MICROFILM DIVIDER

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ROLL NUMBER

DESCRIPTION

1020

2007 HOUSE APPROPRIATIONS

HB 1020

2007 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. HB 1020

House Appropriations Committee
Education and Environment Division

☐ Check here for Conference Committee

Hearing Date: January 9, 2007

Recorder Job Number: 767

Committee Clerk Signature Shirley Banning

Minutes:

Chairman Wald opened the hearing on HB 1020, Upper Great Plains Transportation Institute

Gene Griffin, Director: (See Handout #1, HB 1020) Presented information regarding the program area, selected program accomplishments, and outreach. He itemized the research projects including highway planning, rail, transit and personal mobility, agricultural research and others listed on page #6 of the handout.

Chairman Wald: Is that typical of Land Grant Colleges?

Griffin: Yes a number of Land Grant Colleges have that program.

On page # 1, the newly created programs are listed in blue and the existing programs are listed in green.

Chairman Wald: Is the Master of military logistics a master's degree

Griffin: It is. We hope to grow it to 40 students per year.

Chairman Wald: Along that line, what do you do with troop movement?

Griffin: This is part of the program.

Representative Klein: Are these 17 students all funded by the military?

Griffin: Yes.

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The growth of the program was described as having regional and national impact. The future of UGPTI includes a strong emphasis on rural economic development. He testified in support of the 2007-2009 Executive Budget because it will provide necessary funding for administrative support to continue to grow and leverage the programs to provide the analysis, training, and leaders for the North Dakota transportation system.

Chairman Wald: On page 4 under rail, were you involved in that suit with the Public Service Commission on grain movement? Where is that at now?

Griffin: Yes, we were heavily involved in providing the necessary background for them to make a decision on whether they wanted to move ahead on it. It didn't go to trial but saved the producers of North Dakota a lot of money.

Representative Klein: The interim committee followed it and the threat with the lawsuit, the railroad reduced its rates and that will come up in some of the funding areas.

Griffin: The military logistics program is going extremely well.

In regard to he highlighted the new masters in transportation and is investigating using Fargo as an area of demonstration.

In energy, we need a need a building. Currently we are located in three different buildings on campus.

Chairman Wald: Is that in the bill request?

Griffin: Yes, I think it is.

Representative Klein: What do we have on the intermodal?

Griffin: We've been very involved, we've done a number of studies. This will take the cooperation of the railroad and the steamship lines.

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Representative Klein: I've been told if you are shipping the cost of shipping it in containers versus in box cars is about one-half the cost.

Griffin: I would be very skeptical of that. Volume and bulk are concerns.

Representative Klein: I am looking at your federal and special funds that are projected for the upcoming session, a major increase, yet your FTEs are going down. What is going on? Your federal funds are going up.

Griffin: I don't know. I looked at that myself and was surprised. That is not what we requested

Chairman Wald: Do you want to ask OMB for an answer?

Representative Gulleson: Is a lot included in your building fund that wouldn't be reflected in FTE?

Griffin: That would be part of it, yes. The bill allows us to hire additional people as needed.

Chairman Wald: What's the source of your special funds of $1.6 million?

Griffin: It could be a lot of things; funds we get from the Department of Transportation, the Transportation Foundation and others.

Roxanne Woeste, Legislative Council Representative, clarified that for 05 and 07, Upper Great Plains has the authority to adjust their FTE positions. up and down according to the State Board of Higher Education.

Other supporting testimony included **Neil Fischer**, representing the Wheat Commission and **Tim Horner,** North Dakota Department of Transportation.

Chairman Wald: Hearing no further testimony or questions, the hearing on HB 1020 is closed. I will assign this budget to **Representatives Monson, Klein and Gulleson**. The

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Forest Service, **Representatives Klein and Gulleson** and the higher ed bill 1003 in total, **me**,

Representatives Martinson, and Aarsvold.

Chancellor Eddie Dunn: Emphasized the importance of a trusting working relationship.

2007 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. HB 1020

House Appropriations Committee
Education and Environment Division

☐ Check here for Conference Committee

Hearing Date: January 15, 2007

Recorder Job Number: 1072

Committee Clerk Signature Shirley Brenning

Minutes:

Chairman Wald: opened the hearing on **HB 1020,** Bill #'s 641- Main Research Center; 628-Branch Research Center, 630-Extension Service, 638-Northern Crops Institute. He introduced Dr. Chapman- President, North Dakota State University.

Dr. Chapman: Testimony (See handout 1, pp. 1-2 HB 1020) emphasized requests for 4H and rural leadership. The Capital Campaign has a goal of raising $75 million in support of the institution, with over $86 million raised to date.

Jerry Effertz: Farmer and Rancher from McHenry County and Chair of the State Board of Agriculture Research and Education provided Testimony (SBARE). (See handouts 1, p. 3. and 1b of HB 1020). Century Code is very specific about SBAREs function, being responsible for the education, supervision and policy making associated with the Agriculture Experiment Station and the North Dakota University Extension Service. SBAREs priority list includes 21 programs.

Chairman Wald: On p. 27, where you show SBARE rankings, you have 13 and then soil conservation, would the other ones be in the main station.

Effertz: Within those rankings is more than one program. Our board wrestled with over 50 programs to try and prioritize them.

Chairman Wald: Is this the only one of its kind in country?

Effertz: We are the only board that has actually been given policy making decision by the legislature. We are the only ones in the nation that can present directly to you.

D.C. Coston: Vice President for Agriculture and University Extension, NDSU. Testimony (See handout 1, pp. 1-2 HB 1020) explained Grow 21, emphasizing a diverse, resilient economy, effective, efficient infrastructure and leadership.

Duane Hauck: Director, NDSU Extension Service. Testimony (See handout 1, pp. 3, 5, 8, 9, 13, 14-21, 7-11, 23, 25, and 26 of HB 1020) included the Agency description, mission statement, performance measures and future critical issues. He emphasized the importance of funding for rural leadership. Parenting education would provide a great service to the state

Ken Grafton: Director, North Dakota Agricultural Experiment Station. Testimony (See handout 1, pp. 23+, of HB 1020) included information on the main Research Station. WE grow 42 crops in the state and lead the nation in the production of 13 different crop commodities, number four in total crop diversity.

Chairman Wald: Malting barley, in addition to the administration moved to Williston, with a small $3,000 in Dickinson, $8,000 in Hettinger is it your intent to continue that, have the emphasis at Williston and I think we have a co-op program with Sidney, Montana station.

Grafton: Unless we hear otherwise from this body, we would continue that general fund support for the Williston research extension center.

Chairman Wald: What kind of input are you getting from the malting companies and the breweries? What is the future for increased malting barley production?

Grafton: Malting barley went from zero in Western ND, the Montana region, to 20 million bushels produced. Scab problems from the Eastern part of the state have moved barley west. Brewers have a tremendous appetite for malt and want production in Western ND.

The legislature added $325,165 for extraordinary repairs and identified $100,000 of that to construct a machine storage shed at the Williston research center, the Nesson Valley site. Page 25-26 describes the impacts of reinvesting in critical areas. The legislature provided $2.2 million in bonding authority for phase one of the greenhouse complexes at the main station. Contacts have been made to commodity groups to raise an additional $5 million.

Chairman Wald: There won't be any general fund money in that project.

Grafton: There's $2 million in bonding and the governor's budget phase two of the greenhouse complex. (See p. 26 of Handout #1)

The Agronomy Laboratory and Greenhouse (See p. 27 of Handout #1) NDSU is asking for authorization to carry over $1.69 million for the construction of this facility. Page 28 describes the facilities request. Page 29 describes the Research Greenhouse Complex – Phase 1.

Representative Klein: I am interested in how this ties in with the total.... Are you going to get rid of some of those old facilities you have in there as this progresses and at what stage is that going to be implemented so we don't have to lose a lot of energy?

Grafton: They are heated through propane but this is a short term solution to a short term problem.

Chairman Wald: What kind of a time frame are you looking at for both phases?

Grafton: We hope to begin construction in 2008 and finish in 18 months to 2 yrs.

Representative Klein: What would be your next phase? Those biosafety level two or would you finish down on the other end of the diagram?

Grafton: This is about a $14 million project; both could be finished at the same time. Pages 93 and 94, capital projects ask that the legislature provide the funding to allow us to finish phase one and two and save some construction costs by having a combined construction phase. On pages 95-96 ESBARE identified the number two priority as the headquarters for the Rocs, including the Carrington Extension Center: the headquarters for the Hettinger Extension Center; and on page 98, the addition at North Central Extension Center for $420,000. The number three ranked, included in the governors budget is $440,000. The final item on page 99 is the livestock research facility for $950,000 located at the main station in Fargo. This is not in the governor's budget.

Page 31 shows the heeds based budget, ranking as number one the equipment and operating pool. We ask to increase this to $355,000 to make it a total of $450,000 that would rotate among the research stations and the college of agriculture.

Chairman Wald: Would you say that the equipment and operating $940,000 is one of your more critical areas that have been neglected in past biennium. And I am looking at how you are dividing up the money.

Grafton: The money is divided up with three different centers receiving funds each biennium. A revolving fund rotates among the centers. There are seven centers that participate in this fund and we can only handle three centers per biennium because of the high cost of operating equipment.

Vice Chairman Monson: How much are you asking for and where will it go?

Grafton: $201,000 to be added to this revolving fund. Each will receive $35,700. This would allow us to add to the scientist fund.

Pages 32-35 lists No. 2 to No. 12 ranked projects.

Wade Moser: Supports the research project on p 99 of the handout even though it is not in the governor's budget, as well as the greenhouse.

Jerry Doan testified in support of 4H and is attributes to youth. Concern about the erosion in 4H. The rural leadership program fits well with 4H.

Craig Larson: Testimony (See handout #2 of HB 1020) supports HB 1020 because of the rural leadership program. He says leaders make a difference as they create positive change. Looking to the state for support as well as the private sector.

Chairman Wald: Are you finding it difficult to recruit and hire loan officers with rural leadership background?

Larson: Yes

Representative Gulleson requests Duane Hauck get a list of communities that have this program.

Julie Bergman: Testimony (See handout 3, 3a and 3b of HB 1020) supports rural leadership education and supports the continuation to work on donations, grants and tuition.

Carol Goodman, President of the Economic Development Association of North Dakota Testified (See handout 4 of HB 1020) in support NDSU Research and Extension...

Kris Ringwall: Director, Dickinson Research Extension Center, provided testimony (See handouts 1 and 5 of HB 1020) on the Needs-based Budget beginning on page 41 of the budget manual. He stated that there is a shortage of $100,000 in covering fixed costs and a need for support staff. Page 42, #2 shows the staff needs. Page 82 is the budget graph.

Representative Klein: Expand on what is going on in the biosecurity industry.

Ringwall: Fargo and Hettinger are able to bring to the field, biosecurity within an hour if needed.

Representative Klein: Has there been negative input from groups that are concerned about privacy?

Ringwall: Yes, more on ID than on biosecurity. We are enlightening the areas in terms of ID.

Blaine Schatz: Director, Director Research Center Extension Center, Testimony (See handout 1, pp. 51-53 of HB 1020) supports the funding needs of a waste management center for feed lots and other livestock operations. This includes swine, dairy and plant diseases.

Chairman Wald: What is the average livestock inventory?

Schatz: 680 head currently.

Chairman Wald: How many dollars are realized from the sale of livestock?

Schatz: We don't realize a profit.

Chairman Wald: On page 53 you refer to sclerotinia, what is that?

Schatz: It has affected sunflowers and other oil seeds.

Chairman Wald: Is there a chemical to treat the disease?

Schatz: There are, some herbicides are available to treat sunflower.

Representative Klein: How many counties do you serve?

Schatz: Officially, 15 counties

Representative Klein: Is irrigation research on going?

Schatz: Irrigation continues to be a prime research project.

Representative Klein: How many people are employed?

Schatz: Two FTE and summer temporary help.

Jay Fisher, Director, North Central Research Extension Center, Minot (See handout 1, pp. 55-56 of HB 1020) this research center is in the hub of agricultural facilities. Testified that he is

pleased with the executive support and hopes to continue projects that are critical to the agency.

Chairman Wald: What is the price tag on that machine storage facility?

Fisher: $300,000 to $400,000.

Chairman Wald: What can you tell us about importing canola from Canada?

Fisher: In the canola industry, ADM imports because there is not enough grown in the area to support their demands.

Representative Aarsvold: On the removal of the old seed house, what is the status of seed conditioning?

Fisher: A large amount is done here.

Representative Aarsvold: Is it adequate for your needs, currently

Fisher: No

Representative Aarsvold: Do you have trouble meeting the industry standard

Fisher: Passing inspection

Chairman Wald: What is the revenue for the sale of seed?

Fisher: $150,000 a year.

On page 57 the costs of producing canola is being reduced by practices such as straight cutting and shipping in containerized intermodal shipping.

Chairman Wald: What is your most critical need?

Fisher: The low levels of equipment funding, operational costs, overhead, labor, and hiring help have doubled.

Timothy Faller, Asst. Director of the North Dakota Agricultural Experiment Station, standing in for Jerry Bergman, Director of the Williston Research Center. (See handout 1, pp. 59-61of HB

1020 and Handout # 6). Provided testimony in support the research centers accomplishments in leadership to dryland agriculture in North West North Dakota. The partnership with Montana State University and Eastern Agricultural Research Center has enhanced irrigation research.

Chairman Wald: Are malting barley companies and breweries contracting with farmers?

Faller: Yes.

Representative Aarsvold: How many bushels of feed barley would be aside of malting grade?

Faller: It is valuable as a feed component.

Representative Aarsvold: Is it about five bushels of feed to every bushel of malting barley?

Faller: I will find that information.

There are also horticultural issues. What is needed most is an irrigation scientist. We also need to provide operating money for potato processing.

Representative Klein: Is there a relationship of sharing stored equipment with Nesson Valley?

Faller: Yes

Representative Klein: Question 2, originally there was a plan to use water from the lake. Is there a plan for a well when the lake water is low?

Faller: Yes

Paul Nygren, Director Central Grasslands Research Extension Center. Provided testimony regarding the center at Streeter's impacts (See handout 1, p.65 HB 1020 and Handout # 7 and 7a). Added testimony on carbon sequestration along with the Farmers Union project.

Representative Klein: You are working on improving water infiltration. Does that increase crop output and how do you do that?

Nygren: It measures how quickly water infiltrates into the soil, for example, rain fall events on saturated soil.

Representative Klein: Have you come up with a method of infiltration for poor condition soil?

Nygren: That is an ongoing project.

Representative Aarsvold: What is the impact of retiling?

Nygren: That is also an ongoing study.

Chairman Wald: Closed the hearing on HB1020 until 2:00 pm.

2007 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. HB1020

House Appropriations Committee
Education and Environment Division

☐ Check here for Conference Committee

Hearing Date: January 15, 2007

Recorder Job Number: 1126

Committee Clerk Signature Shirley Bannong

Minutes:

Chairman Wald: called the continuation of the hearing of the Extension Service portion, Of HB 1020 to order.

Mr. Paul Thomas (See attached handout 14-HB 1020) a farmer from Velva, testified on behalf of the Pulse Growers.

Chairman Wald: Explain paragraph 2 page 2, the need to privatize Canadian varieties.

Thomas: A lot of the varieties in our area have come from Canada and the CDC and their public research has sold their varieties to private companies to disperse and those companies have chosen to first make them available to their Canadian producers. Then they brought those varieties into the US and charge a large royalty.

Mr. Randy Melhoff (See pp.67-69 of attached Biennial Budget HB 1020) Director of the Langdon Research Extension Center, testified that there is a need for animal agriculture.

Representative Klein: Lake Region and you have a partnership in the Center for Excellence. Could you explain that more?

Melhoff: Some GPS companies

Representative Klein: Are there any patent rights involved.

Melhoff: Not really.

Representative Klein: Does the person staffing the office work for you or Lake Region?

Melhoff: Salary and benefits are paid for by Lake Region State College and me supply office space and supplies.

Chairman Wald: Now you have only crops, would you expand to livestock

Melhoff: We are more interested in taking the waste from this confined space and finding ways to utilize the nitrogen for fertilizer.

