2011. This 10,072-square-foot addition will provide research laboratories for irrigation, agronomy, soils and horticulture research and additional office space.

Agency Mission Statement

The Williston Research Extension Center conducts research to increase agricultural productivity in the semiarid region for northwestern North Dakota while achieving a necessary balance between profitability and conservation of natural resources. Research on soil and crop management systems for sprinkler irrigation and alternative irrigated high-value/value-added crop production at the Nesson Valley site is conducted in cooperation with the Montana State University EARC, U.S. Department of Agriculture-Agricultural Research Service's Northern Plains Agricultural Research Laboratory, Sidney, Mont., and cooperating NDSU and other university scientists.

NDSU
North Dakota State University
ND Agricultural Experiment Station

Agency Performance Measures

Per NDCC 4-05.1-19, the State Board of Agricultural Research and Extension (SBARE) presents a status report to the budget section of the Legislative Council. SBARE's most recent presentation to the budget section was on the report it gave and provided in written form, including the status of the North Dakota Agricultural Experiment Station and the NDSU Extension Service. A copy of the information is on file in the Legislative Council office.

Agency Future Critical Issues

A switch to a more intensive and diversified cropping system since 1990 has resulted in a corresponding 1.2 million acre decrease in summer fallow acres, incrementally increasing net profit per acre. Pea and lentil acreage in the MonDak region increased to 900,000 acres in 2010, and production of other broadleaf alternative crops also has increased significantly.

With the reduction of fallow acres and more intensive management of traditional crops under dryland conditions, no-till crop production management recommendations are limited by the lack of technical support/research for crop production systems, land management and soil health in the direct-seeding system approach to crop production. Technical support at the WREC is needed for this research. The center also has a critical need for a plant pathologist to evaluate and research crop disease impacts under dryland and irrigated cropping systems.

Developing superior varieties is a sustainable form of rural economic development. Producers in the MonDak region are able to grow more than 25 different crops. WREC has an urgent need for additional technical support to conduct variety testing in each of these crops in both dryland and irrigated cropping systems.

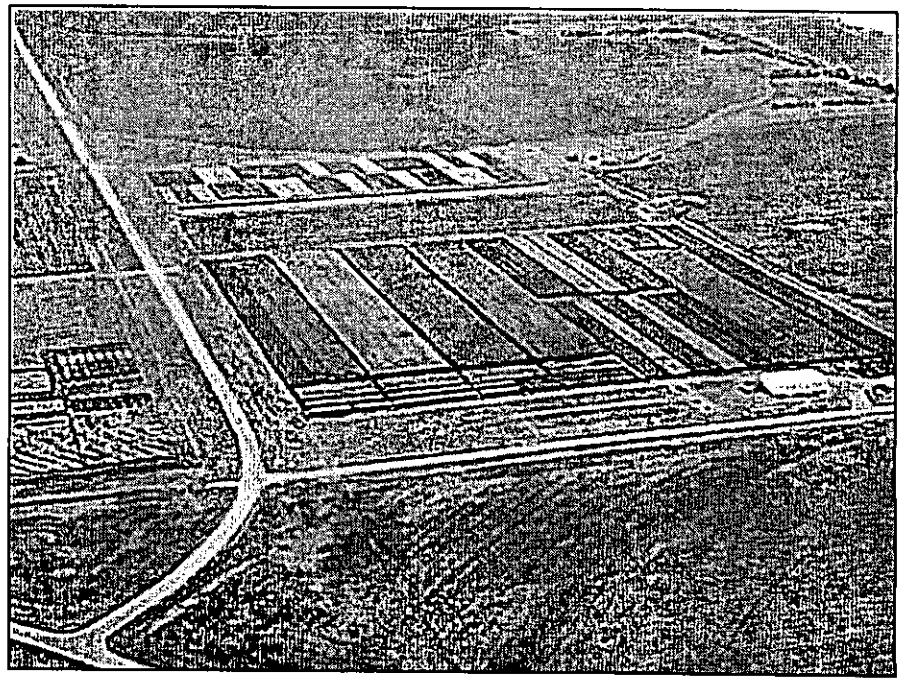
The WREC also needs a new seed plant to condition foundation seed to replace the current seed conditioning plant that was built in 1954. The ability to condition pulse crops efficiently and effectively is urgently needed.

Williston Research Extension Center

Here are some accomplishments at the Williston Research Extension Center during the past two years:

- Evaluated the performance and adaptation of new and established crop cultivars and crop cultural practices to improve productivity of agricultural products and reduce inputs in partnership with the Montana State University Eastern Agricultural Research Center (EARC), Sidney. Major crop varieties were tested on dryland and irrigation at the WREC and six off-station locations in Burke, Divide, Mountrail, McKenzie and Williams counties.
- Collaborated on an NDSU research project conducted at six locations that revised the nitrogen recommendations for wheat. The new N recommendations allow in-state regionalization and are based on a modern data set.
- Conducted research and demonstration projects on potatoes and sweet potatoes for the french fry and food market industry; malting barley in partnership with the malt barley industries; value-added safflower, durum and winter wheat variety development collaboratively with research scientists in Montana and Minnesota and at NDSU; safflower weed control; pulse crop production and variety selection; horticultural crops; and overhead irrigation water and crop management
- Conducted bioenergy crop research on biomass production from switchgrass and other perennial herbaceous crops, and small-grain ethanol research cooperatively with the Green Vision Group on an energy sugar beet project
- Hired an irrigation scientist in 2010 to conduct irrigated research and development in Nesson Valley, which is 23 miles east of Williston
- Installed automated variable-rate sprinkler systems on two overhead linear irrigation systems to allow variable-water-rate application research on crop water use at the irrigation project in Nesson Valley. In 2010, irrigated research was conducted on 17 crops and included variety testing as well as management practices to improve water use efficiency.
- Initiated research comparing ground water and surface (river) water at the center's research and development irrigation project
- Worked with NDSU's high-value crop production scientist to evaluate a collection of 20 varieties of grapes for adaptation to western North Dakota and winemaking

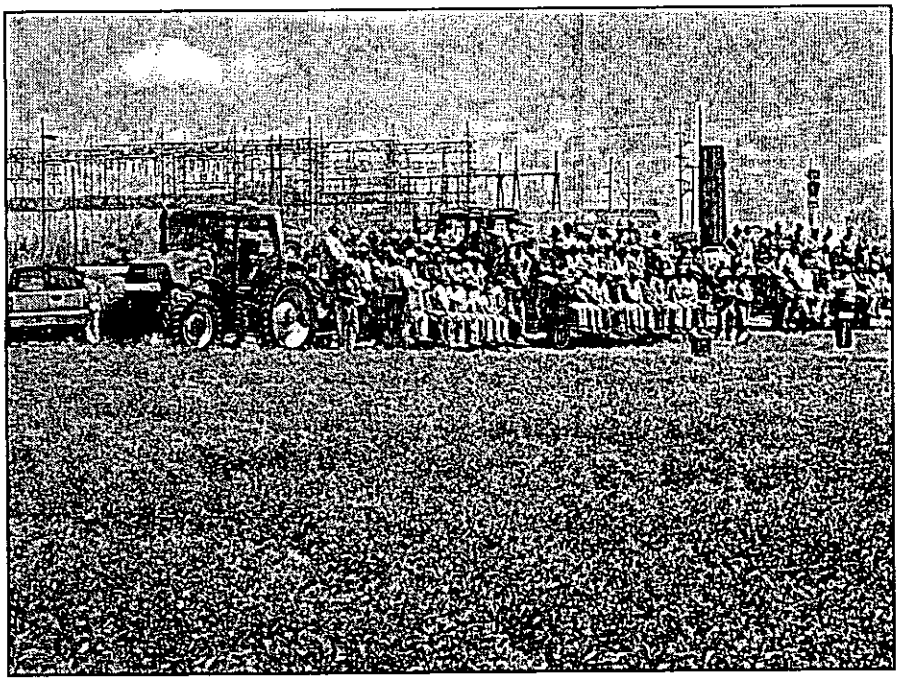
Continued



Researchers at the Williston Research Extension Center conduct variable-water-rate application research at a 160-acre irrigation site in Nesson Valley east of Williston.

■ Williston Research Extension Center (continued)

- Cooperated with researchers at NDSU and the University of Minnesota on potatoes and other commercially viable horticultural crops, including sweet potatoes, onions and fruits
- Conducted safflower weed control research, which resulted in Thifensulfuron (Harmony SG) receiving a label for use on safflower in 2010
- Collaborated with Montana State University in winter wheat variety development, which resulted in a joint release of the hard red winter wheat variety "Decade"
- Participated in the development of crop varieties released by NDSU, including Barlow and Mott hard red spring wheat, Tioga durum, Souris and Rockford oats, Westhope crambe and Pinnacle barley
- Produced, conditioned and distributed foundation seed of new NDSU varieties as well as popular older varieties, including Steele-ND, Mott and Barlow hard red spring wheat; Tioga, Alkabo and Grenora durum; Decade and Jerry hard red winter wheat; Pinnacle barley; Riveland and Pennell lentils; Finch and MonDak safflowers; and Cruiser and K-2 field peas
- Conducted pulse crop research in cooperation with NDSU pulse breeders, NDSU's North Central Research Extension Center and the U.S. Department of Agriculture's Agricultural Research Service in Pullman, Wash., on variety development and evaluation of field peas, lentils and chickpeas, and improving management production practices
- Conducted research on the effect of sawfly on wheat and durum production at six sites in western North Dakota in cooperative with NDSU entomologists
- Participated in the annual MonDak Ag Open and agricultural tours of the area to build partnerships and alliances among growers, economic development groups, agribusinesses and food processors
- Continued to conduct dryland, irrigation and pulse crop field days and an irrigation workshop; host winter workshops to update producers on new varieties and crop management strategies; and collaborate with the EARC to publish an annual agricultural regional research report, which is distributed to producers and Extension agents in the MonDak region



Field day events give visitors a chance to see the progress of crop production research at the Williston Research Extension Center.

2011-13 Capital Improvement and One-time Needs as Ranked by SBARE

NDSU North Dakota State University ND Agricultural Experiment Station | ND Agricultural Experiment Station

1. Research Greenhouse Complex – Final Phase – $6,991,650 (BL-3 portion $2,502,931 special funds)

The NDAES greenhouse complex needs secure greenhouse space to carry out research on crops that meet consumer and customer demands. Completion of this facility will provide conventional, BL-2 and BL-3 facilities desperately needed for 21st century research agendas.

2. Agronomy Laboratories – $5,275,000

Existing agronomy laboratories at CREC, HREC and LREC are in need of replacement. Current facilities were not designed as laboratory space (e.g., potato storage or old granary), making work conditions inefficient and unhealthy. A new facility at CGREC would provide space for a new program investigating crops for bioproducts.

3. Seed Conditioning Plants – $8,400,000

The seed cleaning facilities at NCREC, CREC, LREC and WREC are in need of replacement. Facilities are old and/or not functional for today's market. Parts on some equipment are no longer available; new technology in seed cleaning/conditioning would allow North Dakota farmers to obtain high-quality seed of new varieties in a timely manner.

One-time deferred maintenance

The estimated total outstanding deferred maintenance for the Agricultural Experiment Station is $8,406,803, per the most recent master plan. This figure encompasses repairs of facilities for worker safety reasons, ADA compliance, and to improve the overall infrastructure by preventing further deterioration. The amount of $8,406,803 is only a best estimate at this time. A one-time request of $4,203,401 would be 50 percent of the items on the master plan list.

NDSU Extension Service North Dakota State University | NDSU Extension Service

4-H Conference Center

A year-round learning/conference center located at Western 4-H Camp near Washburn is needed to expand youth camping opportunities and provide an affordable alternative for in-service trainings, workshops, conferences, and community and family events – ($2,500,000 general fund request and $1,300,000 special fund request)

One-time Requests

Interactive Video Equipment Upgrades at 20 Sites – $262,000

Update of North Dakota Agricultural Land Valuation Model – $50,000

Additional Request

North Dakota Soil Conservation Committee for technical assistance grants to Soil Conservation Districts – $150,000

DETAILS: 2011-2013 Capital Improvements and One-time Need as Ranked by SBARE

N.D. Agricultural Experiment Station

Capital Improvements

Research Greenhouse Complex — Final Phase

$6,991,650 (general funds) (BL3-Portion – $2,502,931 special funds)

The North Dakota Agricultural Experiment Station (NDAES) needs secure greenhouse space to carry out research on crops to meet customer and consumer demands, and to respond to the threat of bioterrorism. In addition, increased number of plant related research programs, and the expansion of these programs due to increased demand for high quality traits, yield, and pest problems has placed great demand on the existing greenhouse facilities on campus.

This request is to complete the construction of the state-of-the-art facility, which, when completed, will feature conventional, or bio-safety level BL1-P (approximately 29,000 sq. ft), biosafety level BL2-P (approximately 17,000 sq. ft), and biosafety level BL3-P (approximately 1600 sq ft.) greenhouses. Advanced levels of automation and environmental control systems are built into the greenhouse research rooms to provide a more controlled environment and provide additional aid to researchers by monitoring the environment within each research room. Each consecutive bio-safety level ensures an increased level of security and precision, and expands the types of research possible.

This research complex also includes head-house facilities which provide researchers with laboratories and other facilities to facilitate efficient use of the greenhouses, along with providing the infrastructure backbone for mechanical, electrical and heating needs of the complex.

The final proposed phase of construction will include the fourth BL1-P greenhouse range pair and the third BL1-P greenhouse range pair, along with extension of the connecting head-house in the BL-2P area, which will interconnect with the BL3-P containment facility and its associated components and infrastructure. Groundbreaking of the first phase took place in late summer of 2008 and is scheduled for completion will be late winter of 2010. Second phase construction is slated to begin spring of 2010 with completion in summer 2011.

The location of the facility is in close proximity to other on-campus laboratory research facilities.

Agronomy Laboratories

$5,275,000

The Carrington Research Extension Center agronomy program is perhaps the largest and most diverse of the out-state REC's. Yet, this program must perform the duties and processes associated with this large program in an old (1962-era) potato warehouse. For example, more than 25,000 individual samples are handled in multiple processing steps within the confines of this antiquated facility. Over the course of the past 30 years, the CREC agronomy staff has self-renovated the interior of this warehouse to create a degree of functionality given the limitations. First and foremost, the current agronomy laboratory does not meet worker safety and protection standards. The current laboratory has limited space for experiment preparation and processing, sample cleaning, dryers, field sample storage. The current facility completely lacks some basic research functionality such as: dust and air exchange capability; isolated chemical handling space; controlled environment for seed storage; plus there is no room for plant pathology experiments. The innovative and proactive research efforts of CREC agronomist and plant pathologist are severely compromised by the limitations and lack of modern capabilities indicative of the present facility. **(CREC facility estimated cost - $2,250,000)**

The current agronomy and Range research programs at the NDSU HREC have grown beyond the ability of our current Agronomy Lab to house them. The current lab is a converted granary with inadequate sample storage space, inadequate drying ovens, and no internet service or the ability to provide a modern office working environment. Additionally, the HREC has inadequate equipment storage space needed to store the Agronomy research program seed drills and combine and the Range research program's equipment. A modern Agronomy and Range Lab of approximately 8,000 square feet is needed to provide technicians and graduate students with office space, technical facilities in line with modern research (internet access, dust free environments to work on computers, and lab areas for handling radio telemetry collars for wildlife and domestic livestock), new drying ovens and sampling processing areas, and storage for both research samples and equipment. **(HREC facility estimated cost - $1,600,000)**

The LREC has an active agronomy research program that includes all aspects of crop production including, but not limited to, soil health, plant pathology, entomology, crop fertility, weed control, variety development, etc. The LREC currently has no dedicated facility to store, process, and perform an array of tests needed to compile research data that is needed by the regions producers to solve crop production problems and questions. A new agronomy lab would allow LREC scientists to conduct this work and in the long run would save resources that are currently expended shipping research materials away for processing and testing. **(LREC facility estimated cost - $1,100,000)**

With the addition of a forage agronomist at the CGREC, the center is in need of a forage lab/storage building. Currently samples collected in the field by the scientist are processed in a corner of an equipment storage building with a dirt floor. The dust from opening the overhead door and moving equipment renders this area very dusty and difficult to keep scales and computers clean. The new building would house the forage drying ovens, computer, scale etc. for sample data processing. It would also house the grinders and equipment to process the forage samples in preparation for nutrient analysis.