Chairman Wald: As you move into crops such as canola, peas and beans, I am assuming that is displacing wheat acreage.

Melhoff: In Cavalier County, we are the top producer of canola and we are also the top producer of wheat in ND. We are leaving the barley because of disease problems.

Chairman Wald: Are you doing any research in no till or minimum till.

Melhoff: Yes, there is a site that has no till and it has been active for many years

Mr. Chris Schauer (See pp.71-73 of attached Biennial Budget HB 1020) Director of the Hettinger Research Extension Center, testified that the labor force deficiencies continue to force constraints on scientists and staff

Representative Klein: What is the number of counties served?

Shauer: We serve 6 counties.

Representative Klein: What is the acreage and what is the sheep herd size?

Schauer: There are 1,000 acres. About 1,000 ewes that we use for grazing purposes.

Tom Teigen (See pp.75 of attached Biennial Budget HB 1020) Director of the Streeter Agronomy Seed Farm, testified that critical issues facing the ASF are a continued demand for foundation-grade seed, favorable weather and a good supply of varieties that are in demand by the industry. Good prices are essential, as well.

Representative Klein: Can you give some input into the on going discussion about Round-up ready seeds. Have you gotten involved?

Teigen: Yes, biotech crops are more accepted

Representative Klein: You've been working with outfits and doing research with them.

Teigen: Yes

Chairman Wald: We will take up Northern Crops. You are always my favorite part of the program. It is amazing what you have you have done at NCI.

Dr. Patricia Berglund: (See Handout # 15 NCI Northern Crops Institute Biennial Budget No. 638 of HB 1020) Director of Northern Crops Institute testified in support of the Executive Budget as stated on p. 4. The accomplishments of the institute on pp. 5-8 were explained. The budget details are listed on p. 9, showing a salary increase for FY 07.

Representative Klein: Your salary increase request is 4% rather than 5% and 5% as with higher ed. Is that what we will find for all agriculture programs?

Dr. Berglund: Yes, that is correct. You will find 4% in the budget book for all of ag.

Representative Klein: Did you get some one time deferred maintenance funds in the governor's budget

Chairman Wald: Do you have a list of the revenue from donations from states and also what you have received from commodity groups?

Dr. Berglund: These figures will be provided (See Handout # 15a)

Dan Wiltse: (See Handout # 17 of HB 1020) serving on the Northern Crops Council, testified in favor of the board budgets request.

Eric Bartsch: (See Handout # 18 of HB 1020) Executive Director of the Northern Pulse Growers Association, testified in favor of the HB 1020. Pulse crops are pea, lentil and chickpea, hoping to identify quality of the crops produced

Dana Bond – Clearwater Communications spoke in support of the funding request, as a former 4Hr and 4H Ambassador.

Annette Olson – Miss North Dakota and farmer 4Hr, spoke in favor of the funding request.

Dan Wogsland: (See Handout # 19 of HB 1020) Executive Director of the North Dakota Grain Growers Association spoke in favor of the funding of the greenhouses at NDSU.

Tom Christianson – Chairman of the Soil Conservation Committee asked for support of technical assistance.

Chairman Wald: Question to Dr Berglund. On p. 8, it shows that you hosted teams from Ghana and other countries. How do you communicate?

Dr. Berglund: Most of the people speak English. We still have translators or someone from their group is translating.

Chairman Wald: How much time do you or your staff members go overseas? How do you invite them to get here and how do they get the information about NCI?

Dr. Berglund: We do go overseas but they come for courses or are invited through our partnerships. They come to us and we sell more.

Representative Klein: On the deferred maintenance, you have no requests. Everything is up to snuff.

Dr. Berglund: We are part of NDSU and we have limited space and we have created space that was taking up three stories.

Representative Klein: Some time ago you had some equipment and no place to put it. Did you find a place for it?

Dr. Berglund. Yes, we sold it to the ND State Mill.

Vice Chairman Monson That money is going to show up as income in your budget

Dr. Grafton: It will show up as income and it is going to help fund the construction of the greenhouses.

Richard Faught, President of the Soil Conservation Districts, spoke in support of soil conservation district practices.

Representative Aarsvold: You lost your executive director for the soil Conservation Service. Who was the person replacing him?

.Faught: Yes, Mr. Tom Hanson has been appointed and hired.

Mike Beltz: (See Handout # 20 of HB 1020), farmer and vice chairman of the ND Ag Coalition testified in favor of HB 1020.

Chairman Wald: Hearing no further comment or questions, the meeting is adjourned.

2007 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. HB 1020

House Appropriations Committee
Education and Environment Division

☐ Check here for Conference Committee

Hearing Date: January 22, 2007

Recorder Job Number: 1577

Committee Clerk Signature Shirley Branning

Minutes:

Chairman Wald: Called the meeting to order on the discussion of the amendment to HB 1020.

Representative Klein, you have reviewed amendments 0105 and 0106.

Representative Klein: That's the $950,000 that was added in (See P 99 of HB 1020 Biennial Budget) for each center at NDSU. It is not as high a priority as their research guy.

Chairman Wald: When you look at the increase in their budget, I don't know if we want to spend close to another $1 million.

Representative Klein: They did get the $9 million greenhouse

Representative Aarsvold: I understand that the positions are out of the question.

Representative Klein: And that is why we added this.

Representative Hawken: Where was it decided that we aren't taking up FTEs?

Representative Aarsvold: I'm just picking up conversation here this afternoon.

Chairman Wald: I just gathered that FTEs are going to be hard to come by... When you look at the bill and the percentage of increase, I have a problem supporting that $950,000.

Representative Hawken: My question was about the FTEs. Has it been decided somewhere we aren't doing any FTEs?

Chairman Wald: The overall growth in the governor's budget, new FTEs are an issue.

Representative Hawken: We don't prioritize where there is money brought in.

Vice Chairman Monson: The sentiment of the whole committee over here is that anytime we come forth where we are adding FTEs, it will be rammed up our throats.

Representative Hawken: So when Human Services comes up with 25, do we do the same thing?

Representative Hawken: I think Mr. Grafton said the research scientists FTEs are 40%, and 50% is research dollars that are brought in.

Representative Gulleson: We did ask for FTEs from the Senate amendment, so we will get to that.

Representative Klein: Continue discussing the amendments, p. 5, and line 8. that changed from 86 to 87 for the main research center. Line 10, total general fund appropriation changed from 45 to 46. Line 27, the grand total went from 75 to 76. Really not a major jump there. Line 29, went from 183 to 184. Down below, the summary actions, the Upper Great Plains Transportation Institute stayed as the executive budget had it. The Branch Research Stations, we added that 950 and had to change all those numbers.

Representative Aarsvold: I toured the facilities and they do have a nice feeding facility now but it is small. That may be part of the issue for needing new construction.

Representative Gulleson: It does tie in with the enhanced mission to try to have larger animal production along with the growth of renewable energy. To try to help make that transition.

Representative Klein: Main research station on P. 2

Chairman Wald: So the only change you're making to the branch centers at this point is the $325,000 at North Central.

Representative Klein: That's right.

Chairman Wald: Let's move on to Extension Service.

Representative Klein: Extension Service, we added one 4H person, they asked for two and the leadership one they had funded before out of their hide. And that includes Kathy's amendment to the parent research center. They testified that they really wanted it; we did take one of their 4H positions away.

Chairman Wald: But I thought we were going to lower that to $177,000

Representative Gulleson: That includes travel and a big part of that is they're out and about.

Representative Klein: That is kind of a state-wide position, they have to get out on the road quite a bit.

Representative Hawken: I think the total there is $375,000

Chairman Wald: We said they have $200,000 for general fund for one year for one FTE.

Representative Klein: We are not contemplating anything for salary and benefits here, are we? Is travel separate?

Dan Wolf: Legislative Council stated in this case it is a little different because they're single line items, so, what we had added was just what they had requested. There could be some operating costs in with that, too.

Representative Klein: Maybe we did reduce that because there should be three things in that, one for 4H, the leadership and the $392 for the master Gardner. Are they all in there down below?

Representative Gulleson: They detail it out on the bottom of p. 3

Representative Klein: $175, 200, $398 for the parenting resource and $200,000 for a master Gardner program. A total of $793,000 if you look on the bottom of p. 3 which adds two FTE's.

Chairman Wald: And those are all optional positions, they were not part of the base budget.

Representative Klein: That's correct.

Vice Chairman Monson: Well, I doubt very much that we will sell item #3, the parenting resource center next door.

Representative Hawken: Representative Svedjan was the one who asked me to have the amendments drawn up. This is a project that goes along with things we have mandated over the last four sessions. Through our varying bills we mandate that there are classes for divorced state wide. We mandate that there are classes for parents with drug kinds of things, we don't supply em; this is an attempt to supply em, in eight different places for this much money.

Vice Chairman Monson: Is there any money in the Human Service budget?

Representative Hawken: This money could actually be in the Human Service budget, they prefer it to be here. The law part of it is in the Human Services section. They reason they wanted it here is because extension was the most efficient way to deal with these kinds of things because they do such a good job for so little money. This amount of money allows them to go for grant funds, less money does not.

Vice Chairman Monson: Didn't you say there are five currently and eight needed and this would fund the other three.

Representative Hawken: It funds all of them. It adds three to the mix but funds all of them. But it allows them to get the federal grant money.

Representative Klein: You've probably been pestered to add those soil conservation committee dollars but we didn't add that. That is $630,000 and it comes right out of the general fund, the governor didn't have it in his budget. Going to the back, Northern Crops

Institute, they did not get any extra ordinary maintenance money, they hadn't asked for it and they want to renovate that facility so we added the $95,000 they had requested for the main research station. That is one time. They do a commendable job.

Then $425,000 that got added to, ah.....

Vice Chairman Monson: Industrial hemp, roughly $50,000 is needed to redo the study, a white paper that was done about 10 years ago, now that they have the history up in Canada of raising industrial hemp for the last 10 years, NDSU should do another white paper for them to update the study to study problems, profitability, and so on. $50,000 is what we gave them 10 years ago to do this study and they did not spend that much so these two are lumped together, Not separated out – the other part of that $350,000 industrial hemp research would be one time contract using one time money because studies shouldn't be needed for a long time. This includes the possibility to get the seed collection research and contracting with the guy from Indiana to do the research here in ND. Because we are the only state in the nation that has the laws on the books that allows it. No FTE because it is a contracted service.

Representative Klein: That $325 was your proposal.

Vice Chairman Monson: All are lumped together, no separate funds for white paper. The $100,000 is something different. Together they make $425,000.

Representative Klein: We added that for extra ordinary maintenance. When we looked at the percentage increases from all of the facilities they sat there at the very lowest, they were funded at 13.5% of their actual deferred maintenance. We said they are way behind on deferred maintenance.

Chairman Wald: Don, would you walk us through sections 5, 6, 7 and 8?

Don Wolf: Reviewed Sections # 5, 6,7, and 8 on p. 6. Stating that section #8 would become renumbered. All sections are standard language.

Vice Chairman Monson: On section #9, you refer to that as research authorized in section #8. That looks more like it is just the white paper. It doesn't talk about contracting. Is that everything that I had alluded to originally. It is research involving seed. They already have the ability to import seed from Canada. This research involves seed that is in cold storage in Indiana that needs to be grown out to keep it viable.

Representative Aarsvold: You want the language specific enough so that he will be the guy that will do the work?

Chairman Wald: If you change the wording from "University" to "entity" would that help?

Don Wolf: One thing that I could recommend is to just remove reference in section #8 and change it to procurement of seed necessary to conduct the research.

Vice Chairman Monson: I don't think it is proper to reference section #8 in section #9. Reword it to say: The main research center may contract with any other entity for the procurement of hemp seed necessary to do research on industrial hemp.

Chairman Wald: Get together with Don to make those changes, let's do it quickly.

Representative Klein: Do you think we'll have any problems selling the $100,000 looking at deferred maintenance after looking at the percentage sheet?

Chairman Wald: Let's set this aside. Go into subcommittees. Adjourned as full committee.

2007 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. HB 1020

House Appropriations Committee
Education and Environment Division

☐ Check here for Conference Committee

Hearing Date: February 1, 2007

Recorder Job Number: 2501

Committee Clerk Signature

Minutes:

Chairman Wald: called the meeting to order on HB 1020, amendment .0113.

Representative Klein: Asked the sub committee to look at page 2, section 7 of the amendment to HB 1020. He explained the changes as underlined having to do with vehicles used at the agronomy seed farm and branch stations. He drew attention to sections 9-11 and moved to the budget changes on pages 3-5. The footnotes on page 5 were explained as well as the other changes on page 6.

Representative Klein: made the motion to further adopt the amendments.

Representative Hawken: Seconded the motion.

The motion to adopt the amendment .0113 was made by a unanimous voice vote.

Representative Klein: moved to further amend the amendment .0111 on Fiscal note #10.

The motion to further amend was made by a unanimous voice vote.

Chairman Wald: The chair will entertain a motion to "**Do Pass as Amended**" on HB1020.

Representative Aarsvold: So move.

Representative Klein: Second

Vote: Yes 6, No 0, Absent 1 **Carrier: Representative Klein**

Meetiing adjourned

2007 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. HB 1020

House Appropriations Committee
Education and Environment Division

☐ Check here for Conference Committee

Hearing Date: February 2, 2007

Recorder Job Number: 2678

Committee Clerk Signature Shirley Branning

Minutes:

Representative Martinson: Move to reconsider action by which we passed out HB 1020.

Seconded by **Vice Chairman Monson.**

Chairman Wald: Called for discussion, hearing non, a voice vote was taken and passed unanimously.

Representative Klein: :Reviewed the one time funding part to amendment 0116.

Vote: Yes 6, No 0, Absent 1 **Carrier : Representative Klein**:

Chairman Wald: Asked for a motion on HB 1020 Amendment 0116.

Representative Klein: Move a **Do Pass as Amended**

Seconded by **Vice Chairman Monson**

Chairman Wald: Called for a final vote tally on HB 1020 Amendment 0116.

Vote: Yes 6, No 0, Absent 1 **Carrier : Representative Klein**:

Meeting adjourned on HB 1020 - 0116

2007 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. HB 1020

House Appropriations Committee

☐ Check here for Conference Committee

Hearing Date: February 8, 2007

Recorder Job Number: 3251

Committee Clerk Signature Mary N. Ward

Minutes:

Chm. Svedjan opened the hearing on HB 1020.

Rep. Klein distributed amendment .0116 (Attachment A).

Rep. Klein motioned to adopt amendment .0116. Rep. Wald seconded the motion.

Rep. Klein reviewed the budget green sheets for Departments 627 – Upper Great Plains Transportation Institute, 628 – Branch Research Centers, 630 – NDSU Extension Service, 638 – Northern Crops Institute, 640 – NDSU Main Research Center, and 649 – Agronomy Seed Farm.

Rep. Monson spoke on Section 9 – Industrial Hemp Production Study (Ref. 7:09). He explained that this is two studies in one. About ten years ago, NDSU did a white paper on industrial hemp production. The results showed that industrial hemp was a viable crop. There is ten years of history in Canada and we felt it was time to add a white paper study since we are closer in doing something with industrial hemp. We had this bill with a $50,000 appropriation in it, but it was suggested that this study be combined with a study requested of NDSU a couple of years ago that has yet to be done.

We also have an opportunity, request from a man who was doing industrial hemp studies in Indiana for the past twenty years. He could be contracted by NDSU to do a study in which he could bring his seed and years of research to NDSU and it would be much less costly.

Rep. Carlisle: You're growing ten acres?

Rep. Monson: I have a license but no DEA approval. This man from Wisconsin, has a license and DEA approval so he could come to NDSU to do research in a greenhouse versus having to put up razor wire around a field.

Rep. Kerzman: Re: Section 12 of amendment – Hemp research $325,000 – that's got to be quite a building.

Rep. Klein: I took a lot of that off a facility they had in Williston.

Rep. Klein discussed the House changes to the budgets.

Rep. Hawken discussed the Parenting Resource Centers (Ref. 17:46).