The building would be 40X100 feet with half of the building used for the forage lab and the remainder used for sample and equipment storage. We are now forced to keep plot equipment stored outside where the weather takes its toll on the equipment condition. New plot equipment such as self propelled forage harvesters cost upwards of $100,000 and should be maintained in a clean dry storage environment. **(CGREC facility estimated cost - $325,000)**

Seed Conditioning Plants

$8,400,000

The NCREC has identified the need for a new, one story, high side-wall, Foundation grade seed conditioning facility capable of gently handling pulse crops, oil seeds, and other crops is. A portion of the building needs heating to house electronic eye, seed sorting equipment. Explosion proof fixtures, pure-seed conveyors and elevators, dust handling equipment, and a series of seed conditioning machines are included. The present facility, originally built in 1949 and added on in 1982 is too small, inefficient, and is a health and safety problem due to inadequate dust handling. It is not equipped to handle pulse crops and oilseeds without excessive seed damage. Two hundred thousand dollars in deferred maintenance is alleviated if constructed. **(NCREC facility estimated cost - $3,000,000)**

The current seed plant at CREC was constructed in 1963 and is seriously out of date. The current plant is not designed to readily accommodate air exchange and dust control mechanical features to address worker safety concerns. The present building is too small to retro-fit with larger capacity seed conditioning equipment. The CREC must heavily rely upon the use of a mobile mill to condition the majority of the seed products produced and managed by this department. **(CREC facility estimated cost - $3,000,000)**

The current building at WREC used to house the foundation seed conditioning equipment was built in the mid 1950's. The area designated to unload trucks can only accommodate a small single axle truck and does not have sufficient unloading capacity. Grain legs that move the dirty and clean grain are all too small for efficient movement of grain. We are limited to cleaning a maximum of 45 bushels per hour by the current grain leg size. Upgrading grain legs is difficult to near impossible in this building because of space limitations. Equipment for the distribution and conditioning of grain is currently located on five different floor levels in the building, creating potential worker safety issues and problems associated with constant stair climbing. The conditioning plant is cleaned thoroughly at every level between each crop variety that is conditioned in order to insure seed purity for Foundation Seed production. This means that in 2009-2010 the conditioning plant will need to be hand cleaned about 20 times, a task that now takes two people approximately ten hours to complete. Clean down time could be cut by 50-60% in a new one story building. Cleaning capacity could be increased from 35 bushels/hour to 100-125 bushels/hour, if we used the same cleaning equipment (scalper sieve cleaner, indents and gravity) currently being used. New grain legs would

have a capacity of moving 200 bushels of seed/hour and with improved equipment; the plant capacity can be upgraded to 200 bushels/hour for future use if needed. The building would need to be minimally heated with grain bagging capabilities. New conditioning equipment cost should be less than $200,000. Seed conditioning season runs from November through February and sometimes into March. This building would be needed to house a mobile grain cleaning mill also, if that option is chosen since conditioning grain outside in cold weather is very undesirable and in most cases nearly impossible. Mobile mill costs vary, but range from $450,000-$700,000. **(WREC facility estimated cost - $1,400,000)**

The LREC produces an average 15,000 bushels of regionally adapted foundation seed production for use by the regions producers in their cropping enterprise. The current foundation seed facility at the LREC was constructed in 1962 and utilizes the same equipment. It is outdated, inefficient and needs to be modernized to support a foundation seed system demanded by the region's producers. In 2008, the condition of the seed cleaning plant was cited as the number one safety hazard by the NDSU Safety Office on the grounds of the LREC. This can only be corrected with a major renovation. **(LREC facility estimated cost - $1,000,000)**

One-time Need

One-time Deferred Maintenance

The estimated total outstanding deferred maintenance for the Agricultural Experiment Station is $8,406,803, per the most recent master plan. This figure encompasses repairs of facilities for worker safety reasons, ADA compliance, and to improve the overall infrastructure by preventing further deterioration. The amount of $8,406,803 is only a best estimate at this time. A one-time request of $4,203,401 would be 50 percent of the items on the master plan list.

DETAILS: 2011-2013 Capital Improvement and One-time Need as Recommended by SBARE

NDSU Extension Service

Capital Improvement

Learning/Conference Center at Western 4-H Camp, Washburn

$3,800,000
$2,500,000 general fund request
$1,300,000 special fund request

Western North Dakota 4-H Camp on the Missouri River near Washburn, N.D., has been used extensively during summer months for day and overnight youth camps, meetings and Extension staff training since 1967.

Research shows that the 4-H camping program has a positive impact on the social, personal and educational growth of the youth participating, and increases awareness of environmental issues and interest in the outdoors, develops leadership skills and influences career decisions. To enhance and expand this impact, a modern, year-round 4-H Conference Center is needed at the camp. Located on the U.S. Hwy 83 central trade corridor in North Dakota's energy hub, and in proximity of several nationally significant historical attractions, the conference center would appeal to additional user groups as an affordable conference/retreat center for educational, social and business functions. The proposed 24,000 square foot facility would accommodate 70-80 people at one time. Lodging and meal costs are anticipated to track the state per diem reimbursement rates. Special rates for 4-H campers would be established.

One-time Needs

Interactive Video Equipment Upgrades at 20 Sites

$262,000
$262,000 for high definition interactive video cameras, monitors, mounting racks and installation

NDSU Agriculture and University Extension has 35 videoconference sites that are used extensively for educational outreach to the public, credit courses, internal training, meetings, program planning and other purposes. These sites hosted nearly 450 events involving three or more sites in 2009 alone. Another 130 workshops and meetings were delivered using other entities' videoconference sites where we don't have equipment. This does not take into account the numerous point-to-point meetings done by videoconference. NDSU Agriculture and University Extension must upgrade the videoconference equipment at 20 of these sites because the current equipment will no longer be supported by the Polycom company or the North Dakota Interactive Video Network (ND IVN) after September 2010. This upgrade would enable these 20 locations to continue to be viable interactive video meeting sites, ultimately saving the public and the institution travel costs, with the equipment requested consistent with the ND IVN upgrade plan. This request is for 50% of the cost of 10 county units and the full cost of 10 units at RECs and NDSU campus locations. The balance would be covered with local funds.

Update of North Dakota Agricultural Land Valuation Model

$50,000

$50,000 to redevelop land valuation model in current software and rewrite technical and descriptive manuals

The North Dakota Agricultural Land Valuation Model is used each year to estimate the average value of agricultural land, by county, based on productivity value, and the results are provided to the North Dakota State Tax Department each December. The average value for each county serves as the starting point for local valuation of each tract of land, so this effort has a direct impact on all North Dakota land owners. North Dakota Century Code assigns the land valuation duty to the NDSU Department of Agribusiness and Applied Economics. Numerous amendments to the original legislation since the mid 1990s have required changes to the model, rendering it now difficult for someone unfamiliar with the process to use. The existing model is in Lotus 123 format, a program no longer supported by NDSU Information Technology Services. Funding of this request would provide the support needed to convert the program to a supported format (Microsoft Excel); write a technical manual that details the input data, the model output and how to update the model from year to year permitting someone unfamiliar with the model to be able to run an analysis; and write a descriptive manual for general distribution to the public that would describe the data used, sources of data and how each input impacts the resulting values.

Additional Request — North Dakota State Soil Conservation Committee

$150,000

$150,000 for technical assistance grants to Soil Conservation Districts

The Farm Security and Rural Investment Act of 2002 increased the conservation workload in all soil conservation districts. Soil conservation districts are working hard to get landowners signed up, and get plans and designs developed and approved. The planning, design, installation and checkout of conservation practices by participating soil conservation districts have a significant impact on North Dakota's natural resources. Funds from this request would assist soil conservation districts to help landowners reduce soil erosion, improve water quality, and enhance tree plantings, grazing lands and wildlife habitat.

PROPOSED

4-H Conference Center
AT WESTERN NORTH DAKOTA 4-H CAMP

a capital project of the NDSU Extension Service

Why a 4-H Conference Center?

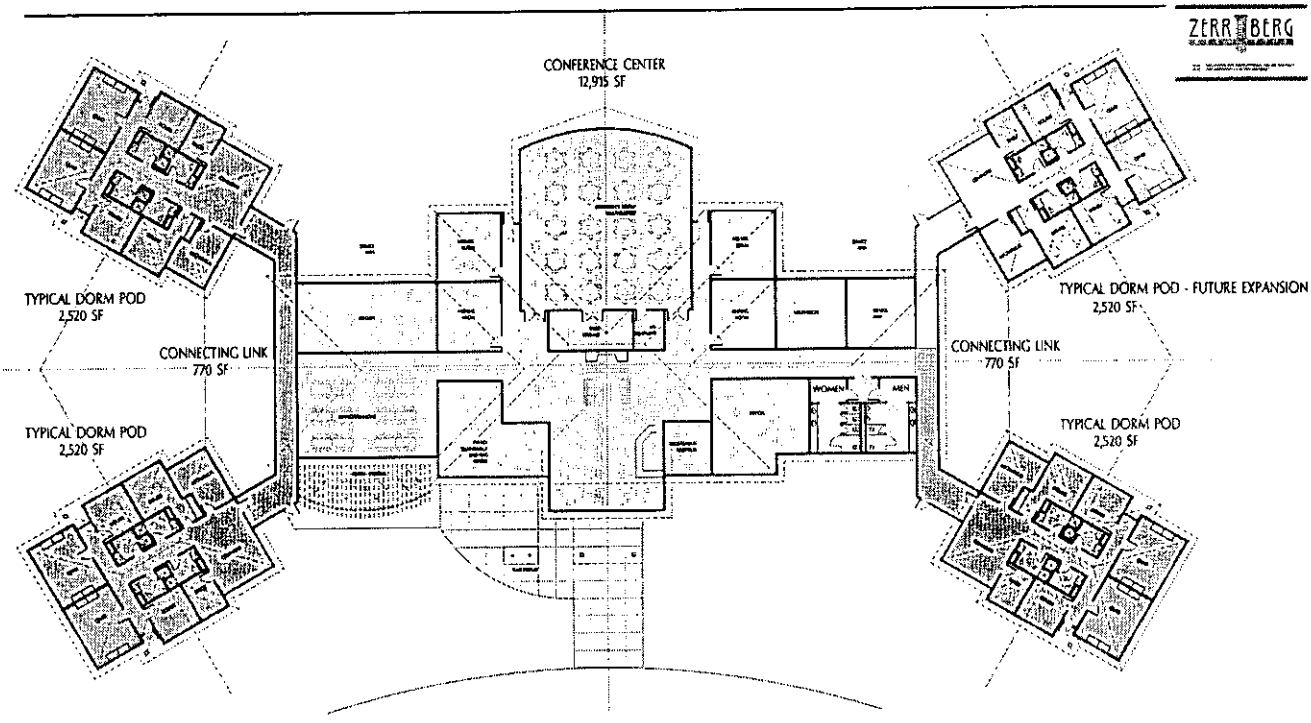
A 4-H Conference Center at the Western 4-H Camp near Washburn, N.D., would provide needed facilities to enhance and expand programs and activities provided at the camp. Located on the U.S. Highway 83 central trade corridor, this center would be built on wooded Missouri River acreage, providing a perfect environment for educational, social and business functions with its expansive views of the river. The proximity of several nationally significant historical sites and attractions, along with North Dakota's energy hub, would enhance the appeal to additional user groups as a conference/retreat center for residents of and visitors to North Dakota on a year-round basis.

What will it cost?

The 4-H Conference Center has been presented and approved as an NDSU Extension Service capital project initiative for the 2011 legislative session by the State Board of Agricultural Research and Education and the State Board of Higher Education at the projected cost of $3.8 million, with $2.5 million coming from state general funds and $1.3 million from special funds.

How might it look?

NDSU
Extension Service


ZERR BERG
CONFERENCE CENTER
12,915 SF
TYPICAL DORM POD
2,520 SF
CONNECTING LINK
770 SF
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TYPICAL DORM POD - FUTURE EXPANSION
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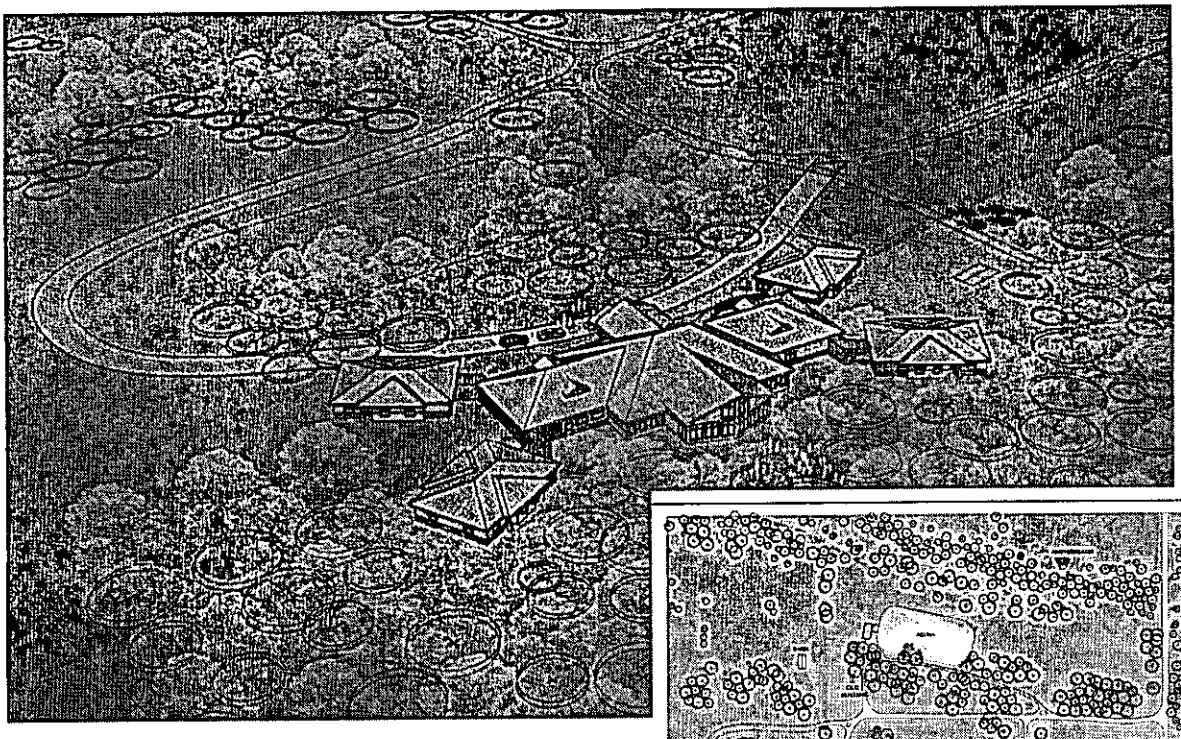
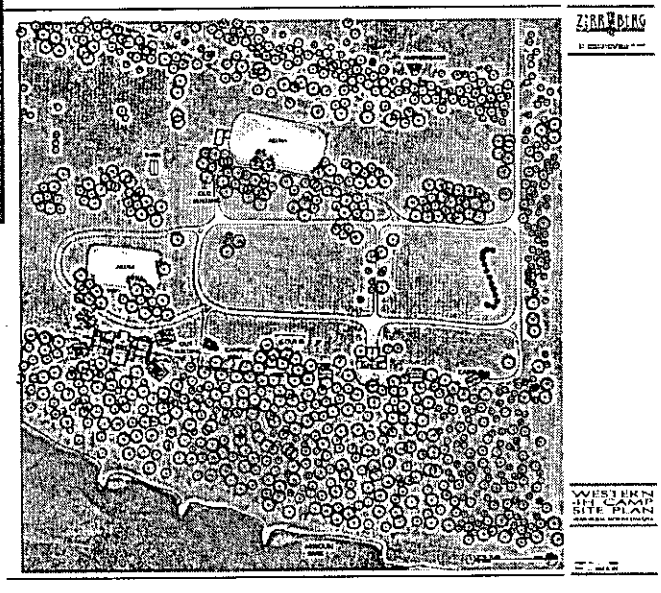



ZERR BERG
WESTERN
SITE PLAN

NDSU Main & Branch Research Centers and Extension Service
Comparison of Prioritized SBARE Initiatives to Executive Recommendation (HB 1020)

		Included in 2011-13 Budget Request	Included in 2011-13 Executive Recommendation
Base Increases:			
	NDSU Main & Branch Research Centers		
1	Greenhouse utilities	$173,622	$173,622
2	Enhancing soil productivity and land management for future ND	1,410,000	1,410,000
3	Infrastructure (equipment, operating, graduate students, and office support staff)	1,880,000	1,880,000
4	Improving the state's economy by enhancing crop development efforts	2,700,000	-
	Improving animal productivity and livestock stewardship for increased profitability in the		
5	ND livestock industry	810,000	-
6	Crop commodity quality/trait and utilization development	1,110,000	-
7	Animal health initiative	1,010,000	-
8	Plant physiologist	290,000	-
9	Plant physiologist	250,000	-
10	Organic/sustainable agriculture systems	300,000	-
	TOTAL	9,933,622	3,463,622
	NDSU Extension Service		
1	Infrastructure: technical support	450,000	450,000
2a	Soil health and land management	690,000	690,000
2b	Livestock stewardship	250,000	250,000
3a	Agents-in-training and summer internship program	500,000	-
3b	Crop protection	440,000	-
4a	Infrastructure: Information technology	150,000	-
4b	Agricultural entrepreneurship and rural business transition	500,000	-
5	Health, wealth and quality of life for ND	500,000	-
6	Identity-preserved and specialty agriculture	440,000	-
7	Infrastructure: operating	80,000	-
	Gearing up for Kindergarten		830,000
		4,000,000	2,220,000
	State Soil Conservation Committee (Included in Extension Service)	150,000	50,000
Capital and One-time Funding Increases:			
	NDSU Main & Branch Research Centers		
1	Research Greenhouse Complex ($6,991,650 Gen. Fund, $2,502,931 Spec. Funds)	9,494,581	9,494,581
2	Agronomy Laboratories	5,275,000	-
3	Seed Conditioning Plants	8,400,000	-
	Deferred maintenance (Main Station and RECs)	$4,203,401	-
	Extension Service		
	4-H Conference Center ($2,500,000 Gen. Fund, $1,300,000 Spec. Funds)	3,800,000	-
	IVN equipment upgrades (at 20 sites)	262,000	
	Update of ND agricultural land valuation model	50,000	-