Rep. Wald discussed the Dickinson Experiment Station (Ref. 21:05). The revenue from the Dickenson Experiment Station dropped in half and will continue to drop. It will be $800,000 short at a minimum. So we included $800,000 of operating expenses to that station.

Rep. Carlisle: How much did the Governor increase the budget before your Committee worked on it?

Rep. Klein: An increase of 15 percent over the 05-07 budget.

Rep. Carlisle: And your Committee added another $1.7 million to the 15 percent?

Rep. Klein: A lot of what we added deals with research.

Rep. Bellew: The total increase in this budget is $3.388 million, correct?

Rep. Klein: That's correct, if you take the one-time.

Rep. Klein: It's important to understand the difference between the various stations. FTEs are often funded out of partly funded out of extension, research – it's not straightforward.

Rep. Kempenich: I'm probably not going to support these amendments. When you start spending money that at some point is going to disappear and then want to come in and add instead of adjusting, I can't support this amendment.

Rep. Carlson: What did the 15 percent amount to in real dollars?

Don Wolf, Legislative Council: If you compare the executive budget to 2005-07, the general fund increased by $19.3 million. In this budget it adds another $3.3 million.

Rep. Carlson: Total new FTES?

Rep. Wald: 3.6 total.

Rep. Skarphol: How many FTEs were added overall?

Mr. Wolf: Five.

Rep. Skarphol: On page 3 of the amendment, what were the dollar amounts for the Carrington, Hettinger, and North Central Research Center office addition projects that total $1 million?

Mr. Wolf: Carrington -- $465,000, Hettinger -- $222,750, and North Central -- $420,000.

Rep. Skarphol: There's over $1 million going into one research center? What is Section 11 and what does it amount to? I'm making a point here. Sometimes it gets to the point that we are ignoring things that we've already acquired. I'd like to make an amendment but I can't do it in good conscience. There needs to be some distribution of resources. If we do the right thing, then we can get by for less money that the Governor proposed and still do a lot of the good things that need to be done.

Rep. Klein: The $2 million for the greenhouse at NDSU is being carried forward. They did not come up with the match.

The motion to adopt amendment .0116 to HB 1020 carried by a voice vote.

Rep. Wald motioned a Do Pass as Amended. Rep. Klein seconded the motion. The motion carried by a roll call vote of 14 ayes, 10 nays and 0 absent and not voting. Rep. Klein was designated to carry the bill.

2007 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. HB 1020

House Appropriations Committee

☐ Check here for Conference Committee

Hearing Date: February 9, 2007

Recorder Job Number: 3266

Committee Clerk Signature Kelly N. Ament

Minutes:

Chm. Svedjan called the meeting to order.

Rep. Klein motioned to reconsider HB 1020. Rep. Carlson seconded the motion.

Rep. Martinson: What is the reason for this reconsideration?

Chm. Svedjan: There has been no mistake in the bill. The bill is going to be sent back to section for further amendment.

Rep. Martinson: What are those amendments?

Chm. Svedjan: I don't know. I could refer that to the Chairman of the section.

Rep. Wald: The consensus was we didn't reduce the budget, there was a substantial increase in the executive recommendation and we added to it. Some people felt very uncomfortable with the amount of money put into it, so we're going to take it back to committee and make some adjustments and bring it back to the Full Committee when we get the amendments.

Rep. Martinson: My question would be, the next time we pass a budget out and some of us don't like it, then the day are we going to be allowed to bring that back for reconsideration also?

Chm. Svedjan: I think we can always reconsider bills.

Rep. Nelson: I don't think there's any doubt what's taking place here. Is it our charge not to exceed the Governor's recommendation in these budgets so we don't make this mistake again?

Chm. Svedjan: I can't say to any of you that the charge is to get under the Governor's budget. It's been requested that they take another look at the amendments that were made and adopted yesterday and I felt it was appropriate for the section to take that second look.

The motion to reconsider HB 1020 carried by a voice vote.

2007 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. HB 1020

House Appropriations Committee
Education and Environment Division

☐ Check here for Conference Committee

Hearing Date: February 9, 2007

Recorder Job Number: 3285

Committee Clerk Signature Shirley Banning

Minutes:

Chairman Wald: Called the meeting to order to consider a draft to amend Amendment HB 1020-0116. The discussion began by looking at Section 12 of the amendment on page 3. Changes in dollar amounts were made on the one-time funding, reducing the total amount by $1.2m.

Total FTE was reduced from 20 to 18. The dollar amount could be transferred from the oil trust fund.

Representative Martinson: Moved to draft an amendment to amendment HB 1020 0116.

Representative Hawken: Seconded the motion.

Further discussion included funding for the Williston station.

Chairman Wald: Requested that Legislative Council draft an amendement to amendment HB 1020-0116 to be reviewed during the next week. Clerk was asked to call a roll call vote.

Vote: Yes 7, No 0, Absent 0 **Carrier: Representative Klein:**

2007 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. HB 1020

House Appropriations Committee
Education and Environment Division

☐ Check here for Conference Committee

Hearing Date: February 12, 2007

Recorder Job Number: 3365

Committee Clerk Signature Shirley Brenning

Minutes:

Chairman Wald: Called the meeting to order on amendment 0117 of HB 1020.

Representative Klein: We have amendments 0117; there is no change in the language of Sections 7, 9, 10 or 11. On Section 12, page 3 of the amendment, he reviewed the reductions in each of the items identified in the section.

Representative Aarsvold: We are amending the previous…

Representative Klein: We are amending…..The big hit came at the Main Research Station. We have taken out $1,869,006 from that fund.

Representative Hawken: How was the decision made to take out $1.4 or 1.2m out of the base budget? We did this without the best thought process because it affects the whole state of North Dakota. At the very least, I would like that added back into the base budget.

Vice Chairman Monson: The 48.3% increase was unacceptable to the full committee.

Representative Klein: We had to do some cutting and we hit it at random. The Transportation Institute, we took that $23,884 out of there. Added $150,000 at Williston. At the Branches 1.6 FTE was added. He further reviewed the footnotes to the amendment. He questioned the figure 450, less estimated income in Main Research Station, p. 6.

Tammy Dolan: OMB Analyst explained that there is a change because of the funds of operating.... It was previously from the general fund and increased the special funds, totals a net change of $450,000.

Representative Klein: Continued with his explanation of the amendment to include other changes on p. 7.

Vice Chairman Monson: Questioned the Greenhouse, phase 1 has not been built. And the reason being, you have not raised the $5m in donations.

Dr. Ken Grafton, Dean and Director, North Dakota Agricultural Experiment Station, Stated that the goal to raise $5m from commodity groups has not yet been achieved. If phase II were to go, they would build both in 2008. He stated that they would be contacting such groups as Burlington Northern, General Mills, Conagra and others to support the project. He responded to questions that he addressed in his January 15, 2007 presentation to this sub-committee.

Representative Hawken: What will happen if these cuts are made in the research station?

Dr. Grafton: The impact of a $1.4m cut would mean that I would seriously have to cut salaries and fringe benefits. A $1.4m cut would mean that all searches for new staff would be cut; it would eliminate 7-9 faculty positions or 16-18 support staff, or a combination of 10-14 positions.

Representative Hawken: What kind of research would we not be doing?

Dr. Grafton: Very good researchers are being lured away from NDSU. Positions in plant and animal science are being interviewed by other institutions. It would be devastating, eliminating entire programs.

Vice Chairman Monson: You have asked for an increase of $2.17m for this coming biennium. The governor's budget has $7.38m, can you explain why you asked for $2.17m and got $7.3M?

Dolan: The request numbers do not include any optional requests. When the governor's budget was formed it added the top three priorities, the request does not include those optional requests.

Chairman Wald: This biennium it was your legislative intent to raise $5m. Why are you pushing the panic button to raise these funds when you had 1 ½ yrs.

Dr. Grafton: Explained that the Capital Campaign took up the fund raising resources and it was up to a volunteer group to raise the funds. All money has to be in place to legally begin construction. We can continue to raise money until we move forward.

Vice Chairman Monson: It would be 2008 before you can begin and raise the $5m

Chairman Wald: Expressed his appreciation to Dr. Grafton for appearing, assured him that his request will be taken under consideration and closed the meeting due to a previously scheduled meeting requiring the sub committee's presence.

2007 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. HB 1020

House Appropriations Committee
Education and Environment Division

☐ Check here for Conference Committee

Hearing Date: February 13, 2007

Recorder Job Number: 3433

Committee Clerk Signature Shirley Banning

Minutes:

Chairman Wald: Called the meeting to order on amendment 0117 HB 1020. He reviewed the one-time funding on page 3 of the amendment and stated that these changes are about all we can do.

Representative Gulleson: Suggested that the Phase 2 of main research center greenhouse project be retitled to the "Greenhouse project". It seems that Phase 1 will never happen, that they are more interested in phase 2, that group of greenhouses to give them authority to continue to raise the funds along with the money we give them so they can move forward with that project.

Vice Chairman Monson "I agree with that. I think what we should do is word it so that the Greenhouse Project keep all the money and the authority of what we said last time. Last time we said raise $5m and we gave them $2m of state funding authority which we then carried forward. And give them $7m this time, so altogether it would be $14m total between what we did last biennium.

Representative Klein: What would that allow them to do? Since they have raised $2m, why don't we let them start on the project now? Give them flexibility.

Representative Gulleson: They are going to find that those biosafety labs, they are going to have more success moving that and that is the phase 2.

I move to further amend this bill to remove reference to "phases" and call it the "Greenhouse project", including language that allows them to continue to raise the local match and move the project forward.

Representative Aarsvold: We are talking $7m plus $2m in general fund dollars plus $2m special funds and they could use it now should they choose.

Vice Chairman Monson: Second.

Representative Hawken: Made a motion to reinstate the $1.4m that would support the main station.

Chairman Wald: So the motion is, on the main research station, to reinstate $1.4m that we removed in amendment 0116.

Representative Klein: Second

Vice Chairman Monson: Requests a quick tally to see if the budget is reduced or increased.

Chairman Wald: Called for a voice vote, motion carried.

Representative Martinson: Moved to put the money for the Horticulturist for western North Dakota back into the budget.

Chairman Wald: For the same amount, 2.50 and 1 FTE

Representative Klein: Second

Representative Hawken: We could still put back the money we took out for 4H and leadership and be under the budget.

Representative Martinson: I will change my motion to include that if the Second will agree

Representative Klein: I agree. So what you are saying is, the 4H would be funded at 175 and the leadership would be funded at 200.

Representative Hawken: Moved that we add in a horticulturist for the western part of the state and we reinstate $25,000 on the 4H and $50,000 on the leadership position.

Representative Klein: Second

Chairman Wald: The motion is to further amend, adding $25,000 on the 4H project and $50,000 on the rural leadership and reinstate the horticulturist for $250,000 and I FTE.

Vice Chairman Monson: I don't know if this will politically fly for us.

Chairman Wald: Introduced two friends who visited from Saskatchewan, Canada.

Asked for a show of hands for those who would support the amendment and seeing a five to two vote, motion carries. We have adopted three more amendments to the bill and we have the bill as amended before us, if there is no further discussion, Clerk will call the roll. A do Pass as amended.

Vote: 7 yes, 0 no, 0 absent. **Carrier: Representative Klein**

2007 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. HB 1020

House Appropriations Committee

☐ Check here for Conference Committee

Hearing Date: February 14, 2007

Recorder Job Number: 3497

Committee Clerk Signature Holly N. Ward

Minutes:

Chm. Svedjan called the House Appropriations Committee to order.

Rep. Klein distributed and reviewed amendment .0119 (Attachment A).

Rep. Klein motioned to adopt amendment .0119. Rep. Wald seconded the motion.

Rep. Klein: We made a major change to Section 11. This continues the exemption for North Central – they can carry their money on. But we've given the main research center the availability to use funding we had provided them last session ($2 million), to get started right away.

Rep. Klein reviewed the changes to one-time funding and footnotes on p. 7 of the amendment.

Rep. Kempenich: Re: $750,000 operating pool, how can it be one-time?

Rep. Klein: Because originally we had taken it out of the general fund. We're now taking it out of the permanent oil tax trust fund.

Chm. Svedjan: What qualifies it ($750,000) as one-time spending?

Rep. Klein: Right now we don't know what the changes are going to be in the oil income at Dickinson. Rep. Klein deferred the question to Rep. Wald.

Rep. Wald: There are three revenue sources outside the general fund and special funds to experiment stations. In the case of Dickinson, they are the only one that had land that has oil and gas production. There has been a drop in production – their revenue has dropped by approximately $800,000 in a biennium. Should it be one-time? I don't know. It should probably be ongoing.

Chm. Svedjan: But what qualifies it as one-time? The way I read this is, you've categorized this as one-time. So this will have to be looked at again in two years.

Rep. Klein: That's correct.

Chm. Svedjan: It's one-time based on the fact that it has to be reviewed in two years.

Rep. Skarphol: It should be reflected as one-time funding because of the fact that the wells got sold and may be reworked and the money may be available again. I think it's an appropriate thing to do in that case.

Rep. Monson: On p. 7, footnote 3 of the amendment, it says it adds $750,000 from the permanent oil tax trust fund to the Main Research Station for an operating pool to be allocated as determined by the director of the Agricultural Experiment Station. The one that will probably be shorted will be Dickinson, but if there's more need elsewhere that money can be used in other places.

Rep. Wald: The intent is that the Dickinson station has first dibs on the $750,000.

End of audio.

Rep. Carlisle: Is this above the Governor's budget?

Rep. Klein: A little above – about $200,000 total.

Rep. Skarphol discussed Sections 9 and 10 of the amendment and posed the question of whether any unexpended funds could be used for biomass research.

There is discussion among the Committee members regarding the $300,000.

Rep. Monson expressed his concern that if you tell them you can spend $300,000, the cost will all of a sudden be $300,000.

Rep. Klein motioned a Do Pass as Amended by .0119. Rep. Wald seconded the motion. The motion carried by a roll call vote of 22 ayes, 1 nay and 1 absent and not voting and the amendment was adopted. Rep. Klein was designated to carry the bill.

1/22/07
Handout #1

78020.0105
Title.
Fiscal No. 4

Prepared by the Legislative Council staff for
House Appropriations - Education and Environment
January 19, 2007

PROPOSED AMENDMENTS TO HOUSE BILL NO. 1020

Page 3, line 22, replace "11,242,066" with "12,192,066"

Page 3, line 24, replace "14,643,555" with "15,593,555"

Page 4, line 10, replace "19,282,626" with "20,232,626"

Page 4, line 12, replace "28,804,999" with "29,754,999"

Page 5, line 8, replace "86,698,779" with "87,648,779"

Page 5, line 10, replace "45,437,622" with "46,387,622"

Page 5, line 27, replace "75,894,813" with "76,844,813"

Page 5, line 29, replace "183,703,753" with "184,653,753"

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	$27,479,547	$0	$27,479,547
Less estimated income	26,255,663		26,255,663
General fund	$1,223,884	$0	$1,223,884
Branch Research Centers			
Total all funds	$24,374,515	$0	$24,374,515
Less estimated income	13,716,431		13,716,431
General fund	$10,658,084	$0	$10,658,084
NDSU Extension Service			
Total all funds	$41,322,455	$0	$41,322,455
Less estimated income	23,865,624		23,865,624
General fund	$17,456,831	$0	$17,456,831
Northern Crops Institute			
Total all funds	$2,598,111	$0	$2,598,111
Less estimated income	1,479,719		1,479,719
General fund	$1,118,392	$0	$1,118,392
Main Research Station			
Total all funds	$86,698,779	$950,000	$87,648,779
Less estimated income	41,261,157		41,261,157
General fund	$45,437,622	$950,000	$46,387,622
Agronomy Seed Farm			
Total all funds	$1,230,346	$0	$1,230,346
Less estimated income	1,230,346		1,230,346
General fund	$0	$0	$0
Bill Total			
Total all funds	$183,703,753	$950,000	$184,653,753
Less estimated income	107,808,940		107,808,940
General fund	$75,894,813	$950,000	$76,844,813

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

	EXECUTIVE BUDGET	HOUSE CHANGES	HOUSE VERSION
Main Research Station	$86,698,779	$950,000	$87,648,779
Total all funds	$86,698,779	$950,000	$87,648,779
Less estimated income	41,261,157		41,261,157
General fund	$45,437,622	$950,000	$46,387,622
FTE	348.08	0.00	348.08

Dept. 640 - Main Research Station - Detail of House Changes

	ADDS FUNDING FOR BEEF RESEARCH FACILITY [1]	TOTAL HOUSE CHANGES
Main Research Station	$950,000	$950,000
Total all funds	$950,000	$950,000
Less estimated income		
General fund	$950,000	$950,000
FTE	0.00	0.00

[1] Adds $950,000 from the general fund for a beef research facility project.