#N/A

NDSU Agriculture and University Extension
North Dakota Agricultural Experiment Station and NDSU Extension Service

General Fund —

Extension Service, Main and Branch Research Centers and Northern Crops Institute

Reconciliation of 2009-11 Original Appropriation to 2011-13 Executive Recommendation (HB 1020)

	(1) Extension Service	(2) Main Research Center	(3) Branch Research Centers	(4) NCI	(5) Total
2009-11 Original General Fund Appropriation	**$22,000,412**	**$60,217,151**	**$12,367,190**	**$1,439,221**	**$96,023,974**
2007-09 GF Carryover - Greenhouse		5,759,988			5,759,988
2009-11 Adjusted GF Appropriation	**22,000,412**	**65,977,139**	**12,367,190**	**1,439,221**	**101,783,962**
Less 2007-09 GF Carryover		(5,759,988)			(5,759,988)
Less 2009-11 One-time Appropriations		(700,000)			(700,000)
Less 2009-11 Capital Projects		(17,000,000)			(17,000,000)
2009-11 Adjusted Appropriation, Less Base Adjustments	**22,000,412**	**42,517,151**	**12,367,190**	**1,439,221**	**78,323,974**
Executive Recommendation Base Increases (Decreases):					
Cost to continue FY2011 salary increases	508,356	876,714	202,933	28,082	1,616,085
Decrease in 2011-13 Capital Bond Payments		(99)	(34)		(133)
Retirement rate correction - Pay plan	(693,796)	(1,471,495)	(293,692)	(60,075)	(2,519,058)
Compensation package (3% per year) and health insurance increases	1,530,672	2,586,453	618,811	85,992	4,821,928
Soil Conservation Increase	50,000				50,000
Gearing Up for Kindergarten	830,000				830,000
NCI and SBARE initiatives[1]	1,390,000	2,423,622	1,040,000	199,362	5,052,984
2011-13 Recommended Base General Fund Request	**3,615,232**	**4,415,195**	**1,568,018**	**253,361**	**9,851,806**
Executive Recommendation One-time Increases:					
2011-13 Capital Projects		6,991,650			6,991,650
2011-13 Recommended One-time Increases:		6,991,650			6,991,650
2009-11 Total Executive Recommendation - General Fund	**25,615,644**	**53,923,996**	**13,935,208**	**1,692,582**	**95,167,430**
Increase (Decrease) From 2009-11 Adjusted Appropriation, Less Base Adjustments	**$3,615,232**	**$11,406,845**	**$1,568,018**	**$253,361**	**$16,843,456**

[1] The following SBARE initiatives and NCI increases were funded (all base funding increases):

Extension - $450,000 Technician salary support; $690,000 Soil health & land management (3 FTE); $250,000 Livestock stewardship education (1 FTE) [Total requested for all Extension initiatives = $4 million]

Main Research - $173,622 Greenhouse utilities; $470,000 Soil productivity & land management (3 FTE); $100,000 Increased equipment; $410,000 Increase scientist operating funds to $10,000/scientist; $720,000 for 10 graduate assistants; $550,000 Additional office support (5 FTE) [Total requested for all Main REC = $6,848,622]

Branch REC's - $940,000 Soil productivity & land management (6 FTE); $100,000 Increase revolving equipment fund [Total requested for Branch REC's = $3,085,000]

NCI - $199,362 Funding source change for existing feed production center manager [Total requested = $244,670]

Other Funds —

Extension Service, Main and Branch Research Centers, Northern Crops Institute and Agronomy Seed Farm

Reconciliation of 2009-11 Original Appropriation to 2011-13 Executive Recommendation (HB 1020)

	(1) Extension Service	(2) Main Research Center	(3) Branch Research Centers	(4) NCI	(5) Agronomy Seed Farm	(6) Total
2009-11 Original Other Fund Appropriation	**$25,928,877**	**$45,713,267**	**$15,191,816**	**$1,598,265**	**$1,275,238**	**$89,707,463**
2007-09 capital assets carryover		2,911,096				2,911,096
2009-11 Adjusted OF Appropriation	**25,928,877**	**48,624,363**	**15,191,816**	**1,598,265**	**1,275,238**	**92,618,559**
Base Adjustments:						
Less 2007-09 OF Carryover		(2,911,096)				(2,911,096)
Less 2009-11 One-time Funding			(925,000)			(925,000)
Less 2009-11 Capital Projects		(700,000)	(350,000)			(1,050,000)
2009-11 Adjusted Appropriation, Less Base Adjustments	**25,928,877**	**45,013,267**	**13,916,816**	**1,598,265**	**1,275,238**	**87,732,463**
Executive Recommendation Base Increases (Decreases):						
Cost to continue FY2011 salary increases	311,820	325,877	60,742	11,499	9,791	719,729
Retirement rate correction - Pay plan	(720,652)	(644,800)	(61,739)	(5,458)	(11,328)	(1,443,977)
Compensation package (3% per year) and health insurance increases	740,067	635,648	172,504	14,052	26,615	1,588,886
2011-13 Capital projects		2,502,931				2,502,931
Other changes in estimated income	(3,131,302)	(3,859,348)	789,258	36,367	134,852	(6,030,173)
Total requested increases (decreases)	**(2,800,067)**	**(1,039,692)**	**960,765**	**56,460**	**159,930**	**(2,662,604)**
2011-13 Total Executive Recommendation - Other Funds	**$23,128,810**	**$43,973,575**	**$14,877,581**	**$1,654,725**	**$1,435,168**	**$85,069,859**

NDSU Agriculture and University Extension

North Dakota Agricultural Experiment Station and NDSU Extension Service

Branch Research Centers

Reconciliation of 2009-11 Original Appropriation to 2011-13 Executive Recommendation (HB 1020)

	(1) Dickinson	(2) Central Grasslands	(3) Hettinger	(4) Langdon	(5) North Central	(6) Williston	(7) Carrington	(8) Total
General Fund:								
2009-11 Original General Fund Appropriation	$2,353,771	$1,486,428	$1,349,649	$1,217,179	$1,486,111	$1,922,183	$2,551,869	$12,367,190
Reallocation of Revolving Equipment Pool for 2011-13	(100,000)	100,000	(100,000)	100,000	100,000		(100,000)	–
Executive Recommendation Increases (Decreases):								
Cost to continue FY2011 salary increases	44,392	20,802	21,091	21,158	25,672	27,660	42,158	202,933
Decrease in 2011-13 Capital Bond Payments		(13)			(21)			(34)
Retirement rate correction - Pay plan	(58,153)	(36,486)	(36,682)	(24,441)	(37,127)	(30,490)	(70,313)	(293,692)
Compensation package (3% per year) and health insurance increases	118,749	74,058	74,960	56,668	70,620	83,804	139,952	618,811
SBARE Initiatives		145,000	350,000	25,000	25,000	145,000	350,000	1,040,000
2011-13 Recommended Base General Fund Increases	104,988	203,361	409,369	78,385	84,144	225,974	461,797	1,568,018
2011-13 Total Executive Recommendation - General Fund	$2,358,759	$1,789,789	$1,659,018	$1,395,564	$1,670,255	$2,148,157	$2,913,666	$13,935,208
Other Funds:								
2009-11 Original Other Fund Appropriation	$3,933,809	$1,074,174	$1,645,506	$874,393	$2,487,841	$1,000,000	$4,176,093	$15,191,816
2009-11 One-time funding	(925,000)							(925,000)
2009-11 Capital projects	(350,000)							(350,000)
2009-11 Adjusted Appropriation-OF	2,658,809	1,074,174	1,645,506	874,393	2,487,841	1,000,000	4,176,093	13,916,816
Executive Recommendation Increases (Decreases):								
Cost to continue FY2011 salary increases	14,167	1,207	9,438	6,932	11,592		17,406	60,742
Retirement rate correction - Pay plan	(23,512)	(3,735)	(7,632)	(2,005)	(7,559)	(4,191)	(13,105)	(61,739)
Compensation package (3% per year) and health insurance increases	44,506	5,618	26,283	10,854	29,286	6,123	49,834	172,504
Other changes in estimated income	535,833	(1,206)	40,562	93,069	88,406	50,000	(17,406)	789,258
2011-13 Recommended Base Other Fund Increases	570,994	1,884	68,651	108,850	121,725	51,932	36,729	960,765
2011-13 Total Executive Recommendation - Other Funds	$3,229,803	$1,076,058	$1,714,157	$983,243	$2,609,566	$1,051,932	$4,212,822	$14,877,581

NORTH DAKOTA UNIVERSITY SYSTEM
ANALYSIS OF 2011-13 EXECUTIVE RECOMMENDATION BY LINE ITEM (HB 1020)
(NORTHERN CROPS INSTITUTE
EXTENSION SERVICE, RESEARCH STATIONS & AGRONOMY SEED FARM)

	2011-13 Exec Recommendation	2009-11 Adj Appropriation	Incr (Decr) over 2009-11 $$ change	Incr (Decr) over 2009-11 %% change
Northern Crops Institute				
Operations	3,347,307	3,037,486	309,821	10.2%
Total all funds	3,347,307	3,037,486	309,821	10.2%
Less estimated income	1,654,725	1,598,265	56,460	3.5%
Total general fund appropriation	1,692,582	1,439,221	253,361	17.6%
Extension Service				
Operations	47,856,654	47,091,489	765,165	1.6%
Soil Conservation Committee	887,800	837,800	50,000	6.0%
Total all funds	48,744,454	47,929,289	815,165	1.7%
Less estimated income	23,128,810	25,928,877	(2,800,067)	-10.8%
Total general fund appropriation	25,615,644	22,000,412	3,615,232	16.4%
Main Research Station				
Operations	87,981,300	87,358,629	622,671	0.7%
Deferred Maintenance	0	450,000	(450,000)	-100.0%
Capital Bond Payments	421,690	421,789	(99)	0.0%
Subtotal all funds	88,402,990	88,230,418	172,572	0.2%
Less estimated income	41,470,644	45,013,267	(3,542,623)	-7.9%
Subtotal general fund appropriation	46,932,346	43,217,151	3,715,195	8.6%
Major Capital Projects	9,494,581	17,700,000	(8,205,419)	-46.4%
2007-09 Capital Assets Carryover	0	8,671,084	(8,671,084)	-100.0%
Subtotal all funds	9,494,581	26,371,084	(16,876,503)	-64.0%
Less estimated income	2,502,931	3,611,096	(1,108,165)	-30.7%
Subtotal general fund appropriation	6,991,650	22,759,988	(15,768,338)	-69.3%
Total:				
Total all funds	97,897,571	114,601,502	(16,703,931)	-14.6%
Less estimated income	43,973,575	48,624,363	(4,650,788)	-9.6%
Total general fund appropriation	53,923,996	65,977,139	(12,053,143)	-18.3%

NORTH DAKOTA UNIVERSITY SYSTEM
ANALYSIS OF 2011-13 EXECUTIVE RECOMMENDATION BY LINE ITEM (HB 1020)
(NORTHERN CROPS INSTITUTE
EXTENSION SERVICE, RESEARCH STATIONS & AGRONOMY SEED FARM)

	2011-13 Exec Recommendation	2009-11 Adj Appropriation	Incr (Decr) over 2009-11 $$ change	Incr (Decr) over 2009-11 %% change
Branch Research Centers				
Dickinson Research Center	5,588,562	5,937,580	(349,018)	-5.9%
Central Grasslands Research Center	2,808,952	2,503,694	305,258	12.2%
Hettinger Research Center	3,373,175	2,995,155	378,020	12.6%
Langdon Research Center	2,378,807	2,091,572	287,235	13.7%
North Central Research Center	4,187,116	3,881,226	305,890	7.9%
Williston Research Center	3,200,089	2,922,183	277,906	9.5%
Carrington Research Center	7,126,488	6,727,962	398,526	5.9%
Capital Bond Payments	149,600	149,634	(34)	0.0%
Subtotal all funds	28,812,789	27,209,006	1,603,783	5.9%
Less estimated income	14,877,581	14,841,816	35,765	0.2%
Subtotal general fund appropriation	13,935,208	12,367,190	1,568,018	12.7%
Major Capital Projects	0	350,000	(350,000)	-100.0%
2005-07 Capital Assets Carryover	0	0	0	#DIV/0!
Subtotal all funds	0	350,000	(350,000)	-100.0%
Less estimated income	0	350,000	(350,000)	-100.0%
Subtotal general fund appropriation	0	0	0	#DIV/0!
Total:				
Total all funds	28,812,789	27,559,006	1,253,783	4.5%
Less estimated income	14,877,581	15,191,816	(314,235)	-2.1%
Total general fund appropriation	13,935,208	12,367,190	1,568,018	12.7%
Agronomy Seed Farm:				
Operations	1,435,168	1,275,238	159,930	12.5%
Subtotal all funds	1,435,168	1,275,238	159,930	12.5%
Less estimated income	1,435,168	1,275,238	159,930	12.5%
Subtotal general fund appropriation	0	0	0	0.0%

NORTH DAKOTA UNIVERSITY SYSTEM
ANALYSIS OF 2011-13 EXECUTIVE RECOMMENDATION BY LINE ITEM (HB 1020)
(NORTHERN CROPS INSTITUTE
EXTENSION SERVICE, RESEARCH STATIONS & AGRONOMY SEED FARM)

TOTAL-ALL:	2011-13 Exec Recommendation	2009-11 Adj Appropriation	Incr (Decr) over 2009-11 $$ change	Incr (Decr) over 2009-11 %% change
Operating, Extraordinary Repairs, Deferred Maintenance & Capital Bond Payments (1):				
General Fund:				
Operating	$ 86,264,025	$ 76,662,086	$ 9,601,939	12.5%
Extraordinary Repairs - Main Research Center	1,340,465	1,340,465	-	0.0%
Deferred Maintenance-Main Research Center	-	450,000	(450,000)	-100.0%
Capital Bond Payments-Main, Central Grasslands and North Central REC	571,290	571,423	(133)	0.0%
Total General Fund	88,175,780	79,023,974	9,151,806	11.6%
Total Special Funds	82,566,928	88,657,463	(6,090,535)	-6.9%
Total All Funds	170,742,708	167,681,437	3,061,271	1.8%
Major Capital Projects & Carryover:				
Total General Fund	6,991,650	22,759,988	(15,768,338)	-69.3%
Total Special Funds	2,502,931	3,961,096	(1,458,165)	-36.8%
Total All Funds	9,494,581	26,721,084	(17,226,503)	-64.5%
TOTAL-ALL:				
Total General Fund	**95,167,430**	**101,783,962**	**(6,616,532)**	**-6.5%**
Total Special Funds	**85,069,859**	**92,618,559**	**(7,548,700)**	**-8.2%**
Total All Funds	**$ 180,237,289**	**$ 194,402,521**	**$ (14,165,232)**	**-7.3%**

1/ HB 1020 includes single line-item budgets for the NDSU Main & Branch Research Stations and Agronomy Seed Farm, although major capital projects, extraordinary repairs and capital bond payments are listed separately for this analysis.

Sixty-second
Legislative Assembly
of North Dakota

HOUSE BILL NO. 1020

Introduced by

Appropriations Committee

(At the request of the Governor)

A BILL for an Act to provide an appropriation for defraying the expenses of the extension service, northern crops institute, upper great plains transportation institute, main research center, branch research centers, and agronomy seed farm; to provide for transfers; to provide an exemption; and to declare an emergency.

BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF NORTH DAKOTA:

SECTION 1. APPROPRIATION. The funds provided in this section, or so much of the funds as may be necessary, are appropriated out of any moneys in the general fund in the state treasury, not otherwise appropriated, and from special funds derived from federal funds and other income, to the North Dakota state university extension service, the northern crops institute, the upper great plains transportation institute, the main research center, branch research centers, and agronomy seed farm for the purpose of defraying the expenses of the North Dakota state university extension service, the northern crops institute, the upper great plains transportation institute, the main research center, branch research centers, and agronomy seed farm, for the biennium beginning July 1, 2011, and ending June 30, 2013, as follows:

Subdivision 1.

NORTH DAKOTA STATE UNIVERSITY EXTENSION SERVICE

	Base Level	Adjustments or Enhancements	Appropriation
Extension service	$47,091,489	$765,165	$47,856,654
Soil conservation committee	837,800	50,000	887,800
Total all funds	$47,929,289	$815,165	$48,744,454
Less estimated income	25,928,877	(2,800,067)	23,128,810
Total general fund	$22,000,412	$3,615,232	$25,615,644

Full-time equivalent positions	255.75	0.00	255.75

Subdivision 2.

NORTHERN CROPS INSTITUTE

	Base Level	Adjustments or Enhancements	Appropriation
Total all funds	$3,037,486	$309,821	$3,347,307
Less estimated income	1,598,265	56,460	1,654,725
Total general fund	$1,439,221	$253,361	$1,692,582
Full-time equivalent positions	11.00	0.00	11.00

Subdivision 3.

UPPER GREAT PLAINS TRANSPORTATION INSTITUTE

	Base Level	Adjustments or Enhancements	Appropriation
Total all funds	$23,326,992	$742,969	$24,069,961
Less estimated income	21,737,199	413,134	22,150,333
Total general fund	$1,589,793	$329,835	$1,919,628
Full-time equivalent positions	52.30	0.00	52.30

Subdivision 4.

MAIN RESEARCH CENTER

	Base Level	Adjustments or Enhancements	Appropriation
Main research center	$87,530,418	$10,367,153	$97,897,571
Deferred maintenance	0	0	0
Grape and wine program committee	0	0	0
Federal fiscal stimulus 2009	0	0	0
Total all funds	$87,530,418	$10,367,153	$97,897,571
Less estimated income	45,013,267	(1,039,692)	43,973,575
Total general fund	$42,517,151	$11,406,845	$53,923,996
Full-time equivalent positions	329.26	0.00	329.26

Subdivision 5.

RESEARCH CENTERS

	Base Level	Adjustments or Enhancements	Appropriation
Dickinson research center	$5,012,580	$575,982	$5,588,562
Central grasslands research center	2,560,602	305,245	2,865,847
Hettinger research center	2,995,155	378,020	3,373,175
Langdon research center	2,091,572	287,235	2,378,807
North central research center	3,973,952	305,869	4,279,821
Williston research center	2,922,183	277,906	3,200,089
Carrington research center	6,727,962	398,526	7,126,488
Total all funds	$26,284,006	$2,528,783	$28,812,789
Less estimated income	13,916,816	960,765	14,877,581
Total general fund	$12,367,190	$1,568,018	$13,935,208
Full-time equivalent positions	95.49	0.00	95.49

Subdivision 6.

AGRONOMY SEED FARM

	Base Level	Adjustments or Enhancements	Appropriation
Agronomy seed farm	$1,275,238	$159,930	$1,435,168
Total special funds	$1,275,238	$159,930	$1,435,168
Full-time equivalent positions	3.00	0.00	3.00

Subdivision 7.

BILL TOTAL

	Base Level	Adjustments or Enhancements	Appropriation
Grand total general fund	$79,913,767	$17,173,291	$97,087,058
Grand total special funds	109,469,662	(2,249,470)	107,220,192
Grand total all funds	$189,383,429	$14,923,821	$204,307,250

SECTION 2. ONE-TIME FUNDING - EFFECT ON BASE BUDGET - REPORT TO SIXTY-THIRD LEGISLATIVE ASSEMBLY. The following amounts reflect the one-time funding items approved by the sixty-first legislative assembly for the 2009-11 biennium and the 2011-13 one-time funding items included in the appropriation in section 1 of this Act:

One-Time Funding Description	2009-11	2011-13
Main research center greenhouse project	$11,450,400	$9,494,581
Deferred maintenance pool	450,000	0
Operating pool	925,000	0
Dickinson parking lot and landscaping capital project	350,000	0
Upper great plains transportation institute center for transportation study capital project	3,000,000	0
Beef research facility	2,612,400	0
Grape and wine program committee	250,000	0
Federal fiscal stimulus 2009	700,000	0
North central, Williston, Langdon, and Dickinson renovations/additions	2,937,200	0
Total all funds	$22,675,000	$9,494,581
Total other funds	4,975,000	2,502,931
Total general fund	$17,700,000	$6,991,650

The 2011-13 one-time funding amounts are not a part of the entity's base budget for the 2013-15 biennium. The main research center shall report to the appropriations committees of the sixty-third legislative assembly on the use of this one-time funding for the biennium beginning July 1, 2011, and ending June 30, 2013.

SECTION 3. ADDITIONAL INCOME - APPROPRIATION. In addition to the amount included in the grand total special funds appropriation line item in section 1 of this Act, any other income, including funds from federal acts, private grants, gifts, and donations, or from other sources received by the North Dakota state university extension service, the northern crops institute, the upper great plains transportation institute, the main research center, branch research centers, and agronomy seed farm, except as otherwise provided by law, is appropriated for the purpose designated in the act, grant, gift, or donation, for the biennium beginning July 1, 2011, and ending June 30, 2013.

SECTION 4. TRANSFER AUTHORITY. Upon approval of the state board of agricultural research and education and appropriate branch research center directors, the director of the main research center may transfer appropriation authority within subdivisions 1, 2, 4, and 5 of

section 1 of this Act. Any amounts transferred must be reported to the director of the office of management and budget.

SECTION 5. FULL-TIME EQUIVALENT POSITION ADJUSTMENTS. The board of higher education may adjust or increase full-time equivalent positions as needed for the entities in section 1 of this Act, subject to availability of funds. The board shall report any adjustments to the office of management and budget prior to the submission of the 2013-15 budget request.

SECTION 6. UNEXPENDED GENERAL FUND - EXCESS INCOME. Any unexpended general fund appropriation authority to and any excess income received by entities listed in section 1 of this Act are not subject to the provisions of section 54-44.1-11, and any unexpended funds from these appropriations or revenues are available and may be expended by those entities, during the biennium beginning July 1, 2013, and ending June 30, 2015.

SECTION 7. EXEMPTION. The amounts appropriated for the research greenhouse complex project, as contained in subdivision 4, section 3, of chapter 48 of the 2005 Session Laws, and the branch center renovations and research greenhouse complex projects, as contained in subdivision 4, section 1, of chapter 48 of the 2009 Session Laws, are not subject to the provisions of section 54-44.1-11, and any unexpended funds from these appropriations or related revenues are available and may be expended during the biennium beginning July 1, 2011, and ending June 30, 2013.

SECTION 8. EMERGENCY. The appropriation for capital projects of $6,991,650 from the general fund and $2,502,931 from special funds in subdivision 4 of section 1 of this Act is declared to be an emergency measure.

North Dakota State University does not discriminate on the basis of age, color, disability, gender identity, marital status, national origin, public assistance status, sex, sexual orientation, status as a U.S. veteran, race or religion. Direct inquiries to the Vice President for Equity, Diversity and Global Outreach, 205 Old Main, (701) 231-7708. This publication will be made available in alternative formats for people with disabilities upon request, (701) 231-7881.

WILLISTON RESEARCH EXTENSION CENTER

Organizational Chart - Funding Sources

Director 0.5 FTE
Jerald Bergman

Administrative Assistant
Rowena Nelson

Agronomy Research

Assistant Director/Agronomist
Scientist / Faculty
Neil Riveland

Soil Scientist
Scientist / Faculty
James Staricka

Research Specialist
Horticulture 0.75 FTE
Admin Assist 0.25 FTE
Lorna Bradbury

Research Specialist
Sara Brogger

Research Specialist
Gordy Bradbury

Seasonal/Temporary Employees

Irrigation Research

Irrigation Agronomist
Scientist / Faculty
Tyler Tjelde

Research Specialist

Research Specialist 0.75 FTE
Cameron Wahlstrom

Ag Technician
Katie Stromme

Custodian 0.2 FTE

Seedstocks Program

Research Specialist
Sanford Qvale

Seedstocks Technician
Kyle Dragseth

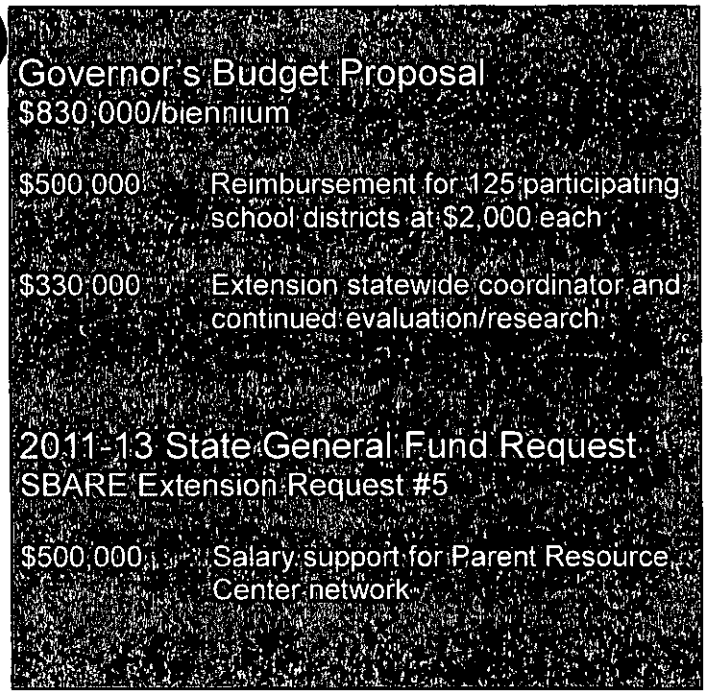
Extension Specialist

Ag Diversification
Value-Added
Chet Hill

State Funded Position

Sales/Grant Funded Position

HB 1020
Handout #3
1/25/11



Documented Program Impacts

Participants who completed the program were compared to a control group of families that did not complete the program. Results indicated that:

- Eighty-five percent said it was very or extremely useful to them.
- Parents and children who participated in the program showed significant increases in 12 of 13 measures of parenting and child school readiness compared with nonparticipants.
- Social skill development was three times higher and emotional skill development was two times higher in children who participated than those who did not.
- Familiarity with numbers was four times higher and familiarity with the alphabet was 2.5 times higher for children who participated, compared with those who did not.

How will program implementation be accomplished with the current level of Parent Resource Center (PRC) staffing?

- PRC staff currently deliver and support programs funded by specific grants/goals. Without additional funding, they will not be able to support implementation of the Gearing Up program in all areas because they are restricted to supporting programs that pay their salaries.
- Current Gearing Up staff funding is based on a federal grant (NDPIRC) that has been in place for five of the eight regions and has existed for the past four years. Funding ends June 2011. Without additional funding, the PRC staff will not be able to provide support for statewide implementation of the Gearing Up program.
- NDSU Extension would offer two statewide trainings and school staff will travel to Fargo and Bismarck for program instruction.
- Any additional support needed at the local school district level will be available from the state coordinator via phone/e-mail.
- This model is not reflective of the local school district support provided during the past four years. Schools have had onsite support from PRC staff to implement the program, and to train local parent educators and school personnel as needed.

How will program implementation be accomplished if additional parenting funds are provided during the legislative session?

- Core funding will be in place to provide for all eight regions. A PRC contact will provide support to all school districts interested in the Gearing Up program.
- Regional PRC staff will be available to go to participating schools and support full implementation of the program in addition to the statewide training offered.
- Regional PRC staff will be available to support training for parent educators in each region.

gearing up for Kindergarten

Vision: *To assure the success of each child entering school by providing education and support needed for North Dakota four year olds and their parents.*

Transition to school and changing expectations for kindergartners today point out the importance of preparing to enter kindergarten. A national study on the science of early education (National Research Council and Institute of Medicine, 2000) concluded that "striking disparities exist in what children know and can do well before they enter kindergarten." Most significant is that children need to learn to read by 3rd grade because after that, they must read to learn.

Model programs with the most significant outcomes for students involve parents. A parent-focused and developmentally appropriate program is key and the Gearing Up for Kindergarten program meets these criteria.

- Gearing Up for Kindergarten is a school readiness and parent involvement opportunity for parents and their four-year-old child who will be entering kindergarten the following year.
- The objectives of the program target school readiness for children, parent education, early academic awareness and intervention as needed, parent involvement and building home-school-community partnerships.
- Families experience an intensive educational series (10-16 weeks) that combines learning activities for the child with parent education for adults.
- Early education topics include math, science exploration, motor development, sensory development and reading/literacy.
- Parent education topics include brain development, parenting styles, raising a reader, guidance and discipline, learning styles, temperament, safety and parent role in school success.

What is School Readiness?

- Until recently, the phrase was used in connection with a child's preparedness to meet the demands of a first grade classroom. With the contemporary push-down of curriculum, readiness is now meant to examine a child's preparedness to meet the demands of kindergarten.
- To some, this means an entirely academic effort, such as knowing numbers and letters. However, the skills a child needs to succeed in kindergarten also relate to working cooperatively with other children, following instructions and being able to communicate. Maturation plays a role in the attainment of school skills, but the child's experiences are the most significant contributor to school readiness.
- School readiness includes physical, social and emotional components. Parent involvement is strongly related to school readiness and success. A child's first teacher is the parent. Families, schools and communities need to work together to be ready for the child, as well as have the child ready for school.

Why School Readiness?

- Transition to school is a critical developmental stage for students and a peak learning phase for parents. The achievement gap originates in the early education years.
- There are four measures most significant in identifying the achievement gap: 1) alphabet letter recognition, 2) letter sound recognition, 3) phonemic awareness and 4) ability to print their name. Familiarity with numbers and alphabet were significantly improved among children in the Gearing Up for Kindergarten program.
- Studies estimate that 32% of kindergartners have some problems entering school, while another 16% have difficult entries to school, making a total of 48% of kindergarten students at risk of having academic problems (3,624 of 7,500 North Dakota kindergarten students).
- Remedial costs average $3,500 per year/ student.
- North Dakota is one of 10 states listed as spending $0 on pre-K/early education.
- Sixty-five percent of North Dakota fourth graders scored below the national proficient reading level in 2009. Research shows early education can improve this number.

NDLA, H APP EE

From: Sandness, Sheila M.
Sent: Monday, January 17, 2011 2:12 PM
To: NDLA, H APP EE
Cc: Bollinger, Bruce A.
Subject: Budget hearing schedule

Hi Shirley,

Mr. Bruce Bollinger, Vice President for Finance and Administration, North Dakota State University, would like information regarding the budget hearings for the North Dakota Forest Service (House Bill No. 1003) and the Upper Great Plains Transportation Institute (House Bill No. 1020). Could you please respond regarding the times scheduled for these institutions. Mr. Bollinger's email is provided in the cc: of this email.

Thank you,

Sheila M. Sandness
Fiscal Analyst
North Dakota Legislative Council
600 E. Boulevard Avenue
Bismarck, ND 58505
701.328.4239
smsandness@nd.gov

Branch Station Budgeted Funding
Per Annual Budget Book

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Dickinson					
General Fund	874,820	975,613	1,025,323	1,201,770	1,152,001
Income/Grant/Other	1,895,387	2,043,447	2,056,561	1,773,986	1,809,823
	2,770,207	3,019,060	3,081,884	2,975,756	2,961,824
General Fund %	31.6%	32.3%	33.3%	40.4%	38.9%
Central Grasslands					
General Fund	463,671	638,254	556,597	759,684	726,744
Income/Grant/Other	554,381	539,986	541,214	535,435	538,739
	1,018,052	1,178,240	1,097,811	1,295,119	1,265,483
General Fund %	45.5%	54.2%	50.7%	58.7%	57.4%
Hettinger					
General Fund	484,431	658,271	578,063	713,061	636,588
Income/Grant/Other	439,685	603,734	612,231	816,030	829,476
	924,116	1,262,005	1,190,294	1,529,091	1,466,064
General Fund %	52.4%	52.2%	48.6%	46.6%	43.4%
Langdon					
General Fund	462,848	643,750	567,251	596,464	620,715
Income/Grant/Other	223,108	243,541	251,761	410,368	464,025
	685,956	887,291	819,012	1,006,832	1,084,740
General Fund %	67.5%	72.6%	69.3%	59.2%	57.2%
North Central					
General Fund	442,617	719,855	648,311	774,901	711,210
Income/Grant/Other	698,163	877,039	889,818	1,238,350	1,249,491
	1,140,780	1,596,894	1,538,129	2,013,251	1,960,701
General Fund %	38.8%	45.1%	42.1%	38.5%	36.3%
Williston					
General Fund	592,256	788,342	813,304	996,246	925,937
Income/Grant/Other	515,424	780,806	760,628	498,247	501,753
	1,107,680	1,569,148	1,573,932	1,494,493	1,427,690
General Fund %	53.5%	50.2%	51.7%	66.7%	64.9%
Carrington					
General Fund	858,948	1,003,818	1,049,439	1,302,024	1,249,846
Income/Grant/Other	1,251,818	1,765,634	1,778,805	2,067,833	2,098,810
	2,110,766	2,769,452	2,828,244	3,369,857	3,348,656
General Fund %	40.7%	36.2%	37.1%	38.6%	37.3%
Total					
General Fund	4,179,591	5,427,903	5,238,288	6,344,150	6,023,041
Income/Grant/Other	5,577,966	6,854,187	6,891,018	7,340,249	7,492,117
	9,757,557	12,282,090	12,129,306	13,684,399	13,515,158
General Fund %	42.8%	44.2%	43.2%	46.4%	44.6%

Chamberlin, Sara E.

From: Ruhland, David [David.Ruhland@ndsu.edu]
Sent: Tuesday, February 01, 2011 11:42 AM
To: Chamberlin, Sara E.
Cc: Coston, Donald; Grafton, Kenneth; Dolan, Tammy R.
Subject: HB 1020 Equipment Storage Request
Attachments: image001.jpg; REC Equipment Storage.xlsx

Hi Sara,

Attached is a response to the request from the Committee for Branch Research Center Equipment storage. The schedule shows actual cost dollar values for equipment that is stored inside and outside.

Please give me a call if you have any questions.