1/24/07
Handout # 2

78020.0106
Title.
Fiscal No. 3

Prepared by the Legislative Council staff for
House Appropriations - Education and
Environment
January 19, 2007

PROPOSED AMENDMENTS TO HOUSE BILL NO. 1020

Page 1, line 3, after "funds" insert "; to provide for a study; to authorize hemp seed procurement; to provide an exemption"

Page 3, line 5, replace "3,149,956" with "3,942,956"

Page 3, line 7, replace "2,942,718" with "3,735,718"

Page 3, line 9, replace "2,098,685" with "2,891,685"

Page 3, line 12, replace "695,428" with "790,428"

Page 3, line 14, replace "207,631" with "302,631"

Page 3, line 22, replace "11,242,066" with "11,667,066"

Page 3, line 24, replace "14,643,555" with "15,068,555"

Page 3, line 31, replace "(405,724)" with "(80,724)"

Page 4, line 3, replace "2,868,839" with "3,193,839"

Page 4, line 5, replace "2,271,775" with "2,596,775"

Page 4, line 10, replace "19,282,626" with "20,920,626"

Page 4, line 12, replace "28,804,999" with "30,442,999"

Page 4, line 22, replace "40,692,455" with "41,485,455"

Page 4, line 24, replace "41,322,455" with "42,115,455"

Page 4, line 26, replace "17,456,831" with "18,249,831"

Page 4, line 29, replace "2,598,111" with "2,693,111"

Page 4, line 31, replace "1,118,392" with "1,213,392"

Page 5, line 8, replace "86,698,779" with "87,123,779"

Page 5, line 10, replace "45,437,622" with "45,862,622"

Page 5, line 17, replace "3,524,816" with "3,849,816"

Page 5, line 20, replace "24,374,515" with "24,699,515"

Page 5, line 22, replace "10,658,084" with "10,983,084"

Page 5, line 27, replace "75,894,813" with "77,532,813"

Page 5, line 29, replace "183,703,753" with "185,341,753"

Page 6, after line 21, insert:

"**SECTION 8. INDUSTRIAL HEMP PRODUCTION - STUDY.** The main research center shall study industrial hemp production in North Dakota, including the latest available research and data regarding soils and growing conditions, seed availability, harvest methods, market economies, environmental benefit, law enforcement concerns, and issues of concern to producers from other countries. The North Dakota agricultural experiment station shall present a report to the legislative council by August 1, 2008.

SECTION 9. HEMP SEED - PROCUREMENT - AUTHORIZATION. The main research center may contract with any other university for the procurement of hemp seed necessary to the research authorized in section 8 of this Act.

SECTION 10. EXEMPTION. The amounts appropriated for phase one of the research greenhouse complex project, as contained in subdivision 4 of section 3 and for the north central research center laboratory and greenhouse project, as contained in subdivision 5 of section 3 of chapter 48 of the 2005 Session Laws are not subject to the provision 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, 2009, and ending June 30, 2011."

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	$27,479,547	$0	$27,479,547
Less estimated income	26,255,663		26,255,663
General fund	$1,223,884	$0	$1,223,884
Branch Research Centers			
Total all funds	$24,374,515	$325,000	$24,699,515
Less estimated income	13,716,431		13,716,431
General fund	$10,658,084	$325,000	$10,983,084
NDSU Extension Service			
Total all funds	$41,322,455	$793,000	$42,115,455
Less estimated income	23,865,624		23,865,624
General fund	$17,456,831	$793,000	$18,249,831
Northern Crops Institute			
Total all funds	$2,598,111	$95,000	$2,693,111
Less estimated income	1,479,719		1,479,719
General fund	$1,118,392	$95,000	$1,213,392
Main Research Station			
Total all funds	$86,698,779	$425,000	$87,123,779
Less estimated income	41,261,157		41,261,157
General fund	$45,437,622	$425,000	$45,862,622
Agronomy Seed Farm			
Total all funds	$1,230,346	$0	$1,230,346
Less estimated income	1,230,346		1,230,346
General fund	$0	$0	$0
Bill Total			
Total all funds	$183,703,753	$1,638,000	$185,341,753
Less estimated income	107,808,940		107,808,940
General fund	$75,894,813	$1,638,000	$77,532,813

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

	EXECUTIVE BUDGET	HOUSE CHANGES	HOUSE VERSION
Dickinson Research Center	$6,077,229		$6,077,229
Central Grasslands Research Center	2,267,506		2,267,506
Hettinger Research Center	2,441,212		2,441,212
Langdon Research Center	1,697,293		1,697,293
North Central Research Center	3,524,816	$325,000	3,849,816
Williston Research Center	2,884,369		2,884,369
Carrington Research Center	5,482,090		5,482,090
Total all funds	$24,374,515	$325,000	$24,699,515
Less estimated income	13,716,431		13,716,431
General fund	$10,658,084	$325,000	$10,983,084
FTE	95.26	0.00	95.26

Dept. 628 - Branch Research Centers - Detail of House Changes

	ADDS FUNDING FOR EQUIPMENT STORAGE FACILITY [1]	TOTAL HOUSE CHANGES
Dickinson Research Center		
Central Grasslands Research Center		
Hettinger Research Center		
Langdon Research Center		
North Central Research Center	$325,000	$325,000
Williston Research Center		
Carrington Research Center		
Total all funds	$325,000	$325,000
Less estimated income		
General fund	$325,000	$325,000
FTE	0.00	0.00

[1] Adds $325,000 from the general fund for an equipment storage facility at the North Central Research Center.

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

	EXECUTIVE BUDGET	HOUSE CHANGES	HOUSE VERSION
Extension Service	$40,692,455	$793,000	$41,485,455
Soil Conservation Committee	630,000		630,000
Total all funds	$41,322,455	$793,000	$42,115,455
Less estimated income	23,865,624		23,865,624
General fund	$17,456,831	$793,000	$18,249,831
FTE	257.86	2.00	259.86

Dept. 630 - NDSU Extension Service - Detail of House Changes

	ADDS FUNDING FOR A 4-H YOUTH DEVELOPMENT POSITION [1]	ADDS FUNDING FOR A RURAL LEADERSHIP POSITION [2]	ADDS FUNDING FOR PARENTING RESOURCE CENTERS [3]	ADDS FUNDING FOR JUNIOR MASTER GARDENER PROGRAM [4]	TOTAL HOUSE CHANGES
Extension Service	$175,000	$200,000	$398,000	$20,000	$793,000
Soil Conservation Committee					
Total all funds	$175,000	$200,000	$398,000	$20,000	$793,000
Less estimated income					
General fund	$175,000	$200,000	$398,000	$20,000	$793,000
FTE	1.00	1.00	0.00	0.00	2.00

[1] Adds $175,000 from the general fund for 1 FTE 4-H youth development position at the NDSU Extension Service.

[2] Adds $200,000 from the general fund for 1 FTE rural leadership position at the NDSU Extension Service.

[3] Adds $398,000 for the NDSU Extension Service to provide parenting resource centers statewide. The centers provide resources for urban and rural communities relating to such topics as parents working multiple jobs, divorce, and difficulty in rearing children.

4 Adds $20,000 from the general fund to the NDSU Extension Service for the junior master gardener program.

House Bill No. 1020 - Northern Crops Institute - House Action

	EXECUTIVE BUDGET	HOUSE CHANGES	HOUSE VERSION
Northern Crops Institute	$2,598,111	$95,000	$2,693,111
Total all funds	$2,598,111	$95,000	$2,693,111
Less estimated income	1,479,719		1,479,719
General fund	$1,118,392	$95,000	$1,213,392
FTE	11.20	0.00	11.20

Dept. 638 - Northern Crops Institute - Detail of House Changes

	ADDS FUNDING FOR ONE-TIME EXTRAORDINARY REPAIRS [1]	TOTAL HOUSE CHANGES
Northern Crops Institute	$95,000	$95,000
Total all funds	$95,000	$95,000
Less estimated income		
General fund	$95,000	$95,000
FTE	0.00	0.00

1 Adds $95,000 from the general fund for extraordinary repairs relating to a one-time renovation project at the Northern Crops Institute.

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

	EXECUTIVE BUDGET	HOUSE CHANGES	HOUSE VERSION
Main Research Station	$86,698,779	$425,000	$87,123,779
Total all funds	$86,698,779	$425,000	$87,123,779
Less estimated income	41,261,157		41,261,157
General fund	$45,437,622	$425,000	$45,862,622
FTE	348.08	0.00	348.08

Dept. 640 - Main Research Station - Detail of House Changes

	INCREASES FUNDING FOR DEFERRED MAINTENANCE POOL [1]	ADDS FUNDING FOR INDUSTRIAL HEMP RESEARCH [2]	TOTAL HOUSE CHANGES
Main Research Station	$100,000	$325,000	$425,000
Total all funds	$100,000	$325,000	$425,000
Less estimated income			
General fund	$100,000	$325,000	$425,000
FTE	0.00	0.00	0.00

1 Increases funding from the general fund from $100,000 to $200,000 for a deferred maintenance pool to address needs at the Main Research Center and branch research centers.

2 Adds funding from the general fund for conducting industrial hemp research at the Main Research Center.

House Bill No. 1020 - Other Changes - House Action

This amendment provides for a study of industrial hemp and authorizes the Main Research Center to contract with any other university for the procurement of hemp seed necessary to conduct research.

This amendment provides carryover authority for Phase 1 of the research greenhouse complex at the Main Research Center funded with bond proceeds ($2 million) and gifts, grants, and donations ($5 million) and for the North Central Research Center laboratory and greenhouse project funded with bond proceeds ($440,000) and gifts, grants, and donations ($1,250,000). These projects were authorized by the 2005 Legislative Assembly.

78020.0113
Title.
Fiscal No. 12

Prepared by the Legislative Council staff for
House Appropriations - Education and
Environment
January 31, 2007

PROPOSED AMENDMENTS TO HOUSE BILL NO. 1020

Page 1, line 3, after "farm" insert"; to amend and reenact section 24-02-03.3 of the North Dakota Century Code, relating to the central motor pool" and after "funds" insert "; to provide for a study; to authorize hemp seed procurement; to provide an exemption"

Page 3, line 5, replace "3,149,956" with "4,312,956"

Page 3, line 7, replace "2,942,718" with "4,105,718"

Page 3, line 9, replace "2,098,685" with "3,261,685"

Page 3, line 12, replace "695,428" with "790,428"

Page 3, line 14, replace "207,631" with "302,631"

Page 3, line 22, replace "11,242,066" with "12,651,066"

Page 3, line 24, replace "14,643,555" with "16,052,555"

Page 3, line 31, replace "(405,724)" with "(80,724)"

Page 4, line 2, replace "1,223,750" with "1,319,750"

Page 4, line 3, replace "2,868,839" with "3,289,839"

Page 4, line 5, replace "2,271,775" with "2,692,775"

Page 4, line 10, replace "19,282,626" with "22,370,626"

Page 4, line 12, replace "28,804,999" with "31,892,999"

Page 4, line 22, replace "40,692,455" with "41,855,455"

Page 4, line 24, replace "41,322,455" with "42,485,455"

Page 4, line 26, replace "17,456,831" with "18,619,831"

Page 4, line 29, replace "2,598,111" with "2,693,111"

Page 4, line 31, replace "1,118,392" with "1,213,392"

Page 5, line 8, replace "86,698,779" with "88,107,779"

Page 5, line 10, replace "45,437,622" with "46,846,622"

Page 5, line 17, replace "3,524,816" with "3,849,816"

Page 5, line 19, replace "5,482,090" with "5,578,090"

Page 5, line 20, replace "24,374,515" with "24,795,515"

Page 5, line 22, replace "10,658,084" with "11,079,084"

Page 5, line 27, replace "75,894,813" with "78,982,813"

Page 5, line 29, replace "183,703,753" with "186,791,753"

Page 6, after line 16, insert:

"**SECTION 7. AMENDMENT.** Section 24-02-03.3 of the North Dakota Century Code is amended and reenacted as follows:

24-02-03.3. Central management system for all state-owned licensed motor vehicles.

1. The director shall establish within the department a central vehicle management system to regulate the operation, maintenance, and management of all motor vehicles owned or leased by the state subject to registration under chapters 39-04 and 39-05. Upon the request of a state agency and an agreement between the agency and director for the use of the motor vehicle-related equipment, the director may purchase or lease motor vehicle-related equipment and include that equipment within the system. The director shall provide a uniform method of documenting the use and cost of operation of motor vehicles and motor vehicle-related equipment in the system. The director shall advise the director of the office of management and budget as to the need to acquire or dispose of system motor vehicles. The specifications for highway patrol vehicles to be acquired may be set by the highway patrol superintendent. Every state agency, institution, department, board, bureau, and commission unless exempted by the director must use the system. At the request of the director of the North Dakota agricultural experiment station, certain vehicles used in farming operations at the agronomy seed farm and branch research centers shall be exempt from the requirements of this section. However, an agency, institution, department, board, bureau, or commission may authorize the use of an employee's personal motor vehicle pursuant to subsection 4 of section 54-06-09.

2. The director may enter into an agreement with a state employee who has a disability requiring a specially-equipped vehicle to pay a mileage rate greater than the rate established in section 54-06-09 for the employee's use of the employee's specially-equipped motor vehicle while conducting state business. The rate must be based on the rate provided in section 54-06-09, increased by the actual cost per mile caused by the special equipment, and may not exceed the cost associated with the special equipment expressed as the new value plus the depreciated fair market value in eight years divided by two, divided by twenty thousand miles.

3. Each entity required to use the system shall submit records of the operation of each vehicle as directed by the director."

Page 6, after line 21, insert:

"**SECTION 9. INDUSTRIAL HEMP PRODUCTION - STUDY.** The main research center shall study industrial hemp production in North Dakota, including the latest available research and data regarding soils and growing conditions, seed

availability, harvest methods, market economies, environmental benefit, law enforcement concerns, and issues of concern to producers from other countries. The agricultural experiment station shall present a report to the legislative council by August 1, 2008.

SECTION 10. HEMP SEED - PROCUREMENT - AUTHORIZATION. The main research center may contract with other entities for the procurement of hemp seed and to conduct industrial hemp research.

SECTION 11. EXEMPTION. The amounts appropriated for phase one of the research greenhouse complex project, as contained in subdivision 4 of section 3 of this Act and for the north central research center laboratory and greenhouse project, as contained in subdivision 5 of section 3 of chapter 48 of the 2005 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, 2007, and ending June 30, 2009."

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	$27,479,547	$0	$27,479,547
Less estimated income	26,255,663		26,255,663
General fund	$1,223,884	$0	$1,223,884
Branch Research Centers			
Total all funds	$24,374,515	$421,000	$24,795,515
Less estimated income	13,716,431		13,716,431
General fund	$10,658,084	$421,000	$11,079,084
NDSU Extension Service			
Total all funds	$41,322,455	$1,163,000	$42,485,455
Less estimated income	23,865,624		23,865,624
General fund	$17,456,831	$1,163,000	$18,619,831
Northern Crops Institute			
Total all funds	$2,598,111	$95,000	$2,693,111
Less estimated income	1,479,719		1,479,719
General fund	$1,118,392	$95,000	$1,213,392
Main Research Station			
Total all funds	$86,698,779	$1,409,000	$88,107,779
Less estimated income	41,261,157		41,261,157
General fund	$45,437,622	$1,409,000	$46,846,622
Agronomy Seed Farm			
Total all funds	$1,230,346	$0	$1,230,346
Less estimated income	1,230,346		1,230,346
General fund	$0	$0	$0
Bill Total			
Total all funds	$183,703,753	$3,088,000	$186,791,753
Less estimated income	107,808,940		107,808,940
General fund	$75,894,813	$3,088,000	$78,982,813

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

	EXECUTIVE BUDGET	HOUSE CHANGES	HOUSE VERSION
Dickinson Research Center	$6,077,229		$6,077,229
Central Grasslands Research Center	2,267,506		2,267,506
Hettinger Research Center	2,441,212		2,441,212
Langdon Research Center	1,697,293		1,697,293
North Central Research Center	3,524,816	$325,000	3,849,816
Williston Research Center	2,884,369		2,884,369
Carrington Research Center	5,482,090	96,000	5,578,090
Total all funds	$24,374,515	$421,000	$24,795,515
Less estimated income	13,716,431		13,716,431
General fund	$10,658,084	$421,000	$11,079,084

FTE	95.26	0.60	95.86

Dept. 628 - Branch Research Centers - Detail of House Changes

	ADDS FUNDING FOR EQUIPMENT STORAGE FACILITY [1]	ADDS FUNDING FOR WASTE MANAGEMENT SYSTEMS POSITION [2]	TOTAL HOUSE CHANGES
Dickinson Research Center			
Central Grasslands Research Center			
Hettinger Research Center			
Langdon Research Center			
North Central Research Center	$325,000		$325,000
Williston Research Center			
Carrington Research Center		$96,000	96,000
Total all funds	$325,000	$96,000	$421,000
Less estimated income			
General fund	$325,000	$96,000	$421,000
FTE	0.00	0.60	0.60

1 Adds $325,000 from the general fund for an equipment storage facility at the North Central Research Center.

2 Adds funding from the general fund for a .6 FTE position and related salaries and wages ($84,000) and operating costs ($12,000) for the waste management systems program at the Carrington Research Center.

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

	EXECUTIVE BUDGET	HOUSE CHANGES	HOUSE VERSION
Extension Service	$40,692,455	$1,163,000	$41,855,455
Soil Conservation Committee	630,000		630,000
Total all funds	$41,322,455	$1,163,000	$42,485,455
Less estimated income	23,865,624		23,865,624
General fund	$17,456,831	$1,163,000	$18,619,831
FTE	257.86	3.60	261.46

Dept. 630 - NDSU Extension Service - Detail of House Changes

	ADDS FUNDING FOR A 4-H YOUTH DEVELOPMENT POSITION [1]	ADDS FUNDING FOR A RURAL LEADERSHIP POSITION [2]	ADDS FUNDING FOR PARENTING RESOURCE CENTERS [3]	ADDS FUNDING FOR JUNIOR MASTER GARDENER PROGRAM [4]	ADDS FUNDING FOR WASTE MANAGEMENT SYSTEMS POSITION [5]	ADDS FUNDING FOR WINE RESEARCH POSITION [6]
Extension Service	$175,000	$200,000	$398,000	$20,000	$120,000	$250,000
Soil Conservation Committee						
Total all funds	$175,000	$200,000	$398,000	$20,000	$120,000	$250,000
Less estimated income						
General fund	$175,000	$200,000	$398,000	$20,000	$120,000	$250,000
FTE	1.00	1.00	0.00	0.00	0.60	1.00

	TOTAL HOUSE CHANGES
Extension Service	$1,163,000
Soil Conservation Committee	
Total all funds	$1,163,000
Less estimated income	
General fund	$1,163,000
FTE	3.60

1 Adds $175,000 from the general fund for 1 FTE 4-H youth development position at the NDSU Extension Service.

2 Adds $200,000 from the general fund for 1 FTE rural leadership position at the NDSU Extension Service.

3 Adds $398,000 for the NDSU Extension Service to provide parenting resource centers statewide. The centers provide resources for urban and rural communities relating to such topics as parents working multiple jobs, divorce, and difficulty in rearing children.

[4] Adds $20,000 from the general fund to the NDSU Extension Service for the junior master gardener program.

[5] Adds funding from the general fund for a .6 FTE position and related salaries and wages ($96,000) and operating costs ($24,000) for the waste management systems program.

[6] Adds funding from the general fund for research on North Dakota wine production.

House Bill No. 1020 - Northern Crops Institute - House Action

	EXECUTIVE BUDGET	HOUSE CHANGES	HOUSE VERSION
Northern Crops Institute	$2,598,111	$95,000	$2,693,111
Total all funds	$2,598,111	$95,000	$2,693,111
Less estimated income	1,479,719		1,479,719
General fund	$1,118,392	$95,000	$1,213,392
FTE	11.20	0.00	11.20

Dept. 638 - Northern Crops Institute - Detail of House Changes

	ADDS FUNDING FOR ONE-TIME EXTRAORDINARY REPAIRS [1]	TOTAL HOUSE CHANGES
Northern Crops Institute	$95,000	$95,000
Total all funds	$95,000	$95,000
Less estimated income		
General fund	$95,000	$95,000
FTE	0.00	0.00

[1] Adds $95,000 from the general fund for extraordinary repairs relating to a one-time renovation project at the Northern Crops Institute.

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

	EXECUTIVE BUDGET	HOUSE CHANGES	HOUSE VERSION
Main Research Station	$86,698,779	$1,409,000	$88,107,779
Total all funds	$86,698,779	$1,409,000	$88,107,779
Less estimated income	41,261,157		41,261,157
General fund	$45,437,622	$1,409,000	$46,846,622
FTE	348.08	0.80	348.88

Dept. 640 - Main Research Station - Detail of House Changes

	INCREASES FUNDING FOR DEFERRED MAINTENANCE POOL [1]	ADDS FUNDING FOR INDUSTRIAL HEMP RESEARCH [2]	ADDS FUNDING FOR WASTE MANAGEMENT SYSTEMS POSITION [3]	ADDS FUNDING FOR OPERATING POOL [4]	TOTAL HOUSE CHANGES
Main Research Station	$100,000	$325,000	$184,000	$800,000	$1,409,000
Total all funds	$100,000	$325,000	$184,000	$800,000	$1,409,000
Less estimated income					
General fund	$100,000	$325,000	$184,000	$800,000	$1,409,000
FTE	0.00	0.00	0.80	0.00	0.80

[1] Increases funding from the general fund from $100,000 to $200,000 for a deferred maintenance pool to address needs at the Main Research Center and branch research centers.

[2] Adds funding from the general fund for conducting industrial hemp research at the Main Research Center.

[3] Adds funding from the general fund for a .8 FTE position and related salaries and wages ($160,000) and operating costs ($24,000) for the waste management systems program.

[4] Adds $800,000 from the general fund to the Main Research Station for an operating pool to be allocated as determined by the director of the Agricultural Experiment Station. In determining the allocation, the director of the Agricultural Experiment Station is to consider decreases in oil revenues at the Dickinson Research Center.

House Bill No. 1020 - Other Changes - House Action

This amendment provides for a study of industrial hemp and authorizes the Main Research Center to contract with any other university for the procurement of hemp seed necessary to conduct research.

This amendment provides carryover authority for Phase 1 of the research greenhouse complex at the Main Research Center funded with bond proceeds ($2 million) and gifts, grants, and donations ($5 million) and for the North Central Research Center laboratory and greenhouse project funded with bond proceeds ($440,000) and gifts, grants, and donations ($1,250,000). These projects were authorized by the 2005 Legislative Assembly.

Amends North Dakota Century Code Section 24-02-03.3 to exempt certain vehicles used in farming operations at the Agronomy Seed Farm and branch research centers from state motor pool requirements.

Date: 2/1/07
Roll Call Vote #:

2007 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. HB1020 .0113

House **Appropriations Education and Environment Division** Committee

☑ Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken Do pass on Bill 1020 as amended

Motion Made By Rep. Aarsvold Seconded By Rep. Klein

Representatives	Yes	No	Representatives	Yes	No
Chairman Wald:	✓		Representative Aarsvold:	✓	
Vice Chairman Monson	✓		Representative Gulleson		
Representative Hawken:	✓				
Representative Klein:	✓				
Representative Martinson:	✓				

Total (Yes) 6 No 0

Absent 1

Floor Assignment Rep. Klein

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

bill as amended.

Date: 2/2/07
Roll Call Vote #: 1

#1

2007 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. HB1020

House **Appropriations Education and Environment Division** Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken Do pass ~~as~~ adopt 0116

Motion Made By Rep Klein Seconded By Rep Martenson

Representatives	Yes	No	Representatives	Yes	No
Chairman Wald:	✓		Representative Aarsvold:	✓	
Vice Chairman Monson	✓		Representative Gulleson		
Representative Hawken:	✓				
Representative Klein:	✓				
Representative Martinson:	✓				

Total (Yes) 6 No 0

Absent 1

Floor Assignment Representative Klein

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

Date: February 2, 2007
Roll Call Vote #: 2

2007 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. HB1020 - 0116

#2 House **Appropriations Education and Environment Division** Committee

☒ Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken Do pass as amended

Motion Made By Rep. Klein Seconded By Rep. Monson

Representatives	Yes	No	Representatives	Yes	No
Chairman Wald:	✓		Representative Aarsvold:	✓	
Vice Chairman Monson	✓		Representative Gulleson		
Representative Hawken:	✓				
Representative Klein:	✓				
Representative Martinson:	✓				

Total (Yes) 6 No 0

Absent 1

Floor Assignment Representative Klein

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

78020.0116
Title.
Fiscal No. 14

Prepared by the Legislative Council staff for
House Appropriations - Education and
Environment
February 1, 2007

PROPOSED AMENDMENTS TO HOUSE BILL NO. 1020

Page 1, line 3, after "farm" insert"; to amend and reenact section 24-02-03.3 of the North Dakota Century Code, relating to the central motor pool" and after "funds" insert "; to provide for a study; to authorize hemp seed procurement; to provide an exemption"

Page 3, line 5, replace "3,149,956" with "4,312,956"

Page 3, line 7, replace "2,942,718" with "4,105,718"

Page 3, line 9, replace "2,098,685" with "3,261,685"

Page 3, line 12, replace "695,428" with "790,428"

Page 3, line 14, replace "207,631" with "302,631"

Page 3, line 22, replace "11,242,066" with "12,651,066"

Page 3, line 23, replace "(3,401,489)" with "(3,701,489)"

Page 3, line 24, replace "14,643,555" with "16,352,555"

Page 3, line 31, replace "(405,724)" with "(80,724)"

Page 4, line 2, replace "1,223,750" with "1,319,750"

Page 4, line 3, replace "2,868,839" with "3,289,839"

Page 4, line 5, replace "2,271,775" with "2,692,775"

Page 4, line 10, replace "19,282,626" with "22,670,626"

Page 4, line 11, replace "9,522,373" with "9,222,373"

Page 4, line 12, replace "28,804,999" with "31,892,999"

Page 4, line 22, replace "40,692,455" with "41,855,455"

Page 4, line 24, replace "41,322,455" with "42,485,455"

Page 4, line 26, replace "17,456,831" with "18,619,831"

Page 4, line 29, replace "2,598,111" with "2,693,111"

Page 4, line 31, replace "1,118,392" with "1,213,392"

Page 5, line 8, replace "86,698,779" with "88,107,779"

Page 5, line 9, replace "41,261,157" with "40,961,157"

Page 5, line 10, replace "45,437,622" with "47,146,622"

Page 5, line 17, replace "3,524,816" with "3,849,816"

Page 5, line 19, replace "5,482,090" with "5,578,090"

Page 5, line 20, replace "24,374,515" with "24,795,515"

Page 5, line 22, replace "10,658,084" with "11,079,084"

Page 5, line 27, replace "75,894,813" with "79,282,813"

Page 5, line 28, replace "107,808,940" with "107,508,940

Page 5, line 29, replace "183,703,753" with "186,791,753"

Page 6, after line 16, insert:

"**SECTION 7. AMENDMENT.** Section 24-02-03.3 of the North Dakota Century Code is amended and reenacted as follows:

24-02-03.3. Central management system for all state-owned licensed motor vehicles.

1. The director shall establish within the department a central vehicle management system to regulate the operation, maintenance, and management of all motor vehicles owned or leased by the state subject to registration under chapters 39-04 and 39-05. Upon the request of a state agency and an agreement between the agency and director for the use of the motor vehicle-related equipment, the director may purchase or lease motor vehicle-related equipment and include that equipment within the system. The director shall provide a uniform method of documenting the use and cost of operation of motor vehicles and motor vehicle-related equipment in the system. The director shall advise the director of the office of management and budget as to the need to acquire or dispose of system motor vehicles. The specifications for highway patrol vehicles to be acquired may be set by the highway patrol superintendent. Every state agency, institution, department, board, bureau, and commission unless exempted by the director must use the system. At the request of the director of the North Dakota agricultural experiment station, certain vehicles used in farming operations at the agronomy seed farm and branch research centers shall be exempt from the requirements of this section. However, an agency, institution, department, board, bureau, or commission may authorize the use of an employee's personal motor vehicle pursuant to subsection 4 of section 54-06-09.

2. The director may enter into an agreement with a state employee who has a disability requiring a specially-equipped vehicle to pay a mileage rate greater than the rate established in section 54-06-09 for the employee's use of the employee's specially-equipped motor vehicle while conducting state business. The rate must be based on the rate provided in section 54-06-09, increased by the actual cost per mile caused by the special equipment, and may not exceed the cost associated with the special equipment expressed as the new value plus the depreciated fair market value in eight years divided by two, divided by twenty thousand miles.

3. Each entity required to use the system shall submit records of the operation of each vehicle as directed by the director."

Page 6, after line 21, insert:

"**SECTION 9. INDUSTRIAL HEMP PRODUCTION - STUDY.** The main research center shall study industrial hemp production in North Dakota, including the latest available research and data regarding soils and growing conditions, seed availability, harvest methods, market economies, environmental benefit, law enforcement concerns, and issues of concern to producers from other countries. The agricultural experiment station shall present a report to the legislative council by August 1, 2008.

SECTION 10. HEMP SEED - PROCUREMENT - AUTHORIZATION. The main research center may contract with other entities for the procurement of hemp seed and to conduct industrial hemp research.

SECTION 11. EXEMPTION. The amounts appropriated for phase one of the research greenhouse complex project, as contained in subdivision 4 of section 3 of this Act and for the north central research center laboratory and greenhouse project, as contained in subdivision 5 of section 3 of chapter 48 of the 2005 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, 2007, and ending June 30, 2009.

SECTION 12. ONE-TIME FUNDING - EFFECT ON BASE BUDGET - REPORT TO SIXTY-FIRST LEGISLATIVE ASSEMBLY. The total general fund appropriation line item in section 3 of this Act includes $12,252,750 for the one-time funding items identified in this section. This amount is not a part of the agency's base budget to be used in preparing the 2009-11 executive budget. The agricultural experiment station shall report to the appropriations committees of the sixty-first legislative assembly on the use of this one-time funding for the biennium beginning July 1, 2007, and ending June 30, 2009.