Thanks,

Dave

David Ruhland
Director, Ag Budget Office
701-231-6408
david.ruhland@ndsu.edu

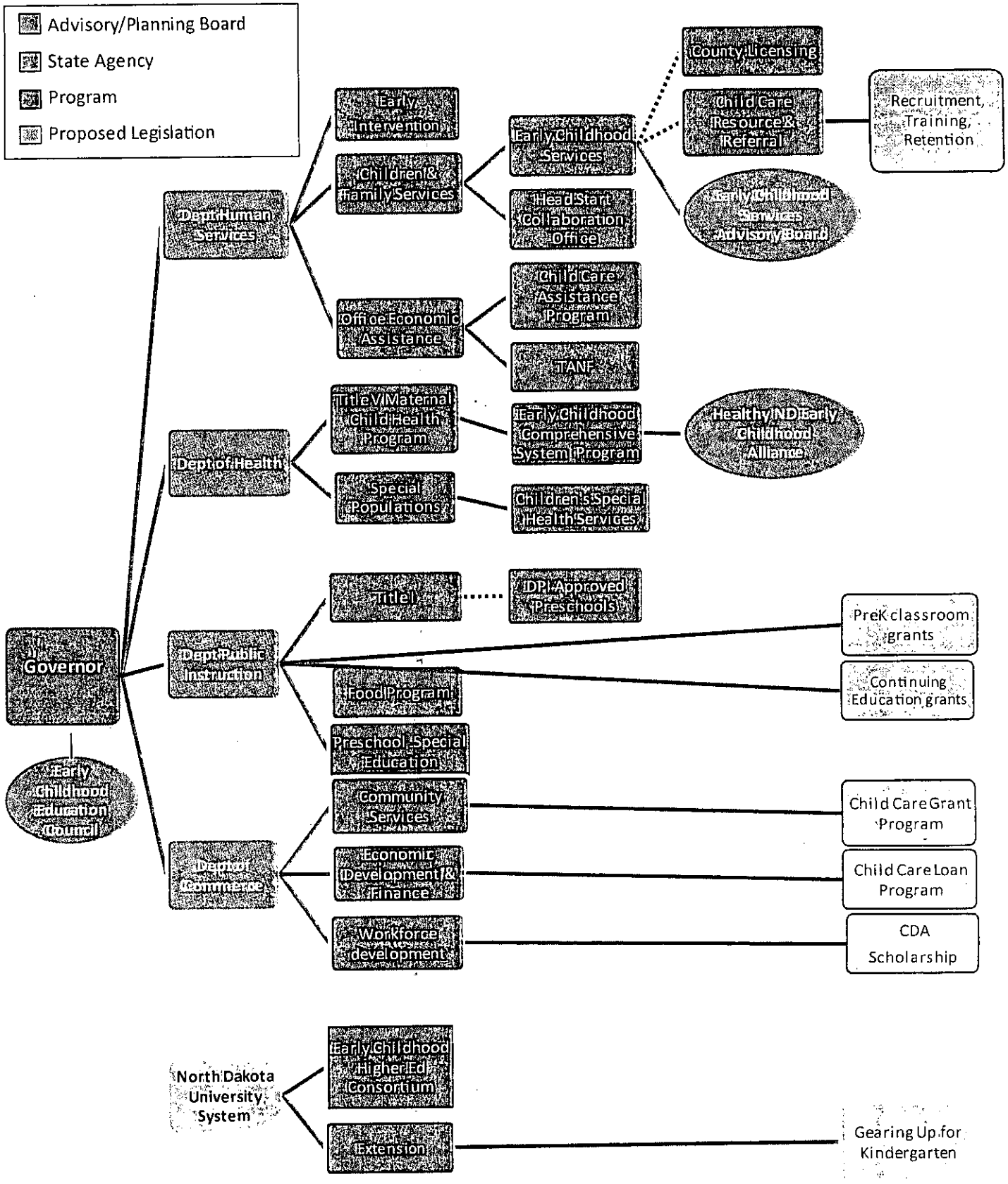
NDSU NORTH DAKOTA STATE UNIVERSITY

Department 628 - Branch Research Centers
Actual Cost Dollar Value of Equipment

	Inside		Outside		
REC	Actual Cost	%	Actual Cost	%	Total
Dickinson	$ 825,185	71.9%	$ 322,889	28.1%	$ 1,148,073
Central Grasslands	387,678	43.8%	$ 497,429	56.2%	885,108
Hettinger	861,481	54.6%	$ 715,745	45.4%	1,577,225
Langdon	667,036	93.0%	$ 49,963	7.0%	716,999
North Central	1,170,979	81.8%	$ 260,646	18.2%	1,431,625
Williston	708,685	65.2%	$ 379,071	34.8%	1,087,756
Carrington	1,009,075	39.2%	$ 1,565,548	60.8%	2,574,623
Total	$ 5,630,119	59.8%	$ 3,791,290	40.2%	$ 9,421,409

HB 1020
Feb. 18, 2011
Attachment 1

North Dakota Early Childhood Diagram



HB 1020
Feb. 18, 2011
Attachment 2

A PROPOSAL FOR THE NORTH DAKOTA COMMISSION ON EDUCATION IMPROVEMENT

gearing up for Kindergarten

A program developed by the NDSU Extension Service with support and funding from United Way of Cass Clay and the North Dakota Parent Involvement Resource Center (Minot).

Vision: *To assure the success of each child entering school by providing education and support needed for North Dakota 4 year olds and their parents.*

Program Description

- *Gearing Up for Kindergarten* is a school readiness and parent involvement opportunity for parents and their 4-year-old child who will be entering kindergarten the following year.
- The objectives of the program target school readiness for children, parent education, early academic awareness and intervention as needed, parent involvement and building home-school-community partnerships.
- Families experience an intensive educational series (10-16 weeks) that combines learning activities for the child with parent education for adults.
- Early education topics include math, science exploration, motor development, sensory development and reading/literacy.
- Parent education topics include: brain development, parenting styles, raising a reader, guidance and discipline, learning styles, temperament, safety and parent role in school success.
- From birth to grade 3 children learn to read. From grade 4 to adulthood students read to learn. Students who come to school ready to learn will graduate from school ready for life.

What is School Readiness?

- Until recently, the phrase was used in connection with a child's preparedness to meet the demands of a first grade classroom. With the contemporary push-down of curriculum, readiness is now meant to examine a child's preparedness to meet the demands of kindergarten.
- To some, this means an entirely academic effort such as knowing numbers and letters. However, the skills a child needs to succeed in kindergarten also relate to working cooperatively with other children, following instructions and being able to communicate. Maturation plays a role in the attainment of school skills, but the child's experiences are the most significant contributor to school readiness.
- School readiness includes physical, social and emotional components. Parent involvement is strongly related to school readiness and success. A child's first teacher is the parent. Families, schools and communities need to work together to be ready for the child, as well as have the child ready for school.

Why School Readiness?

- Transition to school is a critical developmental stage for students and a peak learning phase for parents. The achievement gap originates in the early education years.
- There are four measures most significant in identifying the achievement gap: 1) alphabet letter recognition, 2) letter sound recognition, 3) phonemic awareness and 4) ability to print their name. Familiarity with numbers and alphabet were significantly improved among children in the Gearing Up for Kindergarten program.
- Studies estimate that 32% of kindergartners have some problems entering school, while another 16% have difficult entries to school, making a total of 48% kindergarten students at risk of having academic problems (3,624 of 7,500 North Dakota kindergarten students).
- Remedial costs average $3,500 per year/student.
- North Dakota is one of 10 states listed as spending $0 on Pre-K/early education.
- 65% of North Dakota fourth graders scored below the national proficient reading level in 2009. Research shows early education can improve this number.

Documented Program Impacts

Participants who completed the program were compared to a control group of families that did not complete the program. Results indicated that:

- 85% percent said it was very or extremely useful to them.
- Parents and children who participated in the program showed significant increases in 12 of 13 measures of parenting and child school readiness compared with nonparticipants.
- Social skill development was 3 times higher and emotional skill development was 2 times higher in children who participated than those who did not.
- Familiarity with numbers was 4 times higher and familiarity with the alphabet was 2.5 times higher for children who participated, compared with those who did not.

Gearing Up for Kindergarten

Pilot program funding provided by the North Dakota Parent Information Resource Center – Minot (federal DOE grant), United Way of Cass-Clay, United Way of Dickinson, and the NDSU Extension Service.

Cost per family for 16 sessions:

Extension study site*	$590
School-based site	$459

Cost per family for 10 sessions:

Extension study site*	$450
School-based site	$317

Number of North Dakota kindergarten students in 2009-2010: **7,500**

Number of elementary schools in 2009-2010: **340**

Budget Detail:

$4,750 for 10 sessions serving 15 families = $317/family

Instructional Supplies	$ 950 (books, curricula)
Printing	$ 250 (handouts, promotion)
Certified Kindergarten Teacher	(4 hours/session) $1,000 ($100 x 10 sessions)
Classroom para	$ 400 ($40 x 10 sessions)
Parent Educator	$1,000 ($100 x 10 sessions)
Child Care Provider	$ 400 ($40 x 10 sessions)
Food	$ 750 ($5/family x 15 x 10 weeks)

**Add $2,000 for study sites which is $450 per family*

$6,880 for 16 sessions serving 15 families = $459/family

Instructional Supplies	$ 950 (books, curricula)
Printing	$ 250 (handouts, promotion)
Certified Kindergarten Teacher	(4 hours/session) $1,600 ($100 x 16 sessions)
Classroom para	$ 640 ($40 x 16 sessions)
Parent Educator	$1,600 ($100 x 16 sessions)
Child Care Provider	$ 640 ($40 x 16 sessions)
Food	$1,200 ($5/family x 15 x 16 weeks)

***Add $2,000 for study sites which is $592 per family*

Program Review

Gearing Up for Kindergarten began as a 16-week program. Studies to date have tested several delivery models including 4-, 10-, and 16-week sessions that run either consecutively or in split format (fall and spring). Data indicated that 4-week sessions did not yield significant results when compared to the 10- and 16-week sessions, resulting in the elimination of the 4-week format.

Data has not been analyzed to determine whether there is a significant difference between the 10- and 16-week sessions. Some schools were concerned that 16-week format was too long and attendance would drop, but data indicated an average 85% completion rate for all lengths offered. This is an impressive number, indicating that parents and their child return due to the value of the program.

School districts served to date:

Mayville	Minot
Rugby	Fargo
LaMoure	Dickinson
Edgeley	Mandan
Rolla/Dunseith	Grand Forks
Northern Cass	Williston
Kindred/Davenport	Trenton
West Fargo	Surrey
Richland/Colfax	Sawyer

School Year	# of School Districts		# of Sites		# of Families Served	
	study	school	study	school	study	school
06-07	3		6		109	
07-08	10		15		234	
08-09	12		18		290	
09-10	12	3	23	3	340	45
10-11 Last year of funding	13	4	25	4	375	60

Funding Proposal

State appropriated dollars to support reimbursable grants to schools that successfully implement Gearing Up for Kindergarten program. Funds will support personnel costs up to $2,000 per session.

Base Funding

- Training and on-going support provided by 8 regional Parent Resource Center's (see Extension budget request to fill staffing needs).
- Annual cost of statewide program coordination/ evaluation with the NDSU Extension Service = $165,000 x 2 years = $330,000.

State Reimbursable Grant

- $2,000 for personnel costs per session of 15 students and families (additional costs covered by school district/locally obtained grants). There were 7,500 kindergarten students in North Dakota in 2009. Each session serves 15 students. A total of 500 sessions would be needed to serve every 4-year-old child/ family in North Dakota (based on 10-session program).
- 250 sessions x $2,000 = $500,000
- Proposed State Budget: $830,000

NDSU Extension Service
NORTH DAKOTA STATE UNIVERSITY

Making a difference

Gearing Up for Kindergarten – Key Findings Show Impacts on School Readiness and Parenting

The situation

The academic and social expectations of children entering kindergarten have changed a great deal from previous generations. National research suggests that teachers estimate 32% of kids have some problems entering kindergarten and another 16% have difficult entries into kindergarten. Current research also shows that quality early childhood programs produce more successful students, better transitions between home and school, and increased abilities of children to navigate their world. In North Dakota, nearly 47,000 children between ages 0 and 5 are preparing for their entry into school and needing to gain knowledge and skills for success.

Extension response

Since the fall of 2006, the NDSU Extension Service has worked to develop a prevention-focused parent and family education program designed to facilitate child development and school readiness for families in North Dakota. In the 2008-09 school year, the program operated at 18 sites across North Dakota with 290 families participating. The 16-week program, offered in two 8-week sessions in the spring and fall year before a child enters kindergarten, combines parent-child learning activities, parent education, and school readiness skills for children. An intensive control group study evaluated outcomes for parents and children who participated in *Gearing Up for Kindergarten* versus those who did not.

Impacts

Based on responses by families who participated with their child(ren) in the *Gearing Up for Kindergarten* program or the control group during the 2008-09 school year, the following impacts were reported:

- Parents and children in *GUK* showed significantly higher increases than non-participants on 12 of 13 measures of parenting and child school readiness.
- Participants rated *GUK* as a significantly more valuable source of information on parenting and school readiness than any other source.
- On social skills and development, children in the *GUK* group had an increase 3 times higher than children who did not participate.
- On pre-academic skills and development, children in the *GUK* group had an increase 3 times higher than children who did not participate.
- On emotional skills and development, children in the *GUK* group had an increase 2 times higher than children who did not participate.
- On familiarity with numbers, children in the *GUK* group had an increase 4 times higher than children who did not participate.
- On familiarity with the alphabet, children in the *GUK* group had an increase 2.5 times higher than children who did not participate.
- On solving problems with peers, children in the *GUK* group had an increase 4 times higher than children who did not participate.
- On parent-child interactions, parents in the *GUK* group had an increase 2 times higher than adults who did not participate.
- On parent-child reading, parents in the *GUK* group had an increase 4 times higher than adults who did not participate.
- On parent-child practical knowledge, parents in the *GUK* group had an increase 9 times higher than adults who did not participate.

Contact

Sean Brotherson, PhD
Extension Family Life Specialist
North Dakota State University
(701) 231-6143
sean.brotherson@ndsu.edu

County commissions, North Dakota State University and U.S. Department of Agriculture cooperating. Duane Hauck, director, Fargo, N.D. Distributed in furtherance of the acts of Congress of May 8 and June 30, 1914. We offer our programs and facilities to all people regardless of race, color, national origin, religion, gender, disability, age, veteran's status or sexual orientation; and are an equal opportunity institution. This publication will be made available in alternative formats for people with disabilities upon request, (701) 231-7881. 2009-2010

Cost Estimates for NDAES Portable Seed Conditioning Plants

Portable seed conditioning plants suitable for conditioning both small grains and pulses don't differ much in equipment and construction. In both instances gentle seed handling features are beneficial so even though augers could be employed on a plant constructed solely for handling cereals; elevator legs and belt conveyors are becoming the industry standard because the increased cost is minimal, seed handling is more gentle and clean up is easier. Therefore, both builders surveyed and an experienced pulse conditioner agreed that a plant should be constructed that would be adaptable to both pulses and cereals.

A portable conditioner should include an air screen cleaner, an indent mill, and a gravity mill. A reasonable capacity for one of these plants is to attempt to condition 400 bushels per hour. Properly sized mills that would have this capacity on most small grains would have a similar capacity on soybeans, field peas and chickpea but have 200-250 bu capacity on lentils because of their smaller size. The cleaner would be configured so that the indent mill could be bypassed for the crops that don't need it (soybean, peas, garbanzos) which is also a feature that we have on our existing portable mill. There are several companies that make this equipment and costs and features vary but a range of costs for an air screen (new) would be from $60,000 to $75,000 and could be higher as more screen sizes are added to handle different crops. Usually a portable mill has to use a separate air fan and duct work because of height limitations which would add $15,000 to $20,000.

A gravity mill sized for this operation costs $75,000 (Oliver 3600) Competitive models would be within 20% but this is a good average figure. The indent mills (again several choices) cost $50,000 give or take 20%. The summary is that the three mills that form the inner workings of the portable conditioners would cost about $220,000.

Legs, augers, and conveyors needed to move seed into and away from the mills and handle cleanout and clean seed both from the mills and to the receiving trucks (14 total on our existing portable mill) will cost about $50,000. Air system and cyclones cost about $25,000 and the trailer to carry it all is $45,000. This includes leveling jacks, ladders and catwalks. Electrical controls, motors, and cost relating to installing the electrical equipment cost $75,000.

Construction labor to assemble and test everything will cost $135,000. At this point I have made no allowance for a generator set to power it or any enclosing structure for the mills. In my opinion, the best way to utilize portable mills at the RECs is to have a building at each location to house the portable conditioning plant so that it can be used regardless of wind, rain, snow etc. If this is the case, no generator set or enclosures would be necessary, each location would have a suitable electrical hookup to power the unit and if it is inside, no enclosure is needed. No matter how well designed and constructed the sides and roof are, they get in the way of the cleaning operation.