North central research center laboratory and greenhouse project	$400,000
North central research center equipment storage facility	325,000
Phase II of main research center greenhouse project	9,000,000
Deferred maintenance pool	200,000
Carrington, Hettinger, and north central research center office addition projects	1,107,750
Hemp research at the main research center	325,000
Operating pool	800,000
Extraordinary repairs at northern crops institute	95,000
Total	$12,252,750"

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	$27,479,547	$0	$27,479,547
Less estimated income	26,255,663		26,255,663
General fund	$1,223,884	$0	$1,223,884

Branch Research Centers			
Total all funds	$24,374,515	$421,000	$24,795,515
Less estimated income	13,716,431		13,716,431
General fund	$10,658,084	$421,000	$11,079,084
NDSU Extension Service			
Total all funds	$41,322,455	$1,163,000	$42,485,455
Less estimated income	23,865,624		23,865,624
General fund	$17,456,831	$1,163,000	$18,619,831
Northern Crops Institute			
Total all funds	$2,598,111	$95,000	$2,693,111
Less estimated income	1,479,719		1,479,719
General fund	$1,118,392	$95,000	$1,213,392
Main Research Station			
Total all funds	$86,698,779	$1,409,000	$88,107,779
Less estimated income	41,261,157	(300,000)	40,961,157
General fund	$45,437,622	$1,709,000	$47,146,622
Agronomy Seed Farm			
Total all funds	$1,230,346	$0	$1,230,346
Less estimated income	1,230,346		1,230,346
General fund	$0	$0	$0
Bill Total			
Total all funds	$183,703,753	$3,088,000	$186,791,753
Less estimated income	107,808,940	(300,000)	107,508,940
General fund	$75,894,813	$3,388,000	$79,282,813

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

	EXECUTIVE BUDGET	HOUSE CHANGES	HOUSE VERSION
Dickinson Research Center	$6,077,229		$6,077,229
Central Grasslands Research Center	2,267,506		2,267,506
Hettinger Research Center	2,441,212		2,441,212
Langdon Research Center	1,697,293		1,697,293
North Central Research Center	3,524,816	$325,000	3,849,816
Williston Research Center	2,884,369		2,884,369
Carrington Research Center	5,482,090	96,000	5,578,090
Total all funds	$24,374,515	$421,000	$24,795,515
Less estimated income	13,716,431		13,716,431
General fund	$10,658,084	$421,000	$11,079,084
FTE	95.26	0.60	95.86

Dept. 628 - Branch Research Centers - Detail of House Changes

	ADDS FUNDING FOR EQUIPMENT STORAGE FACILITY [1]	ADDS FUNDING FOR WASTE MANAGEMENT SYSTEMS POSITION [2]	TOTAL HOUSE CHANGES
Dickinson Research Center			
Central Grasslands Research Center			
Hettinger Research Center			
Langdon Research Center			
North Central Research Center	$325,000		$325,000
Williston Research Center			
Carrington Research Center		$96,000	96,000
Total all funds	$325,000	$96,000	$421,000
Less estimated income			
General fund	$325,000	$96,000	$421,000
FTE	0.00	0.60	0.60

1 Adds $325,000 from the general fund for an equipment storage facility at the North Central Research Center.

2 Adds funding from the general fund for a .6 FTE position and related salaries and wages ($84,000) and operating costs ($12,000) for the waste management systems program at the Carrington Research Center.

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

	EXECUTIVE BUDGET	HOUSE CHANGES	HOUSE VERSION
Extension Service	$40,692,455	$1,163,000	$41,855,455
Soil Conservation Committee	630,000		630,000

Total all funds	$41,322,455	$1,163,000	$42,485,455
Less estimated income	23,865,624		23,865,624
General fund	$17,456,831	$1,163,000	$18,619,831
FTE	257.86	3.60	261.46

Dept. 630 - NDSU Extension Service - Detail of House Changes

	ADDS FUNDING FOR A 4-H YOUTH DEVELOPMENT POSITION [1]	ADDS FUNDING FOR A RURAL LEADERSHIP POSITION [2]	ADDS FUNDING FOR PARENTING RESOURCE CENTERS [3]	ADDS FUNDING FOR JUNIOR MASTER GARDENER PROGRAM [4]	ADDS FUNDING FOR WASTE MANAGEMENT SYSTEMS POSITION [5]	ADDS FUNDING FOR WINE RESEARCH POSITION [6]
Extension Service	$175,000	$200,000	$398,000	$20,000	$120,000	$250,000
Soil Conservation Committee						
Total all funds	$175,000	$200,000	$398,000	$20,000	$120,000	$250,000
Less estimated income						
General fund	$175,000	$200,000	$398,000	$20,000	$120,000	$250,000
FTE	1.00	1.00	0.00	0.00	0.60	1.00

	TOTAL HOUSE CHANGES
Extension Service	$1,163,000
Soil Conservation Committee	
Total all funds	$1,163,000
Less estimated income	
General fund	$1,163,000
FTE	3.60

[1] Adds $175,000 from the general fund for 1 FTE 4-H youth development position at the NDSU Extension Service.

[2] Adds $200,000 from the general fund for 1 FTE rural leadership position at the NDSU Extension Service.

[3] Adds $398,000 for the NDSU Extension Service to provide parenting resource centers statewide. The centers provide resources for urban and rural communities relating to such topics as parents working multiple jobs, divorce, and difficulty in rearing children.

[4] Adds $20,000 from the general fund to the NDSU Extension Service for the junior master gardener program.

[5] Adds funding from the general fund for a .6 FTE position and related salaries and wages ($96,000) and operating costs ($24,000) for the waste management systems program.

[6] Adds funding from the general fund for research on North Dakota wine production.

House Bill No. 1020 - Northern Crops Institute - House Action

	EXECUTIVE BUDGET	HOUSE CHANGES	HOUSE VERSION
Northern Crops Institute	$2,598,111	$95,000	$2,693,111
Total all funds	$2,598,111	$95,000	$2,693,111
Less estimated income	1,479,719		1,479,719
General fund	$1,118,392	$95,000	$1,213,392
FTE	11.20	0.00	11.20

Dept. 638 - Northern Crops Institute - Detail of House Changes

	ADDS FUNDING FOR ONE-TIME EXTRAORDINARY REPAIRS [1]	TOTAL HOUSE CHANGES
Northern Crops Institute	$95,000	$95,000
Total all funds	$95,000	$95,000
Less estimated income		
General fund	$95,000	$95,000
FTE	0.00	0.00

[1] Adds $95,000 from the general fund for extraordinary repairs relating to a one-time renovation project at the Northern Crops Institute.

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

	EXECUTIVE BUDGET	HOUSE CHANGES	HOUSE VERSION
Main Research Station	$86,698,779	$1,409,000	$88,107,779
Total all funds	$86,698,779	$1,409,000	$88,107,779
Less estimated income	41,261,157	(300,000)	40,961,157
General fund	$45,437,622	$1,709,000	$47,146,622
FTE	348.08	0.80	348.88

Dept. 640 - Main Research Station - Detail of House Changes

	INCREASES FUNDING FOR DEFERRED MAINTENANCE POOL [1]	ADDS FUNDING FOR INDUSTRIAL HEMP RESEARCH [2]	ADDS FUNDING FOR WASTE MANAGEMENT SYSTEMS POSITION [3]	ADDS FUNDING FOR OPERATING POOL [4]	CHANGES FUNDING SOURCE [5]	TOTAL HOUSE CHANGES
Main Research Station	$100,000	$325,000	$184,000	$800,000		$1,409,000
Total all funds	$100,000	$325,000	$184,000	$800,000	$0	$1,409,000
Less estimated income					(300,000)	(300,000)
General fund	$100,000	$325,000	$184,000	$800,000	$300,000	$1,709,000
FTE	0.00	0.00	0.80	0.00	0.00	0.80

1 Increases funding from the general fund from $100,000 to $200,000 for a deferred maintenance pool to address needs at the Main Research Center and branch research centers.

2 Adds funding from the general fund for conducting industrial hemp research at the Main Research Center.

3 Adds funding from the general fund for a .8 FTE position and related salaries and wages ($160,000) and operating costs ($24,000) for the waste management systems program.

4 Adds $800,000 from the general fund to the Main Research Station for an operating pool to be allocated as determined by the director of the Agricultural Experiment Station. In determining the allocation, the director of the Agricultural Experiment Station is to consider decreases in oil revenues at the Dickinson Research Center.

5 Changes the funding source from the agricultural research fund to the general fund for research projects as determined by the research granting committees.

House Bill No. 1020 - Other Changes - House Action

This amendment provides for a study of industrial hemp and authorizes the Main Research Center to contract with any other university for the procurement of hemp seed necessary to conduct research.

This amendment provides carryover authority for Phase 1 of the research greenhouse complex at the Main Research Center funded with bond proceeds ($2 million) and gifts, grants, and donations ($5 million) and for the North Central Research Center laboratory and greenhouse project funded with bond proceeds ($440,000) and gifts, grants, and donations ($1,250,000). These projects were authorized by the 2005 Legislative Assembly.

Amends North Dakota Century Code Section 24-02-03.3 to exempt certain vehicles used in farming operations at the Agronomy Seed Farm and branch research centers from state motor pool requirements.

Date: 2/8/06
Roll Call Vote #: 1

2007 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 1020

House Appropriations Full Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number 78020.0116

Action Taken Adopt amendment .0116

Motion Made By Klein Seconded By Wald

Representatives	Yes	No	Representatives	Yes	No
Chairman Svedjan					
Vice Chairman Kempenich					
Representative Wald			Representative Aarsvold		
Representative Monson			Representative Gulleson		
Representative Hawken					
Representative Klein					
Representative Martinson					
Representative Carlson			Representative Glassheim		
Representative Carlisle			Representative Kroeber		
Representative Skarphol			Representative Williams		
Representative Thoreson					
Representative Pollert			Representative Ekstrom		
Representative Bellew			Representative Kerzman		
Representative Kreidt			Representative Metcalf		
Representative Nelson					
Representative Wieland					

Total (Yes) _____ No _____

Absent _____

Floor Assignment _____

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

Voice Vote - Carries

Date: 2/8/06
Roll Call Vote #: 2

2007 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 1020

House Appropriations Full Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number 78020.0116

Action Taken Do Pass as amended

Motion Made By Wald Seconded By Klein

Representatives	Yes	No	Representatives	Yes	No
Chairman Svedjan		✓			
Vice Chairman Kempenich		✓			
Representative Wald	✓		Representative Aarsvold	✓	
Representative Monson	✓		Representative Gulleson	✓	
Representative Hawken	✓				
Representative Klein	✓				
Representative Martinson	✓				
Representative Carlson		✓	Representative Glassheim	✓	
Representative Carlisle		✓	Representative Kroeber	✓	
Representative Skarphol		✓	Representative Williams	✓	
Representative Thoreson		✓			
Representative Pollert		✓	Representative Ekstrom	✓	
Representative Bellew		✓	Representative Kerzman	✓	
Representative Kreidt		✓	Representative Metcalf	✓	
Representative Nelson	✓				
Representative Wieland		✓			

Total (Yes) 14 No 10

Absent 0

Floor Assignment Klein

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

Date: February 9, 2007
Roll Call Vote #:

2007 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. HB1020-0116

House **Appropriations Education and Environment Division** Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number

Action Taken To draft Remand to HB 1020 0116

Motion Made By Rep. Martinson Seconded By Rep. Hawken

Representatives	Yes	No	Representatives	Yes	No
Chairman Wald:	✓		Representative Aarsvold:	✓	
Vice Chairman Monson	✓		Representative Gulleson	✓	
Representative Hawken:	✓				
Representative Klein:	✓				
Representative Martinson:	✓				

Total (Yes) 7 No 0

Absent 0

Floor Assignment Rep. Klein

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

Date: Feb. 13
Roll Call Vote #: 1

2007 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. HB1003

House **Appropriations Education and Environment Division** Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken Move to amend By changing language

Motion Made By Rep. Gulleson Seconded By Rep. Monson

Representatives	Yes	No	Representatives	Yes	No
Chairman Wald:			Representative Aarsvold:		
Vice Chairman Monson			Representative Gulleson		
Representative Hawken:					
Representative Klein:					
Representative Martinson:					

Total (Yes) _____ No _____

Absent _____

Floor Assignment _____

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

Voice Vote.

Date: Feb
Roll Call Vote #: 2

2007 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO.

House **Appropriations Education and Environment Division** Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken Amend to Reinstate #1.4m

Motion Made By Rep. Hawken Seconded By Rep. Klein

Representatives	Yes	No	Representatives	Yes	No
Chairman Wald:			Representative Aarsvold:		
Vice Chairman Monson			Representative Gulleson		
Representative Hawken:					
Representative Klein:					
Representative Martinson:					

Total (Yes) _____ No _____

Absent _____

Floor Assignment _____

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

Voice Vote - Passed

78020.0117
Title.
Fiscal No. 15

Prepared by the Legislative Council staff for
House Appropriations - Education and
Environment
February 9, 2007

PROPOSED AMENDMENTS TO HOUSE BILL NO. 1020

Page 1, line 3, after "farm" insert "; to amend and reenact section 24-02-03.3 of the North Dakota Century Code, relating to the central motor pool" and after "funds" insert "; to provide for a study; to authorize hemp seed procurement; to provide an exemption"

Page 3, line 5, replace "3,149,956" with "3,587,456"

Page 3, line 7, replace "2,942,718" with "3,380,218"

Page 3, line 9, replace "2,098,685" with "2,536,185"

Page 3, line 12, replace "695,428" with "770,428"

Page 3, line 14, replace "207,631" with "282,631"

Page 3, line 17, replace "11,026,610" with "11,002,726"

Page 3, line 19, replace "60,980" with "37,096"

Page 3, line 22, replace "11,242,066" with "8,838,444"

Page 3, line 23, replace "(3,401,489)" with "(2,951,489)"

Page 3, line 24, replace "14,643,555" with "11,789,933"

Page 3, line 31, replace "(405,724)" with "(155,724)"

Page 4, line 1, replace "612,491" with "762,491"

Page 4, line 2, replace "1,223,750" with "1,319,750"

Page 4, line 3, replace "2,868,839" with "3,364,839"

Page 4, line 5, replace "2,271,775" with "2,767,775"

Page 4, line 10, replace "19,282,626" with "17,413,620"

Page 4, line 11, replace "9,522,373" with "9,972,373"

Page 4, line 12, replace "28,804,999" with "27,385,993"

Page 4, line 22, replace "40,692,455" with "41,129,955"

Page 4, line 24, replace "41,322,455" with "41,759,955"

Page 4, line 26, replace "17,456,831" with "17,894,331"

Page 4, line 29, replace "2,598,111" with "2,673,111"

Page 4, line 31, replace "1,118,392" with "1,193,392"

Page 5, line 3, replace "27,479,547" with "27,455,663"

Page 5, line 5, replace "1,223,884" with "1,200,000"

Page 5, line 8, replace "86,698,779" with "84,295,157"

Page 5, line 9, replace "41,261,157" with "41,711,157"

Page 5, line 10, replace "45,437,622" with "42,584,000"

Page 5, line 17, replace "3,524,816" with "3,774,816"

Page 5, line 18, replace "2,884,369" with "3,034,369"

Page 5, line 19, replace "5,482,090" with "5,578,090"

Page 5, line 20, replace "24,374,515" with "24,870,515"

Page 5, line 22, replace "10,658,084" with "11,154,084"

Page 5, line 27, replace "75,894,813" with "74,025,807"

Page 5, line 28, replace "107,808,940" with "108,258,940"

Page 5, line 29, replace "183,703,753" with "182,284,747"

Page 6, after line 16, insert:

"**SECTION 7. AMENDMENT.** Section 24-02-03.3 of the North Dakota Century Code is amended and reenacted as follows:

24-02-03.3. Central management system for all state-owned licensed motor vehicles.

1. The director shall establish within the department a central vehicle management system to regulate the operation, maintenance, and management of all motor vehicles owned or leased by the state subject to registration under chapters 39-04 and 39-05. Upon the request of a state agency and an agreement between the agency and director for the use of the motor vehicle-related equipment, the director may purchase or lease motor vehicle-related equipment and include that equipment within the system. The director shall provide a uniform method of documenting the use and cost of operation of motor vehicles and motor vehicle-related equipment in the system. The director shall advise the director of the office of management and budget as to the need to acquire or dispose of system motor vehicles. The specifications for highway patrol vehicles to be acquired may be set by the highway patrol superintendent. Every state agency, institution, department, board, bureau, and commission unless exempted by the director must use the system. At the request of the director of the North Dakota agricultural experiment station, certain vehicles used in farming operations at the agronomy seed farm and branch research centers shall be exempt from the requirements of this section. However, an agency, institution, department, board, bureau, or commission

may authorize the use of an employee's personal motor vehicle pursuant to subsection 4 of section 54-06-09.

2. The director may enter into an agreement with a state employee who has a disability requiring a specially-equipped vehicle to pay a mileage rate greater than the rate established in section 54-06-09 for the employee's use of the employee's specially-equipped motor vehicle while conducting state business. The rate must be based on the rate provided in section 54-06-09, increased by the actual cost per mile caused by the special equipment, and may not exceed the cost associated with the special equipment expressed as the new value plus the depreciated fair market value in eight years divided by two, divided by twenty thousand miles.

3. Each entity required to use the system shall submit records of the operation of each vehicle as directed by the director."

Page 6, after line 21, insert:

"**SECTION 9. INDUSTRIAL HEMP PRODUCTION - STUDY.** The main research center shall study industrial hemp production in North Dakota, including the latest available research and data regarding soils and growing conditions, seed availability, harvest methods, market economies, environmental benefit, law enforcement concerns, and issues of concern to producers from other countries. The agricultural experiment station shall present a report to the legislative council by August 1, 2008.

SECTION 10. HEMP SEED - PROCUREMENT - AUTHORIZATION. The main research center may contract with other entities for the procurement of hemp seed and to conduct industrial hemp research.

SECTION 11. EXEMPTION. The amounts appropriated for phase one of the research greenhouse complex project, as contained in subdivision 4 of section 3 of this Act and for the north central research center laboratory and greenhouse project, as contained in subdivision 5 of section 3 of chapter 48 of the 2005 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, 2007, and ending June 30, 2009.

SECTION 12. ONE-TIME FUNDING - EFFECT ON BASE BUDGET - REPORT TO SIXTY-FIRST LEGISLATIVE ASSEMBLY. The total appropriation in section 3 of this Act includes $9,032,750 from the general fund and $750,000 from the permanent oil tax trust fund for the one-time funding items identified in this section. This amount is not a part of the agency's base budget to be used in preparing the 2009-11 executive budget. The agricultural experiment station shall report to the appropriations committees of the sixty-first legislative assembly on the use of this one-time funding for the biennium beginning July 1, 2007, and ending June 30, 2009.

North central research center laboratory and greenhouse project	$350,000
North central research center equipment storage facility	300,000
Phase 2 of main research center greenhouse project	7,000,000
Deferred maintenance pool	100,000
Carrington, Hettinger, and north central research centers office addition projects	907,750
Hemp research at the main research center	300,000
Operating pool from permanent oil tax trust fund	750,000
Extraordinary repairs at northern crops institute	75,000
Total	$9,782,750"

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	$27,479,547	($23,884)	$27,455,663
Less estimated income	26,255,663		26,255,663
General fund	$1,223,884	($23,884)	$1,200,000
Branch Research Centers			
Total all funds	$24,374,515	$496,000	$24,870,515
Less estimated income	13,716,431		13,716,431
General fund	$10,658,084	$496,000	$11,154,084
NDSU Extension Service			
Total all funds	$41,322,455	$437,500	$41,759,955
Less estimated income	23,865,624		23,865,624
General fund	$17,456,831	$437,500	$17,894,331
Northern Crops Institute			
Total all funds	$2,598,111	$75,000	$2,673,111
Less estimated income	1,479,719		1,479,719
General fund	$1,118,392	$75,000	$1,193,392
Main Research Station			
Total all funds	$86,698,779	($2,403,622)	$84,295,157
Less estimated income	41,261,157	450,000	41,711,157
General fund	$45,437,622	($2,853,622)	$42,584,000
Agronomy Seed Farm			
Total all funds	$1,230,346	$0	$1,230,346
Less estimated income	1,230,346		1,230,346
General fund	$0	$0	$0
Bill Total			
Total all funds	$183,703,753	($1,419,006)	$182,284,747
Less estimated income	107,808,940	450,000	108,258,940
General fund	$75,894,813	($1,869,006)	$74,025,807

House Bill No. 1020 - Transportation Institute - House Action

	EXECUTIVE BUDGET	HOUSE CHANGES	HOUSE VERSION
Transportation Institute	$27,479,547	($23,884)	$27,455,663
Total all funds	$27,479,547	($23,884)	$27,455,663
Less estimated income	26,255,663		26,255,663
General fund	$1,223,884	($23,884)	$1,200,000
FTE	43.40	0.00	43.40

Dept. 627 - Transportation Institute - Detail of House Changes

	REDUCES FUNDING FOR OPERATIONS [1]	TOTAL HOUSE CHANGES
Transportation Institute	($23,884)	($23,884)
Total all funds	($23,884)	($23,884)
Less estimated income		
General fund	($23,884)	($23,884)
FTE	0.00	0.00

[1] Reduces funding for operations of the Upper Great Plains Transportation Institute.

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

	EXECUTIVE BUDGET	HOUSE CHANGES	HOUSE VERSION
Dickinson Research Center	$6,077,229		$6,077,229
Central Grasslands Research Center	2,267,506		2,267,506
Hettinger Research Center	2,441,212		2,441,212
Langdon Research Center	1,697,293		1,697,293
North Central Research Center	3,524,816	$250,000	3,774,816
Williston Research Center	2,884,369	150,000	3,034,369
Carrington Research Center	5,482,090	96,000	5,578,090
Total all funds	$24,374,515	$496,000	$24,870,515

Less estimated income	13,716,431		13,716,431
General fund	$10,658,084	$496,000	$11,154,084
FTE	95.26	1.60	96.86

Dept. 628 - Branch Research Centers - Detail of House Changes

	ADDS FUNDING FOR EQUIPMENT STORAGE FACILITY [1]	ADDS FUNDING FOR WASTE MANAGEMENT SYSTEMS POSITION [2]	ADDS FUNDING FOR IRRIGATION RESEARCH POSITION [3]	DECREASES FUNDING FOR LABORATORY AND GREENHOUSE [4]	TOTAL HOUSE CHANGES
Dickinson Research Center					
Central Grasslands Research Center					
Hettinger Research Center					
Langdon Research Center					
North Central Research Center	$300,000			($50,000)	$250,000
Williston Research Center			$150,000		150,000
Carrington Research Center		$96,000			96,000
Total all funds	$300,000	$96,000	$150,000	($50,000)	$496,000
Less estimated income					
General fund	$300,000	$96,000	$150,000	($50,000)	$496,000
FTE	0.00	0.60	1.00	0.00	1.60

[1] Adds $300,000 from the general fund for an equipment storage and maintenance shop facility at the North Central Research Center.

[2] Adds funding from the general fund for a .6 FTE position and related salaries and wages ($84,000) and operating costs ($12,000) for the waste management systems program at the Carrington Research Center.

[3] Adds funding for 1 FTE irrigation research position at the Williston Research Center.

[4] Decreases funding for North Central Research Center laboratory and greenhouse project from $400,000 to $350,000.

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

	EXECUTIVE BUDGET	HOUSE CHANGES	HOUSE VERSION
Extension Service	$40,692,455	$437,500	$41,129,955
Soil Conservation Committee	630,000		630,000
Total all funds	$41,322,455	$437,500	$41,759,955
Less estimated income	23,865,624		23,865,624
General fund	$17,456,831	$437,500	$17,894,331
FTE	257.86	0.60	258.46

Dept. 630 - NDSU Extension Service - Detail of House Changes

	ADDS FUNDING FOR A 4-H YOUTH DEVELOPMENT POSITION [1]	ADDS FUNDING FOR THE RURAL LEADERSHIP PROGRAM [2]	ADDS FUNDING FOR PARENTING RESOURCE CENTERS [3]	ADDS FUNDING FOR JUNIOR MASTER GARDENER PROGRAM [4]	ADDS FUNDING FOR WASTE MANAGEMENT SYSTEMS POSITION [5]	REMOVES FUNDING FOR A BIOPRODUCTS POSITION [6]
Extension Service	$150,000	$150,000	$300,000	$20,000	$120,000	($302,500)
Soil Conservation Committee						
Total all funds	$150,000	$150,000	$300,000	$20,000	$120,000	($302,500)
Less estimated income						
General fund	$150,000	$150,000	$300,000	$20,000	$120,000	($302,500)
FTE	1.00	0.00	0.00	0.00	0.60	(1.00)

	TOTAL HOUSE CHANGES
Extension Service	$437,500
Soil Conservation Committee	
Total all funds	$437,500
Less estimated income	
General fund	$437,500

FTE	0.60

1 Adds $150,000 from the general fund for 1 FTE 4-H youth development position at the NDSU Extension Service.

2 Adds $150,000 from the general fund for the rural leadership program.

3 Adds funding for the NDSU Extension Service to provide parenting resource centers statewide. The centers provide resources for urban and rural communities relating to such topics as parents working multiple jobs, divorce, and difficulty in rearing children.

4 Adds $20,000 from the general fund to the NDSU Extension Service for the junior master gardener program.

5 Adds funding from the general fund for a .6 FTE position and related salaries and wages ($96,000) and operating costs ($24,000) for the waste management systems program.

6 Removes funding for 1 FTE faculty position and related operating costs for bioproducts educational efforts.

House Bill No. 1020 - Northern Crops Institute - House Action

	EXECUTIVE BUDGET	HOUSE CHANGES	HOUSE VERSION
Northern Crops Institute	$2,598,111	$75,000	$2,673,111
Total all funds	$2,598,111	$75,000	$2,673,111
Less estimated income	1,479,719		1,479,719
General fund	$1,118,392	$75,000	$1,193,392
FTE	11.20	0.00	11.20

Dept. 638 - Northern Crops Institute - Detail of House Changes

	ADDS FUNDING FOR ONE-TIME EXTRAORDINARY REPAIRS 1	TOTAL HOUSE CHANGES
Northern Crops Institute	$75,000	$75,000
Total all funds	$75,000	$75,000
Less estimated income		
General fund	$75,000	$75,000
FTE	0.00	0.00

1 Adds $75,000 from the general fund for extraordinary repairs relating to a one-time renovation project at the Northern Crops Institute.

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

	EXECUTIVE BUDGET	HOUSE CHANGES	HOUSE VERSION
Main Research Station	$86,698,779	($2,403,622)	$84,295,157
Total all funds	$86,698,779	($2,403,622)	$84,295,157
Less estimated income	41,261,157	450,000	41,711,157
General fund	$45,437,622	($2,853,622)	$42,584,000
FTE	348.08	0.80	348.88

Dept. 640 - Main Research Station - Detail of House Changes

	ADDS FUNDING FOR INDUSTRIAL HEMP RESEARCH 1	ADDS FUNDING FOR WASTE MANAGEMENT SYSTEMS POSITION 2	ADDS FUNDING FOR OPERATING POOL 3	CHANGES FUNDING SOURCE 4	DECREASES FUNDING FOR BRANCH RESEARCH CENTER ADDITIONS 5	DECREASES FUNDING FOR OPERATIONS 6
Main Research Station	$300,000	$184,000	$750,000		($200,000)	($1,437,622)
Total all funds	$300,000	$184,000	$750,000		($200,000)	($1,437,622)
Less estimated income			750,000	($300,000)		
General fund	$300,000	$184,000	$0	$300,000	($200,000)	($1,437,622)
FTE	0.00	0.80	0.00	0.00	0.00	0.00

	DECREASES FUNDING FOR PHASE 2 OF GREENHOUSE PROJECT [7]	TOTAL HOUSE CHANGES
Main Research Station	($2,000,000)	($2,403,622)
Total all funds	($2,000,000)	($2,403,622)
Less estimated income		450,000
General fund	($2,000,000)	($2,853,622)
FTE	0.00	0.80

[1] Adds funding from the general fund for conducting industrial hemp research at the Main Research Center.

[2] Adds funding from the general fund for a .8 FTE position and related salaries and wages ($160,000) and operating costs ($24,000) for the waste management systems program.

[3] Adds $750,000 from the permanent oil tax trust fund to the Main Research Station for an operating pool to be allocated as determined by the director of the Agricultural Experiment Station. In determining the allocation, the director of the Agricultural Experiment Station is to consider decreases in oil revenues at the Dickinson Research Center.

[4] Changes the funding source from the agricultural research fund to the general fund for research projects as determined by the research granting committees.

[5] Reduces funding for Carrington, Hettinger, and North Central Research Centers office addition projects from $1,107,750 to $907,750.

[6] Decreases funding for operations of the Main Research Center.

[7] Decreases funding for Phase 2 of the research greenhouse complex project at the Main Research Center from $9 million to $7 million.

House Bill No. 1020 - Other Changes - House Action

This amendment provides for a study of industrial hemp and authorizes the Main Research Center to contract with any other university for the procurement of hemp seed necessary to conduct research.

This amendment provides carryover authority for Phase 1 of the research greenhouse complex at the Main Research Center funded with bond proceeds ($2 million) and gifts, grants, and donations ($5 million) and for the North Central Research Center laboratory and greenhouse project funded with bond proceeds ($440,000) and gifts, grants, and donations ($1,250,000). These projects were authorized by the 2005 Legislative Assembly.

Amends North Dakota Century Code Section 24-02-03.3 to exempt certain vehicles used in farming operations at the Agronomy Seed Farm and branch research centers from state motor pool requirements.

Date: February 13, 2007
Roll Call Vote #: 3

2007 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 1020 - 0117

House **Appropriations Education and Environment Division** Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken Do pass as amended

Motion Made By Rep. Hawken Seconded By Rep. Klein

Representatives	Yes	No	Representatives	Yes	No
Chairman Wald:	✓		Representative Aarsvold:	✓	
Vice Chairman Monson	✓		Representative Gulleson	✓	
Representative Hawken:	✓				
Representative Klein:	✓				
Representative Martinson:	✓				

Total (Yes) 7 No 0

Absent 0

Floor Assignment Rep. Klein

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

Do pass amendment to HB 1020, amendment .0117.

Date: 2/4/07
Roll Call Vote #: 2

2007 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 1020

House Appropriations Full Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number 78020.0119

Action Taken Do Pass as Amended by 0119

Motion Made By Klein Seconded By Wald

Representatives	Yes	No	Representatives	Yes	No
Chairman Svedjan	✓				
Vice Chairman Kempenich	✓				
Representative Wald	✓		Representative Aarsvold	✓	
Representative Monson	✓		Representative Gulleson	✓	
Representative Hawken	✓				
Representative Klein	✓				
Representative Martinson	✓				
Representative Carlson	✓		Representative Glassheim	✓	
Representative Carlisle	✓		Representative Kroeber	✓	
Representative Skarphol	✓		Representative Williams	✓	
Representative Thoreson	✓				
Representative Pollert	✓		Representative Ekstrom	✓	
Representative Bellew		✓	Representative Kerzman	✓	
Representative Kreidt	✓		Representative Metcalf	✓	
Representative Nelson	—				
Representative Wieland	✓				

Total (Yes) 22 No 1

Absent 1

Floor Assignment Klein

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

REPORT OF STANDING COMMITTEE

HB 1020: Appropriations Committee (Rep. Svedjan, Chairman) recommends **AMENDMENTS AS FOLLOWS** and when so amended, recommends **DO PASS** (22 YEAS, 1 NAY, 1 ABSENT AND NOT VOTING). HB 1020 was placed on the Sixth order on the calendar.