Summary:

Item	Cost
Air screen	75,000
Indent	50,000
Gravity	75,000
Air system	25,000
Conveying equipment	50,000
Cyclones and ducts	25,000
Trailer , jacks	45,000
Electrical	75,000
Labor	135,000
Subtotal	**$555,000**

Optional Genset	$30,000
enclosure	30,000
Total	**$615,000**

Cost Estimates for NDAES Portable Seed Conditioning Plants

Color sorters:

The most common color sorter I'm aware of is the Sataki brand. An 80 channel Sataki should be able to handle up to 400 bushels per hour of the larger seeded crops such as soybean or chick pea with less volume on smaller seeded crops. The current price of such a machine is $142,000.

The installed price will vary considerably depending on the existing facilities available since this requires a heated location and a large capacity compressed air system to operate the extraction mechanism. Typically this is a screw type compressor (about $10,000) and some sort of hopper or holding bins both before and after the color sorter to hold the product and conveying systems to move the product in and out.

A ballpark guess would be $200,000 for such a system if an existing building can be retrofitted to house and heat the color sorter and related equipment. Minor cost savings can be realized by dropping down to a 40 channel machine but according to one vendor this would result in only a $20,000 savings.

Based on my preliminary investigations for the cost of three mobile mills for the conditioning cereals and pulse seed and four color sorters using two vendors who are experienced and capable of providing this equipment, my best estimate is that the total cost would be $1,845.000 for three mobile mills and $800,000 for four color sorters. Neither of these estimates makes any allowance for any buildings to house any of the equipment.

Comparable Wages for ND Jobs
Soil Conservation Salaries

(compiled from ND Job Service—"Wages for ND Jobs", 2010 edition featuring 2009 data)

			SCD Avg.
Clerk	(avg. of all experience levels)	13.94	13.35
This includes an average of similar jobs including Switchboard operator, billing and posting clerk, bookkeeping accounting clerk, payroll and timekeeping clerk, file clerk, receptionist, executive secretary			
Technician	(avg. of all experience levels)	14.86	13.85
This includes an average of similar jobs including farming, fishing, forestry technician, farming, fishing, forestry supervisor/manager, ag equipment operators, forest and conservation workers, farm equipment mechanics			

Assumptions

In compiling these figures, it is assumed that approximately 80% of SCDs do not have either retirement or health benefits.

In SCDs covered under the county health insurance policy (very few), the county usually retains some of the mill levy dollars or bills the SCD.

Sorenson, Brian

From: Sorenson, Brian
Sent: Wednesday, March 23, 2011 7:46 AM
To: Doug Goehring (goehring@nd.gov)
Cc: Briggs, Linda; Crabtree, John; David Clough (cloughs@gondtc.com); Bob Majkrzak (bobm@redriv.com); Sorenson, Brian
Subject: NCI Century Code Exemption Request

Hello Doug,

Thank you for your assistance with this request. Please call me on my cell if you have any questions.

The Northern Crops Council, the governing body of the Northern Crops Institute is faced with an issue regarding the number of council members that are scheduled to leave the council at one time. In June of 2013, 8 of the 17 members are scheduled to complete their second terms and leave the council. The Century Code does not include any provisions for modifying term lengths to rebalance the timing of the individual member terms in regards to when the 3-year terms start and end. At the semiannual NCC meeting in Fargo on March 22, 2011, the council passed the following motion to deal with this issue:

To request from the North Dakota Legislature, a one-time exemption from North Dakota Century Code Chapter 4-14.2-02 to adjust the term lengths of up to four of the current council members, by no more than one year each, to avoid having 8 of the 17 seats being vacated in June of 2013.

The intention of the council is to lengthen the terms of two of the members (one producer and one industry) by one year, and shorten the terms of two members (one producer and one industry) by one year. The permanent member terms would not be affected.

I will be testifying on Thursday afternoon for HB 1020, and scheduled to arrive at the Capital between 1:30 and 2:00pm.

Thanks again,
Brian

Brian Sorenson, Director
Northern Crops Institute
Fargo, North Dakota
Phone: 701.231.6048
Cell: 701.799.7733

Prepared by the North Dakota Legislative Council staff

March 2011

CHILD CARE-RELATED FUNDING - 2009-11 AND 2011-13 BIENNIUMS

The schedule below provides information on funding provided for child care and early childhood education for the 2009-11 biennium, 2011-13 executive budget, and legislative action through crossover.

Program Description	2009-11 Biennium		2011-13 Executive Budget		Legislative Action Through Crossover	
	General Fund	Total	General Fund	Total	General Fund	Total
Agriculture Extension Service						
Provides educational programs and resources on parenting and family issues through regional parent resource centers	$250,000	$250,000[1]	$250,000	$250,000[1]	$250,000	$250,000[1]
Gearing Up for Kindergarten funding is provided to expand the program statewide--$500,000 is for programming sessions and $330,000 for administrative and organizational costs of the expansion.			830,000	830,000	830,000	830,000
Department of Commerce						
Loan assistance to early childhood facilities for acquiring, leasing, or remodeling of real estate facilities or for acquiring equipment for establishing or expanding a licensed early childhood facility, limited to $100,000 per award in the 2009-11 biennium and increased to $200,000 per award in the 2011-13 executive budget.	1,250,000	1,250,000	400,000	400,000	250,000	250,000
Grants for early childhood facilities for technical assistance, a business plan, or infrastructure. Grants are limited to $5,000 per recipient for infrastructure and $10,000 per recipient for technical assistance or a business plan. Requires a $1 match for every $3 of grant funds.	500,000	500,000	500,000	500,000	100,000	100,000
Administration of the child care loan and grant programs	70,000	70,000	20,338	20,338	20,338	20,338
Child development credential grants to provide funding to individuals seeking a child development associate credential, limited to $1,200 per recipient			150,000	150,000		
Grants to child care service providers for workforce development, quality improvement technical assistance, and capacity building in collaboration with the Department of Human Services under North Dakota Century Code Section 50-11.1-14.1					4,935,000	5,000,000[2]
Department of Public Instruction						
Grants of up to $5,000 per classroom to assist schools making safety compliant space available for licensed prekindergarten programs			125,000	125,000	125,000	125,000
Continuing education grants for preschool teachers			150,000	150,000	150,000	150,000
Department of Human Services						
Child care grant payments are made to providers on behalf of eligible recipients for child care services provided	350,197	22,359,834	252,686	20,554,852	252,686	20,554,852

B

Program Description	2009-11 Biennium General Fund	2009-11 Biennium Total	2011-13 Executive Budget General Fund	2011-13 Executive Budget Total	Legislative Action Through Crossover General Fund	Legislative Action Through Crossover Total
Child care transition assistance includes payments made to temporary assistance for needy families (TANF)-eligible recipients for child care services. (2011 SB 2095 provides for the payments to be made to the providers instead of the eligible recipient. The bill has passed both chambers.)		892,700		788,740		788,740
Head Start collaboration provides support to local Head Start programs and serves as the state's liaison to the federal Head Start agency.		262,643		235,263		235,263
Early childhood contracts provide training, technical assistance, and professional development for child care providers, maintains child care provider lists, and recruits providers.	166,221	6,361,399[3]	166,221	2,717,399	166,221	2,717,399
Other bills under consideration						
HB 1373 provides an appropriation to the Department of Human Services to provide grants for federally designated Head Start programs in the state. Grants provided require that a matching amount be received through gifts, grants, or donations from nonstate sources.					1,000,000	1,000,000[4]
SB 2298 provides that the Department of Human Services establish an early childhood services inclusion grant program for licensed early childhood services providers that provide care for children with disabilities or developmental delays. An appropriation is provided for the early childhood services inclusion support services and for establishing a grant program.						150,000[5]
Total	$2,586,418	$31,946,576	$2,844,245	$26,721,592	$8,079,245	$32,171,592

[1]Amounts shown consist of funding provided directly to the Extension Service in the agency appropriation bill. The Extension Service also receives passthrough funds from other entities for programs offered at the parenting resource centers, including:

- Nurturing parent program--funded by federal funds through the Department of Human Services.
- Community-based child abuse prevention--funded by federal funds through the Department of Human Services.
- Parenting resource center network grant--funded by federal funds through the Department of Human Services.
- Parenting resource center enhancement grant--funded by federal funds through the Department of Human Services.
- Developmental disabilities grant--funded by federal funds through the Department of Human Services.
- North Dakota State University Development Foundation grant.

[2]The $65,000 of special funds consist of carryover from the unspent 2009-11 biennium $5 million appropriation for a Great Plains Applied Energy Research Center.

[3]In the 2009-11 biennium, American Recovery and Reinvestment Act of 2009 funding of $3.6 million was utilized to develop the quality rating improvement system to maintain the consistency and quality of providers.

[4]House Bill No. 1373, as introduced, provided an appropriation of $6.15 million from the general fund for grants to federally designated Head Start programs in the state.

[5]As amended by the House, Senate Bill No. 2298 provided $150,000 from the lands and minerals trust fund, $100,000 for early childhood services inclusion support, and $50,000 for the early childhood services grant program. The original bill provided $600,000 from the general fund and $650,000 in federal funds or other income from the TANF program.

Prepared by the Legislative Council staff
for
March 28, 2011

LISTING OF PROPOSED CHANGES TO HOUSE BILL NO. 1020

Department -

627 Upper Great Plains Transportation Institute
628 Branch Research Centers
630 Extension Service
638 Northern Crops Institute
640 Main Research Center
649 Agronomy Seed Farm

Proposed funding changes:

	Description	FTE	General Fund	Special Funds	Total
1	Remove funding and FTE provided by the House for the State Data Center	(1.00)	($125,000)		
2	Remove funding provided by the House for the capital project at the Carrington Research Extension Center		($2,225,000)		
3	Restore funding removed by the House for the Livestock Stewardship Initiative		$250,000		
4	Add funding for State Soil Conservation Committee		$100,000		
	Total proposed funding changes	(1.00)	($2,000,000)	$0	$0

Other items of consideration:

1	Funding added by the House for operations at the Dickinson Research Center from the permanent oil tax trust fund		$800,000
2	Grant to Grape Growers Association	$250,000	
3	Department of Agriculture molasses testing initiative	$60,000	
4	Gearing Up For Kindergarten	$830,000	
5	HB 1373 - Department of Human Services grants to head start programs.	$1,000,000	
6	Northern Crops Institute request to provide an exemption to the term limitation on board members for 4 current members.		

* This request is not in another bill. This is the first time the agency is aware of that a term extension has been requested.

A

NDSU Main & Branch Research Centers and Extension Service
Comparison of Prioritized Initiatives

		Included in 2011-13 Budget Request	Included in 2011-13 Executive Recommendation	House Version	Senate Version	Difference Senate to House Version
SBARE Initiatives						
	NDSU Main & Branch Research Centers					
1	Greenhouse utilities	$173,622	$173,622	173,622	173,622	-
2	Enhancing soil productivity and land management for future ND	1,410,000	1,410,000	1,410,000	1,410,000	-
3	Infrastructure (equipment, operating, graduate students, and office support staff)	1,880,000	1,880,000	1,880,000	1,880,000	-
4	Improving the state's economy by enhancing crop development efforts	2,700,000	-	490,000 1/	490,000 1/	-
5	Improving animal productivity and livestock stewardship for increased profitability in the livestock industry	810,000	-	-	-	-
6	Crop commodity quality/trait and utilization development	1,110,000	-	-	-	-
7	Animal health initiative	1,010,000	-	-	-	-
8	Plant physiologist	290,000	-	-	-	-
9	State data center	250,000	-	125,000 2/	- 2/	(125,000)
10	Organic/sustainable agriculture systems	300,000	-	-	-	-
	Sub-Total	9,933,622	3,463,622	4,078,622	3,953,622	(125,000)
	NDSU Extension Service					
1	Infrastructure: technical support	450,000	450,000	450,000	450,000	-
2a	Soil health and land management	690,000	690,000	690,000	690,000	-
2b	Livestock stewardship	250,000	250,000	- 3/	250,000 3/	250,000
3a	Agents-in-training and summer internship program	500,000	-	-	-	-
3b	Crop protection	440,000	-	-	-	-
4a	Infrastructure: information technology	150,000	-	-	-	-
4b	Agricultural entrepreneurship and rural business transition	500,000	-	-	-	-
5	Health, wealth and quality of life for ND	500,000	-	-	-	-
6	Identity-preserved and specialty agriculture	440,000	-	-	-	-
7	Infrastructure: operating	80,000	-	-	-	-
	Gearing up for Kindergarten		830,000	830,000	830,000 *	-
	Sub-Total	4,000,000	2,220,000	1,970,000	2,220,000	250,000
	State Soil Conservation Committee (Included in Extension Service)	150,000	50,000	50,000	150,000 4/	100,000
	TOTAL - SBARE Initiatives	14,083,622	5,733,622	6,098,622	6,323,622	225,000
Capital and One-time Funding Increases:						
	NDSU Main & Branch Research Centers					
1	Research Greenhouse Complex ($6,991,650 Gen. Fund, $2,502,931 Spec. Funds)	9,494,581	9,494,581	9,494,581	9,494,581	-
2	Agronomy Laboratories	5,275,000	-	2,225,000 4/	- 5/	(2,225,000)
3	Seed Conditioning Plants	8,400,000	-	-	-	-
	Deferred maintenance (Main Station and RECs)	$4,203,401	-	-	-	-
	Dickinson REC funds from Permanent Oil Trust Fund to replace declining oil royalty			800,000 5/	800,000 *	-
	Extension Service					
	4-H Conference Center ($2,500,000 Gen. Fund, $1,300,000 Spec. Funds)	3,800,000	-	-	-	-
	IVN equipment upgrades (at 20 sites)	262,000	-	-	-	-
	Update of ND agricultural land valuation model	50,000	-	-	-	-
	TOTAL - Capital and One-time Funding Increases	31,484,982	9,494,581	12,519,581	10,294,581	(2,225,000)
	TOTAL	$ 45,568,604.00	$ 15,228,203.00	$ 18,618,203.00	$ 16,618,203.00	$ (2,000,000.00)

House adjustments:

1/ Funding was added to enhance canola crop development efforts; $210,000 from the general fund for 1FTE - Breeder, $125,000 of special fund authority for 1 FTE - technician, and $120,000 of special fund authority for 1 FTE - Specialist at North Central Research Center.
2/ Funding and 1 FTE was added for the SBARE initiative relating to the State Data Center.
3/ Funding for the SBARE initiative relating to livestock stewardship was removed.
4/ Funding was added for the agronomy laboratory capital project at the Carrington Research Center.
5/ Funding was added for operations at the Dickinson Research Center from the permanent oil tax trust fund.

Proposed Senate Adjustments

1/ Continue funding added by the House to enhance canola crop development efforts; $210,000 from the general fund for 1FTE - Breeder, $125,000 of special fund authority for 1 FTE - technician, and $120,000 of special fund authority for 1 FTE - Specialist at North Central Research Center.
2/ Remove funding and 1 FTE added by the House for the SBARE initiative relating to the State Data Center.
3/ Restore funding for the SBARE initiative relating to livestock stewardship that was removed by the House.
4/ Adds funding to increase funding available to the State Soil Conservation Committee
5/ Remove funding added by the House for the agronomy laboratory capital project at the Carrington Research Center.

* **Other items under consideration**

Funding added by the House for operations at the Dickinson Research Center from the permanent oil tax trust fund. ($800,000)
Gearing up for Kindergarten ($830,000)
Grant to Grape Growers ($250,000)
Department of Agriculture molasses testing initiative ($60,000)
HB 1373 - Department of Human Services grants to head start programs.
Northern Crops Institute request to provide an exemption to the term limitation on board members for 4 current members.
* This request is not in another bill. This is the first time the agency is aware of that a term extension has been requested.

HB1020
NDSU Extension
4/13/11
attachment # 1

STATEMENT OF PURPOSE OF AMENDMENT:

House Bill No. 1020 - Funding Summary

	Executive Budget	House Version	Senate Changes	Senate Version
Transportation Institute				
Upper Great Plains Transp Institute	$24,069,961	$24,069,961		$24,069,961
Total all funds	$24,069,961	$24,069,961	$0	$24,069,961
Less estimated income	22,150,333	22,150,333	0	22,150,333
General fund	$1,919,628	$1,919,628	$0	$1,919,628
FTE	52.30	52.30	0.00	52.30
Branch Research Centers				
Dickinson Research Center	$5,588,562	$6,388,562		$6,388,562
Central Grasslands Research Center	2,865,847	2,865,847		2,865,847
Hettinger Research Center	3,373,175	3,373,175		3,373,175
Langdon Research Center	2,378,807	2,378,807		2,378,807
North Central Research Center	4,279,821	4,399,821		4,399,821
Williston Research Center	3,200,089	3,200,089		3,200,089
Carrington Research Center	7,126,488	9,351,488	(2,225,000)	7,126,488
Total all funds	$28,812,789	$31,957,789	($2,225,000)	$29,732,789
Less estimated income	14,877,581	15,797,581	0	15,797,581
General fund	$13,935,208	$16,160,208	($2,225,000)	$13,935,208
FTE	95.49	96.49	0.00	96.49
NDSU Extension Service				
Extension Service	$47,856,654	$47,606,654	($580,000)	$47,026,654
Soil Conservation Committee	887,800	887,800	100,000	987,800
Total all funds	$48,744,454	$48,494,454	($480,000)	$48,014,454
Less estimated income	23,128,810	23,128,810	0	23,128,810
General fund	$25,615,644	$25,365,644	($480,000)	$24,885,644
FTE	255.75	255.75	1.00	256.75
Northern Crops Institute				
Northern Crops Institute	$3,347,307	$3,347,307		$3,347,307
Total all funds	$3,347,307	$3,347,307	$0	$3,347,307
Less estimated income	1,654,725	1,654,725	0	1,654,725
General fund	$1,692,582	$1,692,582	$0	$1,692,582
FTE	11.00	11.00	0.00	11.00
Main Research Center				
Main Research Center	$97,897,571	$98,392,571	$315,000	$98,707,571
Total all funds	$97,897,571	$98,392,571	$315,000	$98,707,571
Less estimated income	43,973,575	44,133,575	0	44,133,575
General fund	$53,923,996	$54,258,996	$315,000	$54,573,996
FTE	329.26	332.26	1.00	333.26
Agronomy Seed Farm				
Agronomy Seed Farm	$1,435,168	$1,435,168		$1,435,168
Total all funds	$1,435,168	$1,435,168	$0	$1,435,168
Less estimated income	1,435,168	1,435,168	0	1,435,168
General fund	$0	$0	$0	$0
FTE	3.00	3.00	0.00	3.00

Bill Total				
Total all funds	$204,307,250	$207,697,250	($2,390,000)	$205,307,250
Less estimated income	107,220,192	108,300,192	0	108,300,192
General fund	$97,087,058	$99,397,058	($2,390,000)	$97,007,058
FTE	746.80	750.80	2.00	752.80

House Bill No. 1020 - Transportation Institute - House Action

The House did not change the executive budget recommendation for the Transportation Institute.

House Bill No. 1020 - Transportation Institute - Senate Action

The Senate did not change the House version for the Transportation Institute.

House Bill No. 1020 - Branch Research Centers - House Action

	Executive Budget	House Changes	House Version
Dickinson Research Center	$5,588,562	$800,000	$6,388,562
Central Grasslands Research Center	2,865,847		2,865,847
Hettinger Research Center	3,373,175		3,373,175
Langdon Research Center	2,378,807		2,378,807
North Central Research Center	4,279,821	120,000	4,399,821
Williston Research Center	3,200,089		3,200,089
Carrington Research Center	7,126,488	2,225,000	9,351,488
Total all funds	$28,812,789	$3,145,000	$31,957,789
Less estimated income	14,877,581	920,000	15,797,581
General fund	$13,935,208	$2,225,000	$16,160,208
FTE	95.49	1.00	96.49

Department 628 - Branch Research Centers - Detail of House Changes

	Adds Funding for SBARE Canola Initiative[1]	Adds Funding for Dickinson Research Center[2]	Adds Funding for Capital Project[3]	Total House Changes
Dickinson Research Center		800,000		800,000
Central Grasslands Research Center				
Hettinger Research Center				
Langdon Research Center				
North Central Research Center	120,000			120,000
Williston Research Center				
Carrington Research Center			2,225,000	2,225,000
Total all funds	$120,000	$800,000	$2,225,000	$3,145,000
Less estimated income	120,000	800,000	0	920,000
General fund	$0	$0	$2,225,000	$2,225,000
FTE	1.00	0.00	0.00	1.00

[1] Funding is added for a State Board of Agricultural Research and Education (SBARE) initiative to enhance canola crop development efforts.

[2] Funding is added for operations at the Dickinson Research Center from the permanent oil tax trust fund.

[3] Funding is added for the agronomy laboratory capital project at the Carrington Research Center.

House Bill No. 1020 - Branch Research Centers - Senate Action

	Executive Budget	House Version	Senate Changes	Senate Version
Dickinson Research Center	$5,588,562	$6,388,562		$6,388,562
Central Grasslands Research Center	2,865,847	2,865,847		2,865,847
Hettinger Research Center	3,373,175	3,373,175		3,373,175
Langdon Research Center	2,378,807	2,378,807		2,378,807
North Central Research Center	4,279,821	4,399,821		4,399,821
Williston Research Center	3,200,089	3,200,089		3,200,089
Carrington Research Center	7,126,488	9,351,488	(2,225,000)	7,126,488
Total all funds	$28,812,789	$31,957,789	($2,225,000)	$29,732,789
Less estimated income	14,877,581	15,797,581	0	15,797,581
General fund	$13,935,208	$16,160,208	($2,225,000)	$13,935,208
FTE	95.49	96.49	0.00	96.49

Department 628 - Branch Research Centers - Detail of Senate Changes

	Removes Funding for Capital Project[1]	Total Senate Changes
Dickinson Research Center		
Central Grasslands Research Center		
Hettinger Research Center		
Langdon Research Center		
North Central Research Center		
Williston Research Center		
Carrington Research Center	(2,225,000)	(2,225,000)
Total all funds	($2,225,000)	($2,225,000)
Less estimated income	0	0
General fund	($2,225,000)	($2,225,000)
FTE	0.00	0.00

[1] Funding added by the House for the agronomy laboratory capital project at the Carrington Research Center is removed.

House Bill No. 1020 - NDSU Extension Service - House Action

	Executive Budget	House Changes	House Version
Extension Service	$47,856,654	($250,000)	$47,606,654
Soil Conservation Committee	887,800		887,800
Total all funds	$48,744,454	($250,000)	$48,494,454
Less estimated income	23,128,810	0	23,128,810
General fund	$25,615,644	($250,000)	$25,365,644
FTE	255.75	0.00	255.75

Department 630 - NDSU Extension Service - Detail of House Changes

	Removes Funding for SBARE Livestock Stewardship Initiative[1]	Total House Changes
Extension Service	(250,000)	(250,000)
Soil Conservation Committee		
Total all funds	($250,000)	($250,000)
Less estimated income	0	0
General fund	($250,000)	($250,000)
FTE	0.00	0.00

[1] Funding for the SBARE initiative relating to livestock stewardship is removed.

House Bill No. 1020 - NDSU Extension Service - Senate Action

	Executive Budget	House Version	Senate Changes	Senate Version
Extension Service	$47,856,654	$47,606,654	($580,000)	$47,026,654
Soil Conservation Committee	887,800	887,800	100,000	987,800
Total all funds	$48,744,454	$48,494,454	($480,000)	$48,014,454
Less estimated income	23,128,810	23,128,810	0	23,128,810
General fund	$25,615,644	$25,365,644	($480,000)	$24,885,644
FTE	255.75	255.75	1.00	256.75

Department 630 - NDSU Extension Service - Detail of Senate Changes

	Restores Funding for SBARE Livestock Stewardship Initiative[1]	Adds Funding for Soil Conservation Committee[2]	Removes Funding for Gearing Up for Kindergarten[3]	Total Senate Changes
Extension Service	250,000		($830,000)	(580,000)
Soil Conservation Committee		100,000		100,000
Total all funds	$250,000	$100,000	($830,000)	($480,000)
Less estimated income	0	0	0	0
General fund	$250,000	$100,000	($830,000)	($480,000)
FTE	1.00	0.00	0.00	1.00

[1] Funding is restored for the State Board of Agricultural Research and Education (SBARE) initiative relating to livestock stewardship that was removed by the House.

[2] Funding is added for the soil conservation committee to increase the total funding provided from $887,800 to $987,800.

[3] Funding provided in the executive budget to expand the Gearing Up for Kindergarten program to a statewide scope is removed.

House Bill No. 1020 - Northern Crops Institute - House Action

The House did not change the executive budget recommendation for the Northern Crops Institute.

House Bill No. 1020 - Northern Crops Institute - Senate Action

Section 4-14.2-02, relating to the Northern Crops Council, is amended and reenacted to permit the council to stagger the terms of producers of northern crops and representatives of industries so that no more than one producer's term and one representative's term expires in June 2013.

House Bill No. 1020 - Main Research Center - House Action

	Executive Budget	House Changes	House Version
Main Research Center	$97,897,571	$495,000	$98,392,571
Total all funds	$97,897,571	$495,000	$98,392,571
Less estimated income	43,973,575	160,000	44,133,575
General fund	$53,923,996	$335,000	$54,258,996
FTE	329.26	3.00	332.26

Department 640 - Main Research Center - Detail of House Changes

	Adds Funding for SBARE Canola Initiative[1]	Adds Funding for SBARE State Data Center Initiative[2]	Total House Changes
Main Research Center	370,000	125,000	495,000
Total all funds	$370,000	$125,000	$495,000
Less estimated income	160,000	0	160,000
General fund	$210,000	$125,000	$335,000
FTE	2.00	1.00	3.00

[1] Funding is added for the SBARE initiative to enhance canola crop development efforts.

[2] Funding is added for the SBARE initiative relating to the State Data Center.

House Bill No. 1020 - Main Research Center - Senate Action

	Executive Budget	House Version	Senate Changes	Senate Version
Main Research Center	$97,897,571	$98,392,571	$315,000	$98,707,571
Total all funds	$97,897,571	$98,392,571	$315,000	$98,707,571
Less estimated income	43,973,575	44,133,575	0	44,133,575
General fund	$53,923,996	$54,258,996	$315,000	$54,573,996
FTE	329.26	332.26	1.00	333.26

Department 640 - Main Research Center - Detail of Senate Changes

	Removes Funding for the State Data Center[1]	Adds Funding for Grape Grower Research[2]	Adds Funding for Livestock Stewardship SBARE Initiative[3]	Total Senate Changes
Main Research Center	(125,000)	200,000	240,000	315,000
Total all funds	($125,000)	$200,000	$240,000	$315,000
Less estimated income	0	0	0	0
General fund	($125,000)	$200,000	$240,000	$315,000
FTE	(1.00)	0.00	2.00	1.00

[1] Funding and 1 FTE position added by the House for the SBARE initiative relating to the State Data Center is removed.

HB1020
Agriculture Extension
4/15/11
Attachment #1

Hawken, Kathy K.

From: Gebeke, Debra [Debra.Gebeke@ndsu.edu]
Sent: Friday, April 15, 2011 9:48 AM
To: Hawken, Kathy K.
Cc: Hauck, Duane; Coston, Donald; Grafton, Kenneth; rodneyh@ndsupernet.com
Subject: Hawken request
Attachments: 11state-s.brotherson-pf-hdfs[1].pdf; 11state-tichy-brotherson-hdfs[1].pdf; 10state-miller-schmaltz-hdfs[1].pdf

Representative Hawken,
As requested, here are additional items to describe the work of the PRC's.

PRC programs exist in Regions 2,4,5,7,8
The remaining three regions only have .15 FTE funding available (hard to hire a person for this amount) and additional funding is needed to put core programs into place, as well as to qualify for grants that require we serve the entire state.

Core programs include:
Offer evidence-based, prevention education programs to parents, teachers, service professionals who work directly with children

- Provide training to professionals who train others within their organizations (Train the Trainer programs)
- Deliver Child Abuse Prevention programs with DHS grant funds (contract—see annual outcome report for impacts in ND)
- Develop and/or deliver targeted programs including the 'Nurturing Parent' program for court-ordered parents, special needs parent education lessons for parents who have disabilities and need special training to raise their children.
- Partner with schools to meet their needs for Parental Involvement and community-based parent education
- Partner to provide divorce education courses recommended by judges

I have attached 3 Impact Reports to document our outcomes:

1. Documentation of impact for divorce education-Parents Forever program
2. Documentation of Nurturing Parent program—offered for court-ordered parents
3. Documentation of all child abuse prevention education programs offered in ND for all interested individuals (general public programming)

If you need anything else let me know. Thank you for all your efforts.
Deb
****

DEB GEBEKE, PhD
Assistant Director / Extension Family & Consumer Sciences

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NDSU NORTH DAKOTA STATE UNIVERSITY

HB1020
Agriculture & Extension
attachment #2
4/15/11

STATEMENT OF PURPOSE OF AMENDMENT:

House Bill No. 1020 - Funding Summary

	Executive Budget	House Version	Senate Changes	Senate Version
Transportation Institute				
Upper Great Plains Transp Institute	$24,069,961	$24,069,961		$24,069,961
Total all funds	$24,069,961	$24,069,961	$0	$24,069,961
Less estimated income	22,150,333	22,150,333	0	22,150,333
General fund	$1,919,628	$1,919,628	$0	$1,919,628
FTE	52.30	52.30	0.00	52.30
Branch Research Centers				
Dickinson Research Center	$5,588,562	$6,388,562		$6,388,562
Central Grasslands Research Center	2,865,847	2,865,847		2,865,847
Hettinger Research Center	3,373,175	3,373,175		3,373,175
Langdon Research Center	2,378,807	2,378,807		2,378,807
North Central Research Center	4,279,821	4,399,821		4,399,821
Williston Research Center	3,200,089	3,200,089		3,200,089
Carrington Research Center	7,126,488	9,351,488	(2,225,000)	7,126,488
Total all funds	$28,812,789	$31,957,789	($2,225,000)	$29,732,789
Less estimated income	14,877,581	15,797,581	0	15,797,581
General fund	$13,935,208	$16,160,208	($2,225,000)	$13,935,208
FTE	95.49	96.49	0.00	96.49
NDSU Extension Service				
Extension Service	$47,856,654	$47,606,654	($580,000)	$47,026,654
Soil Conservation Committee	887,800	887,800	100,000	987,800
Total all funds	$48,744,454	$48,494,454	($480,000)	$48,014,454
Less estimated income	23,128,810	23,128,810	0	23,128,810
General fund	$25,615,644	$25,365,644	($480,000)	$24,885,644
FTE	255.75	255.75	1.00	256.75
Northern Crops Institute				
Northern Crops Institute	$3,347,307	$3,347,307		$3,347,307
Total all funds	$3,347,307	$3,347,307	$0	$3,347,307
Less estimated income	1,654,725	1,654,725	0	1,654,725
General fund	$1,692,582	$1,692,582	$0	$1,692,582
FTE	11.00	11.00	0.00	11.00
Main Research Center				
Main Research Center	$97,897,571	$98,392,571	$315,000	$98,707,571
Total all funds	$97,897,571	$98,392,571	$315,000	$98,707,571
Less estimated income	43,973,575	44,133,575	0	44,133,575
General fund	$53,923,996	$54,258,996	$315,000	$54,573,996
FTE	329.26	332.26	1.00	333.26
Agronomy Seed Farm				
Agronomy Seed Farm	$1,435,168	$1,435,168		$1,435,168
Total all funds	$1,435,168	$1,435,168	$0	$1,435,168
Less estimated income	1,435,168	1,435,168	0	1,435,168
General fund	$0	$0	$0	$0
FTE	3.00	3.00	0.00	3.00

Bill Total				
Total all funds	$204,307,250	$207,697,250	($2,390,000)	$205,307,250
Less estimated income	107,220,192	108,300,192	0	108,300,192
General fund	$97,087,058	$99,397,058	($2,390,000)	$97,007,058
FTE	746.80	750.80	2.00	752.80

House Bill No. 1020 - Transportation Institute - House Action

The House did not change the executive budget recommendation for the Transportation Institute.

House Bill No. 1020 - Transportation Institute - Senate Action

The Senate did not change the House version for the Transportation Institute.

House Bill No. 1020 - Branch Research Centers - House Action

	Executive Budget	House Changes	House Version
Dickinson Research Center	$5,588,562	$800,000	$6,388,562
Central Grasslands Research Center	2,865,847		2,865,847
Hettinger Research Center	3,373,175		3,373,175
Langdon Research Center	2,378,807		2,378,807
North Central Research Center	4,279,821	120,000	4,399,821
Williston Research Center	3,200,089		3,200,089
Carrington Research Center	7,126,488	2,225,000	9,351,488
Total all funds	$28,812,789	$3,145,000	$31,957,789
Less estimated income	14,877,581	920,000	15,797,581
General fund	$13,935,208	$2,225,000	$16,160,208
FTE	95.49	1.00	96.49

Department 628 - Branch Research Centers - Detail of House Changes

	Adds Funding for SBARE Canola Initiative[1]	Adds Funding for Dickinson Research Center[2]	Adds Funding for Capital Project[3]	Total House Changes
Dickinson Research Center		800,000		800,000
Central Grasslands Research Center				
Hettinger Research Center				
Langdon Research Center				
North Central Research Center	120,000			120,000
Williston Research Center				
Carrington Research Center			2,225,000	2,225,000
Total all funds	$120,000	$800,000	$2,225,000	$3,145,000
Less estimated income	120,000	800,000	0	920,000
General fund	$0	$0	$2,225,000	$2,225,000
FTE	1.00	0.00	0.00	1.00

[1] Funding is added for a State Board of Agricultural Research and Education (SBARE) initiative to enhance canola crop development efforts.

[2] Funding is added for operations at the Dickinson Research Center from the permanent oil tax trust fund.

[3] Funding is added for the agronomy laboratory capital project at the Carrington Research Center.

HB 1020
Agriculture Extension
4/15/11
attachment # 3

NDSU Agriculture and University Extension
North Dakota Agricultural Experiment Station and NDSU Extension Service

General Fund —

Extension Service, Main and Branch Research Centers and Northern Crops Institute

Reconciliation of 2009-11 Original Appropriation to 2011-13 Executive Recommendation (HB 1020)

	(1) Extension Service	(2) Main Research Center	(3) Branch Research Centers	(4) NCI	(5) Total
2009-11 Original General Fund Appropriation	**$22,000,412**	**$60,217,151**	**$12,367,190**	**$1,439,221**	**$96,023,974**
2007-09 GF Carryover - Greenhouse		5,759,988			5,759,988
2009-11 Adjusted GF Appropriation	**22,000,412**	**65,977,139**	**12,367,190**	**1,439,221**	**101,783,962**
Less 2007-09 GF Carryover		(5,759,988)			(5,759,988)
Less 2009-11 One-time Appropriations		(700,000)			(700,000)
Less 2009-11 Capital Projects		(17,000,000)			(17,000,000)
2009-11 Adjusted Appropriation, Less Base Adjustments	**22,000,412**	**42,517,151**	**12,367,190**	**1,439,221**	**78,323,974**
Executive Recommendation Base Increases (Decreases):					
Cost to continue FY2011 salary increases	508,356	876,714	202,933	28,082	1,616,085
Decrease in 2011-13 Capital Bond Payments		(99)	(34)		(133)
Retirement rate correction - Pay plan	(693,796)	(1,471,495)	(293,692)	(60,075)	(2,519,058)
Compensation package (3% per year) and health insurance increases	1,530,672	2,586,453	618,811	85,992	4,821,928
Soil Conservation Increase	50,000				50,000
Gearing Up for Kindergarten	830,000				830,000
NCI and SBARE initiatives[1]	1,390,000	2,423,622	1,040,000	199,362	5,052,984
2011-13 Recommended Base General Fund Request	**3,615,232**	**4,415,195**	**1,568,018**	**253,361**	**9,851,806**
Executive Recommendation One-time Increases:					
2011-13 Capital Projects		6,991,650			6,991,650
2011-13 Recommended One-time Increases:		6,991,650			6,991,650
2009-11 Total Executive Recommendation - General Fund	**25,615,644**	**53,923,996**	**13,935,208**	**1,692,582**	**95,167,430**
Increase (Decrease) From 2009-11 Adjusted Appropriation, Less Base Adjustments	**$3,615,232**	**$11,406,845**	**$1,568,018**	**$253,361**	**$16,843,456**

[1] The following SBARE initiatives and NCI increases were funded (all base funding increases):

Extension - $450,000 Technician salary support; $690,000 Soil health & land management (3 FTE); $250,000 Livestock stewardship education (1 FTE) [Total requested for all Extension initiatives = $4 million]

Main Research - $173,622 Greenhouse utilities; $470,000 Soil productivity & land management (3 FTE); $100,000 Increased equipment; $410,000 Increase scientist operating funds to $10,000/scientist; $720,000 for 10 graduate assistants; $550,000 Additional office support (5 FTE) [Total requested for all Main REC = $6,848,622]

Branch REC's - $940,000 Soil productivity & land management (6 FTE); $100,000 Increase revolving equipment fund [Total requested for Branch REC's = $3,085,000]

NCI - $199,362 Funding source change for existing feed production center manager [Total requested = $244,670]

DETAILS: 2011-2013 Program and Infrastructure Needs as Ranked by SBARE

N.D. Agricultural Experiment Station

1. Greenhouse Utilities

$173,622 Total General Fund Increase

The NDAES is requesting funding for the additional utility costs associated with the second phase of greenhouse construction.

2. Enhancing Soil Productivity and Land Management for Future North Dakotans

$1,410,000 Total General Fund Increase

$570,000 salary and fringe benefits 1.0 FTE, Main Station – SNRS and 2.0 FTE research scientists (HREC, CREC)

$120,000 Operating

$720,000 salary and fringe benefits, 6.0 FTE, research support staff (HREC, CREC, WREC, CGREC, SNRS, ABEN)

North Dakota is blessed with many natural resources. Of these resources, our productive soils are one of the most important, and one that can be impacted positively to serve future North Dakotans. Managing soils has changed dramatically over the last 30 years. Efforts to reduce wind erosion brought about adoption of minimum tillage techniques that proved highly successful by retaining crop residue on the surface and reducing erosion. More recently, no-till systems have become very popular in many areas of the state. However, several areas of soil management have been neglected, resulting in the expansion of saline and sodic soils and declining soil fertility. Obtaining a better understanding of the soil microbial populations that impact (both positively and negatively) plant productivity is critically important to the farmers and ranchers in the state. Saline soils account for approximately 10.25 million acres in North Dakota, with sodicity affecting an additional 3.4 million acres. These affected soils reduce plant growth (both crop and range plants) by 25% even if symptoms are not evident. Lost productivity in the Red River Valley alone is estimated to range from $10-20 million annually; similar estimates exist for lost productivity in other areas of the state. What has not been estimated is the lost productivity of livestock production when pastures and rangeland are affected. Identifying ways to better manage lands for recreation, wildlife, grazing, and farming represents new opportunities for land-owners and managers to be successful. Better management practices that improve both productivity and overall economic activity are critical to allowing our state to remain competitive in this global economy.

Water and fertility issues also affect soil health and land management. Developing improved waste management systems and utilizing animal waste both play a major role in improving both soil fertility and soil tilth, but, if managed improperly, will affect both ground and surface water. Identifying better ways to manage livestock waste that enhances soil health is of critical importance to conserve and improve our soils and maintain productivity. Using appropriate crops or other plant species concurrently is being identified as a way to improve soil health in the region. Much of this information is anecdotal; appropriate research is needed to understand the mechanisms that may benefit our soils throughout the state.

3. Infrastructure (equipment, operating, graduate students, and office support staff)

$1,880,000 Total General Fund Increase
$200,000 equipment, REC and Main Station Revolving Equipment Funds
$410,000 Main Station operating funds allocation per SY
$720,000, 10.0 FTE, graduate research stipends (each ½ time) as pool, with preference given to ND students
$550,000, 5.0 FTE, Main Station office support staff

Revolving Equipment fund – In the 2007-09 Legislative Session, funds were made available to enhance the REC Revolving Equipment fund to $400,000/biennium and also provided $350,000 /biennium to establish a Revolving Equipment Fund for the Main Station departments. As research equipment costs continue to increase, and as additional requests are made to scientists for specific research activities, the ability of current funds to deal with the equipment needs and replacement is not possible. Equipment sharing exists, resulting in year-round use by many individuals. Equipment literally wears out, often before it becomes obsolete (which can occur in molecular genetics research in a few years).

Operating funds of $8,000/SY were provided in the 2005-07 Legislative session. Despite relatively low rates of inflation, research costs escalate at a much more rapid pace. Additional funds are requested to better allow our scientists to achieve their research objectives.

Graduate research assistantships are critical to research programs. The ability of students to focus research activities on projects important to the state results in enhanced efficiencies to each program. This is the least expensive labor pool that can be provided by the state to research programs; yet, students are highly intelligent and very motivated to carry out both the research and their studies. Also, graduate training is where students learn to be scientists – we are literally training the next generation of scientists that will be so important to our state and society.

Office support staff at the Main Station is critical to the function of department missions. The ability of each department (and the Main Station) to deal with ever-increasing compliance issues, grant proposals, and other budgetary issues greatly affects the opportunity of scientists to perform efficiently and effectively. Too often, scientists are forced to complete tasks that should be carried out by competent, skilled office staff simply because office staff cannot carry out additional tasks. Many departments have ratios approaching 7 faculty:1 office staff employee, a ratio that is not indicative of efficiency.

4. Improving the State's Economy by Enhancing Crop Development Efforts

$2,700,000 Total General Fund Increase
$300,000 1.0 FTE, research technician and operating for NDAWN;
$1,320,000 11.0 FTE, technical support staff : barley, corn, pulse, soybean, HRS wheat, winter wheat, cereal diseases, pulse diseases (Main Station), crop pathology (CREC), variety testing (WREC, LREC);
$490,000 3.0 FTE (breeder and technician, Main Station) and specialist at NCREC;
$410,000 Operating support
$180,000 1.0 FTE plant pathologist (WREC)

Agriculture is the leading sector of the State's economy. Cash "farm-gate" receipts of crop and livestock commodities account for 25% of the state's economy. Further, additional agricultural activities including, but not limited to, sale of products, manufacturing, transportation of commodities, professional services, and processing increases the percentage of this important component to more than 40%.

Developing improved crop varieties is fundamental to continued competitive success and profitability of farmers in the state. North Dakota has an extremely diverse crop mix; farmers grow more than 42 different crops in the state, and lead the nation in the production of more than 14 crop commodities. To accommodate the demand, the NDAES has developed over 13 plant breeding programs, with additional research programs that significantly aid in the development of improved varieties. When new varieties are released, they provide an immediate level of new wealth to farmers in the state. The release of the varieties Glenn, Faller, Steele-ND, and Howard Hard Red Spring wheat, generated more than $75 million (farm-gate income) in 2009, due to higher yield potential over existing varieties and improved quality characteristics. Glenn, when first released in 2006, had an overall economic impact of more than $350 million in its first year alone, due to its combination of high yield potential, very good scab resistance, and excellent quality characteristics. In addition, 90% of the ND durum wheat acreage is sown to NDSU varieties; the three most recent releases combined provided an additional $8 million in new wealth to the state in 2009. Other examples exist. In general, $1 invested in variety development generates over $200 in return to the state.

DETAILS: 2011-2013 Program and Infrastructure Needs as Ranked by SBARE

NDSU Extension Service

1. Infrastructure: Technical Support

$450,000 Total General Fund Increase
$150,000 salary support, no new FTE, technician shared by Plant Sciences and Plant Pathology
$150,000 salary support, no new FTE, technician, Entomology
$150,000 salary support, no new FTE, technician, Nutrition

NDSU Extension is one deep in most state specialist positions. While most states have multiple Extension specialists dealing with just one crop, NDSU's specialists are responsible for multiple crops. Extension specialists also undertake significant applied research to support their Extension work. Consequently, NDSU Extension specialists need technical support to help with applied research activities along with effective Extension program delivery.

2a. Soil Health and Land Management

$690,000 Total General Fund Increase
$210,000 salary and fringe benefits, 1.0 new FTE, salinity/sodicity specialist, Natural Resource Sciences
$360,000 salary and fringe benefits, 2.0 new FTEs, area specialists at the LREC and NCREC
$120,000 operating

Saline and sodic soils affect 25 percent (12.6 million acres) of North Dakota agricultural land. Salinity may affect up to 2 million acres of Red River Valley soils alone. These affected soils reduce both range and crop plant growth even if symptoms are not evident. Soil chemical, physical and biological properties underlie all crop decisions that agricultural producers make. Soil properties help prescribe which crops to grow, what rotation to use and the potential productivity. Plants absorb water or water evaporates from the soil leaving behind salts in the soil water that eventually produce levels toxic to vegetation. Poor drainage and/or poor irrigation water cause the salinity buildup. Years of higher-than-average rainfall leads to shallow ground water depth and movement of this water and its salts to the soil surface. Plants are less able to absorb water when there are high salt levels in the soil. Growth reductions occur as the salinity level in the soil increases.

Many land managers are considering expensive land modifications, such as tiling, to deal with this issue. Some are utilizing non-conventional cover crops as a means to improve soil health. NDSU Extension has a history of providing this type of support, however current staffing is not adequate to address this emerging need. More Extension soils and land management help is needed.

2b. Livestock Stewardship

$250,000 Total General Fund Increase
$210,000 salary and fringe benefits, 1.0 new FTE, Animal Sciences
$40,000 operating

Livestock production, which is very important to North Dakota's economy, is under increasing scrutiny, and producers face many challenges including rising production costs, increased accountability in the area of animal welfare/animal rights, biosecurity and environmental concerns. Animal welfare and humane animal handling are increasingly important to consumers and the livestock industry. Several states are passing laws intended to define the proper care and treatment of animals. Funding for this initiative would enable Extension to provide proactive education that would address potential concerns in these areas.

NDSU Extension Service

2011-13 Program and Infrastructure Needs as Ranked by SBARE (continued)

4a. Infrastructure: Information Technology

Situation: The Extension staff utilizes a variety of Web tools to work together on information to share with clients. Extension also has launched a national Web presence that provides a foundation for Extension educators to collaborate and educate nationally.

Need: Salary support for Agricultural Communication technician – $150,000

4b. Agricultural Entrepreneurship and Rural Business Transition

Situation: North Dakota's rural economy requires increased entrepreneurial activity plus the retention of existing businesses for continued growth. Many North Dakota farm, ranch and rural business owners are aging and contemplating retirement. Transition planning is a critical need to sustain local ownership and maintain continued existence of farms, ranches and rural businesses.

Need: Additional staffing in Agribusiness and Applied Economics – $500,000

5. Health, Wealth and Quality of Life for North Dakotans

Situation: Social capital investments yield economic savings and increased quality of life for North Dakotans. Recent statewide hearings concluded that parent and early childhood education is a significant need in the state. Research shows that the "Gearing Up for Kindergarten" program is just one example of a parenting program that can address this need effectively.

Need: Salary support for the Parent Resource Center network – $500,000

6. Identity-preserved and Specialty Agriculture

Situation: Specialty agricultural systems are gaining interest from food consumers. The concept of "local foods" also is gaining interest in many communities. And many producers are exploring the production and marketing of food grade crops that require strict identity-preservation protocols.

Need: Additional area staffing at DREC and another location to be determined – $440,000

7. Infrastructure: Operating

Situation: Nine Extension state staff, along with support staff, are located at three different office locations in Bismarck. This arrangement is inefficient in utilizing support staff, office equipment and work flow, and it provides very limited public visibility.

Need: Operating support for office rent – $80,000

Section 4-14.2-02, relating to the Northern Crops Council, is amended and reenacted to permit the council to stagger the terms of producers of northern crops and representatives of industries so that no more than one producer's term and one representative's term expires in June 2013.

House Bill No. 1020 - Main Research Center - House Action

	Executive Budget	House Changes	House Version
Main Research Center	$97,897,571	$495,000	$98,392,571
Total all funds	$97,897,571	$495,000	$98,392,571
Less estimated income	43,973,575	160,000	44,133,575
General fund	$53,923,996	$335,000	$54,258,996
FTE	329.26	3.00	332.26

Department 640 - Main Research Center - Detail of House Changes

	Adds Funding for SBARE Canola Initiative[1]	Adds Funding for SBARE State Data Center Initiative[2]	Total House Changes
Main Research Center	370,000	125,000	495,000
Total all funds	$370,000	$125,000	$495,000
Less estimated income	160,000	0	160,000
General fund	$210,000	$125,000	$335,000
FTE	2.00	1.00	3.00

[1] Funding is added for the SBARE initiative to enhance canola crop development efforts.

[2] Funding is added for the SBARE initiative relating to the State Data Center.

House Bill No. 1020 - Main Research Center - Senate Action

	Executive Budget	House Version	Senate Changes	Senate Version
Main Research Center	$97,897,571	$98,392,571	$315,000	$98,707,571
Total all funds	$97,897,571	$98,392,571	$315,000	$98,707,571
Less estimated income	43,973,575	44,133,575	0	44,133,575
General fund	$53,923,996	$54,258,996	$315,000	$54,573,996
FTE	329.26	332.26	1.00	333.26

Department 640 - Main Research Center - Detail of Senate Changes

	Removes Funding for the State Data Center[1]	Adds Funding for Grape Grower Research[2]	Adds Funding for Livestock Stewardship SBARE Initiative[3]	Total Senate Changes
Main Research Center	(125,000)	200,000	240,000	315,000
Total all funds	($125,000)	$200,000	$240,000	$315,000
Less estimated income	0	0	0	0
General fund	($125,000)	$200,000	$240,000	$315,000
FTE	(1.00)	0.00	2.00	1.00

[1] Funding and 1 FTE position added by the House for the SBARE initiative relating to the State Data Center is removed.

Bill Total				
Total all funds	$204,307,250	$207,697,250	($2,390,000)	$205,307,250
Less estimated income	107,220,192	108,300,192	0	108,300,192
General fund	$97,087,058	$99,397,058	($2,390,000)	$97,007,058
FTE	746.80	750.80	2.00	752.80

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House Bill No. 1020 - Branch Research Centers - House Action

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Central Grasslands Research Center	2,865,847		2,865,847
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Williston Research Center	3,200,089		3,200,089
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Less estimated income	14,877,581	920,000	15,797,581
General fund	$13,935,208	$2,225,000	$16,160,208
FTE	95.49	1.00	96.49

Department 628 - Branch Research Centers - Detail of House Changes

	Adds Funding for SBARE Canola Initiative[1]	Adds Funding for Dickinson Research Center[2]	Adds Funding for Capital Project[3]	Total House Changes
Dickinson Research Center		800,000		800,000
Central Grasslands Research Center				
Hettinger Research Center				
Langdon Research Center				
North Central Research Center	120,000			120,000
Williston Research Center				
Carrington Research Center			2,225,000	2,225,000
Total all funds	$120,000	$800,000	$2,225,000	$3,145,000
Less estimated income	120,000	800,000	0	920,000
General fund	$0	$0	$2,225,000	$2,225,000
FTE	1.00	0.00	0.00	1.00

[1] Funding is added for a State Board of Agricultural Research and Education (SBARE) initiative to enhance canola crop development efforts.

[2] Funding is added for operations at the Dickinson Research Center from the permanent oil tax trust fund.

[3] Funding is added for the agronomy laboratory capital project at the Carrington Research Center.