Page 1, line 3, after "farm" insert "; to amend and reenact section 24-02-03.3 of the North Dakota Century Code, relating to the central motor pool" and after "funds" insert "; to provide for a study; to authorize hemp seed procurement; to provide an exemption"

Page 3, line 5, replace "3,149,956" with "4,214,956"

Page 3, line 7, replace "2,942,718" with "4,007,718"

Page 3, line 9, replace "2,098,685" with "3,163,685"

Page 3, line 12, replace "695,428" with "770,428"

Page 3, line 14, replace "207,631" with "282,631"

Page 3, line 17, replace "11,026,610" with "11,002,726"

Page 3, line 19, replace "60,980" with "37,096"

Page 3, line 22, replace "11,242,066" with "10,276,066"

Page 3, line 23, replace "(3,401,489)" with "(2,951,489)"

Page 3, line 24, replace "14,643,555" with "13,227,555"

Page 3, line 31, replace "(405,724)" with "(155,724)"

Page 4, line 1, replace "612,491" with "762,491"

Page 4, line 2, replace "1,223,750" with "1,319,750"

Page 4, line 3, replace "2,868,839" with "3,364,839"

Page 4, line 5, replace "2,271,775" with "2,767,775"

Page 4, line 10, replace "19,282,626" with "19,478,742"

Page 4, line 11, replace "9,522,373" with "9,972,373"

Page 4, line 12, replace "28,804,999" with "29,451,115"

Page 4, line 22, replace "40,692,455" with "41,757,455"

Page 4, line 24, replace "41,322,455" with "42,387,455"

Page 4, line 26, replace "17,456,831" with "18,521,831"

Page 4, line 29, replace "2,598,111" with "2,673,111"

Page 4, line 31, replace "1,118,392" with "1,193,392"

Page 5, line 3, replace "27,479,547" with "27,455,663"

Page 5, line 5, replace "1,223,884" with "1,200,000"

Page 5, line 8, replace "86,698,779" with "85,732,779"

Page 5, line 9, replace "41,261,157" with "41,711,157"

Page 5, line 10, replace "45,437,622" with "44,021,622"

Page 5, line 17, replace "3,524,816" with "3,774,816"

Page 5, line 18, replace "2,884,369" with "3,034,369"

Page 5, line 19, replace "5,482,090" with "5,578,090"

Page 5, line 20, replace "24,374,515" with "24,870,515"

Page 5, line 22, replace "10,658,084" with "11,154,084"

Page 5, line 27, replace "75,894,813" with "76,090,929"

Page 5, line 28, replace "107,808,940" with "108,258,940"

Page 5, line 29, replace "183,703,753" with "184,349,869"

Page 6, after line 16, insert:

"**SECTION 7. AMENDMENT.** Section 24-02-03.3 of the North Dakota Century Code is amended and reenacted as follows:

24-02-03.3. Central management system for all state-owned licensed motor vehicles.

1. The director shall establish within the department a central vehicle management system to regulate the operation, maintenance, and management of all motor vehicles owned or leased by the state subject to registration under chapters 39-04 and 39-05. Upon the request of a state agency and an agreement between the agency and director for the use of the motor vehicle-related equipment, the director may purchase or lease motor vehicle-related equipment and include that equipment within the system. The director shall provide a uniform method of documenting the use and cost of operation of motor vehicles and motor vehicle-related equipment in the system. The director shall advise the director of the office of management and budget as to the need to acquire or dispose of system motor vehicles. The specifications for highway patrol vehicles to be acquired may be set by the highway patrol superintendent. Every state agency, institution, department, board, bureau, and commission unless exempted by the director must use the system. At the request of the director of the North Dakota agricultural experiment station, certain vehicles used in farming operations at the agronomy seed farm and branch research centers shall be exempt from the requirements of this section. However, an agency, institution, department, board, bureau, or commission may authorize the use of an employee's personal motor vehicle pursuant to subsection 4 of section 54-06-09.

2. The director may enter into an agreement with a state employee who has a disability requiring a specially-equipped vehicle to pay a mileage rate

greater than the rate established in section 54-06-09 for the employee's use of the employee's specially-equipped motor vehicle while conducting state business. The rate must be based on the rate provided in section 54-06-09, increased by the actual cost per mile caused by the special equipment, and may not exceed the cost associated with the special equipment expressed as the new value plus the depreciated fair market value in eight years divided by two, divided by twenty thousand miles.

3. Each entity required to use the system shall submit records of the operation of each vehicle as directed by the director."

Page 6, after line 21, insert:

"**SECTION 9. INDUSTRIAL HEMP PRODUCTION - STUDY.** The main research center shall study industrial hemp production in North Dakota, including the latest available research and data regarding soils and growing conditions, seed availability, harvest methods, market economies, environmental benefit, law enforcement concerns, and issues of concern to producers from other countries. The agricultural experiment station shall present a report to the legislative council by August 1, 2008.

SECTION 10. HEMP SEED - PROCUREMENT - AUTHORIZATION. The main research center may contract with other entities for the procurement of hemp seed and to conduct industrial hemp research.

SECTION 11. EXEMPTION. The amounts appropriated for the research greenhouse complex project, as contained in subdivision 4 of section 3 of chapter 48 of the 2005 Session Laws and for the north central research center laboratory and greenhouse project, as contained in subdivision 5 of section 3 of chapter 48 of the 2005 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, 2007, and ending June 30, 2009. 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 greenhouses.

SECTION 12. ONE-TIME FUNDING - EFFECT ON BASE BUDGET - REPORT TO SIXTY-FIRST LEGISLATIVE ASSEMBLY. The total appropriation in section 3 of this Act includes $9,032,750 from the general fund and $750,000 from the permanent oil tax trust fund for the one-time funding items identified in this section. This amount is not a part of the agency's base budget to be used in preparing the 2009-11 executive budget. The agricultural experiment station shall report to the appropriations committees of the sixty-first legislative assembly on the use of this one-time funding for the biennium beginning July 1, 2007, and ending June 30, 2009.

North central research center laboratory and greenhouse project	$350,000
North central research center equipment storage facility	300,000
Main research center greenhouse project	7,000,000
Deferred maintenance pool	100,000
Carrington, Hettinger, and north central research centers office addition projects	907,750
Hemp research at the main research center	300,000
Operating pool from permanent oil tax trust fund	750,000
Extraordinary repairs at northern crops Institute	75,000
Total	$9,782,750"

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	$27,479,547	($23,884)	$27,455,663
Less estimated income	26,255,663		26,255,663
General fund	$1,223,884	($23,884)	$1,200,000
Branch Research Centers			
Total all funds	$24,374,515	$496,000	$24,870,515
Less estimated income	13,716,431		13,716,431
General fund	$10,658,084	$496,000	$11,154,084
NDSU Extension Service			
Total all funds	$41,322,455	$1,065,000	$42,387,455
Less estimated income	23,865,624		23,865,624
General fund	$17,456,831	$1,065,000	$18,521,831
Northern Crops Institute			
Total all funds	$2,598,111	$75,000	$2,673,111
Less estimated income	1,479,719		1,479,719
General fund	$1,118,392	$75,000	$1,193,392
Main Research Station			
Total all funds	$86,698,779	($966,000)	$85,732,779
Less estimated income	41,261,157	450,000	41,711,157
General fund	$45,437,622	($1,416,000)	$44,021,622
Agronomy Seed Farm			
Total all funds	$1,230,346	$0	$1,230,346
Less estimated income	1,230,346		1,230,346
General fund	$0	$0	$0
Bill Total			
Total all funds	$183,703,753	$646,116	$184,349,869
Less estimated income	107,808,940	450,000	108,258,940
General fund	$75,894,813	$196,116	$76,090,929

House Bill No. 1020 - Transportation Institute - House Action

	EXECUTIVE BUDGET	HOUSE CHANGES	HOUSE VERSION
Transportation Institute	$27,479,547	($23,884)	$27,455,663
Total all funds	$27,479,547	($23,884)	$27,455,663
Less estimated income	26,255,663		26,255,663
General fund	$1,223,884	($23,884)	$1,200,000
FTE	43.40	0.00	43.40

Dept. 627 - Transportation Institute - Detail of House Changes

	REDUCES FUNDING FOR OPERATIONS [1]	TOTAL HOUSE CHANGES
Transportation Institute	($23,884)	($23,884)
Total all funds	($23,884)	($23,884)
Less estimated income		
General fund	($23,884)	($23,884)
FTE	0.00	0.00

[1] Reduces funding for operations of the Upper Great Plains Transportation Institute.

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

	EXECUTIVE BUDGET	HOUSE CHANGES	HOUSE VERSION
Dickinson Research Center	$6,077,229		$6,077,229
Central Grasslands Research Center	2,267,506		2,267,506
Hettinger Research Center	2,441,212		2,441,212
Langdon Research Center	1,697,293		1,697,293
North Central Research Center	3,524,816	$250,000	3,774,816
Williston Research Center	2,884,369	150,000	3,034,369
Carrington Research Center	5,482,090	96,000	5,578,090
Total all funds	$24,374,515	$496,000	$24,870,515
Less estimated income	13,716,431		13,716,431
General fund	$10,658,084	$496,000	$11,154,084
FTE	95.26	1.60	96.86

Dept. 628 - Branch Research Centers - Detail of House Changes

	ADDS FUNDING FOR EQUIPMENT STORAGE FACILITY [1]	ADDS FUNDING FOR WASTE MANAGEMENT SYSTEMS POSITION [2]	ADDS FUNDING FOR IRRIGATION RESEARCH POSITION [3]	DECREASES FUNDING FOR LABORATORY AND GREENHOUSE [4]	TOTAL HOUSE CHANGES
Dickinson Research Center					
Central Grasslands Research Center					
Hettinger Research Center					
Langdon Research Center					
North Central Research Center	$300,000			($50,000)	$250,000
Williston Research Center			$150,000		150,000
Carrington Research Center		$96,000			96,000
Total all funds	$300,000	$96,000	$150,000	($50,000)	$496,000
Less estimated income					
General fund	$300,000	$96,000	$150,000	($50,000)	$496,000
FTE	0.00	0.60	1.00	0.00	1.60

[1] Adds $300,000 from the general fund for an equipment storage and maintenance shop facility at the North Central Research Center.

[2] Adds funding from the general fund for a .6 FTE position and related salaries and wages ($84,000) and operating costs ($12,000) for the waste management systems program at the Carrington Research Center.

[3] Adds funding for 1 FTE irrigation research position at the Williston Research Center.

[4] Decreases funding for the North Central Research Center laboratory and greenhouse project from $400,000 to $350,000.

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

	EXECUTIVE BUDGET	HOUSE CHANGES	HOUSE VERSION
Extension Service	$40,692,455	$1,065,000	$41,757,455
Soil Conservation Committee	630,000		630,000
Total all funds	$41,322,455	$1,065,000	$42,387,455
Less estimated income	23,865,624		23,865,624
General fund	$17,456,831	$1,065,000	$18,521,831
FTE	257.86	2.60	260.46

Dept. 630 - NDSU Extension Service - Detail of House Changes

	ADDS FUNDING FOR A 4-H YOUTH DEVELOPMENT POSITION [1]	ADDS FUNDING FOR THE RURAL LEADERSHIP PROGRAM [2]	ADDS FUNDING FOR PARENTING RESOURCE CENTERS [3]	ADDS FUNDING FOR JUNIOR MASTER GARDENER PROGRAM [4]	ADDS FUNDING FOR WASTE MANAGEMENT SYSTEMS POSITION [5]	ADDS 1 FTE HORTICULTURIST POSITION [6]
Extension Service	$175,000	$200,000	$300,000	$20,000	$120,000	$250,000
Soil Conservation Committee						
Total all funds	$175,000	$200,000	$300,000	$20,000	$120,000	$250,000
Less estimated income						
General fund	$175,000	$200,000	$300,000	$20,000	$120,000	$250,000
FTE	1.00	0.00	0.00	0.00	0.60	1.00

	TOTAL HOUSE CHANGES
Extension Service	$1,065,000
Soil Conservation Committee	
Total all funds	$1,065,000
Less estimated income	
General fund	$1,065,000
FTE	2.60

1 Adds funding for 1 FTE 4-H youth development position at the NDSU Extension Service.

2 Adds funding for the rural leadership program.

3 Adds funding for the NDSU Extension Service to provide parenting resource centers statewide. The centers provide resources for urban and rural communities relating to such topics as parents working multiple jobs, divorce, and difficulty in rearing children.

4 Adds $20,000 from the general fund to the NDSU Extension Service for the junior master gardener program.

5 Adds funding from the general fund for a .6 FTE position and related salaries and wages ($96,000) and operating costs ($24,000) for the waste management systems program.

6 Adds 1 FTE horticulturist position for western North Dakota.

House Bill No. 1020 - Northern Crops Institute - House Action

	EXECUTIVE BUDGET	HOUSE CHANGES	HOUSE VERSION
Northern Crops Institute	$2,598,111	$75,000	$2,673,111
Total all funds	$2,598,111	$75,000	$2,673,111
Less estimated income	1,479,719		1,479,719
General fund	$1,118,392	$75,000	$1,193,392
FTE	11.20	0.00	11.20

Dept. 638 - Northern Crops Institute - Detail of House Changes

	ADDS FUNDING FOR ONE-TIME EXTRAORDINARY REPAIRS [1]	TOTAL HOUSE CHANGES
Northern Crops Institute	$75,000	$75,000
Total all funds	$75,000	$75,000

Less estimated income		
General fund	$75,000	$75,000
FTE	0.00	0.00

1 Adds $75,000 from the general fund for extraordinary repairs relating to a one-time renovation project at the Northern Crops Institute.

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

	EXECUTIVE BUDGET	HOUSE CHANGES	HOUSE VERSION
Main Research Station	$86,698,779	($966,000)	$85,732,779
Total all funds	$86,698,779	($966,000)	$85,732,779
Less estimated income	41,261,157	450,000	41,711,157
General fund	$45,437,622	($1,416,000)	$44,021,622
FTE	348.08	0.80	348.88

Dept. 640 - Main Research Station - Detail of House Changes

	ADDS FUNDING FOR INDUSTRIAL HEMP RESEARCH [1]	ADDS FUNDING FOR WASTE MANAGEMENT SYSTEMS POSITION [2]	ADDS FUNDING FOR OPERATING POOL [3]	CHANGES FUNDING SOURCE [4]	DECREASES FUNDING FOR BRANCH RESEARCH CENTER ADDITIONS [5]	DECREASES FUNDING FOR THE GREENHOUSE PROJECT [6]
Main Research Station	$300,000	$184,000	$750,000		($200,000)	($2,000,000)
Total all funds	$300,000	$184,000	$750,000		($200,000)	($2,000,000)
Less estimated income			750,000	($300,000)		
General fund	$300,000	$184,000	$0	$300,000	($200,000)	($2,000,000)
FTE	0.00	0.80	0.00	0.00	0.00	0.00

	TOTAL HOUSE CHANGES
Main Research Station	($966,000)
Total all funds	($966,000)
Less estimated income	450,000
General fund	($1,416,000)
FTE	0.80

1 Adds funding from the general fund for conducting industrial hemp research at the Main Research Center.

2 Adds funding from the general fund for a .8 FTE position and related salaries and wages ($160,000) and operating costs ($24,000) for the waste management systems program.

3 Adds $750,000 from the permanent oil tax trust fund to the Main Research Station for an operating pool to be allocated as determined by the director of the Agricultural Experiment Station. In determining the allocation, the director of the Agricultural Experiment Station is to consider decreases in oil revenues at the Dickinson Research Center.

4 Changes the funding source from the agricultural research fund to the general fund for research projects as determined by the research granting committees.

5 Reduces funding for Carrington, Hettinger, and North Central Research Centers office addition projects from $1,107,750 to $907,750.

6 Decreases funding for the research greenhouse complex project at the Main Research Center from $9 million to $7 million.

House Bill No. 1020 - Other Changes - House Action

This amendment provides for a study of industrial hemp and authorizes the Main Research Center to contract with any other university for the procurement of hemp seed necessary to conduct research.

This amendment provides carryover authority for the research greenhouse complex at the Main Research Center funded with bond proceeds ($2 million) and gifts, grants, and donations ($5 million) and for the North Central Research Center laboratory and greenhouse project funded with bond proceeds ($440,000) and gifts, grants, and donations ($1,250,000). These projects were authorized by the 2005 Legislative Assembly. In addition, references to Phase 1 and Phase 2 of the greenhouse project at the Main Research Center are removed. The Main Research Center may use any funding available within the total appropriation authority for the Main Research Center greenhouse project to begin construction. The total appropriation includes the carryover authority of $7 million and 2007-09 biennium authority of $7 million from the general fund.

Amends North Dakota Century Code Section 24-02-03.3 to exempt certain vehicles used in farming operations at the Agronomy Seed Farm and branch research centers from state motor pool requirements.

This amendment includes a section identifying one-time projects and for a report to the Appropriations Committees of the 61st Legislative Assembly regarding the use of this one-time funding.

2007 SENATE APPROPRIATIONS

HB 1020

2007 SENATE STANDING COMMITTEE MINUTES

Bill/Resolution No. HB 1003 (NDSU) and HB 1020

Senate Appropriations Committee

☐ Check here for Conference Committee

Hearing Date: February 28, 2007

Recorder Job Number: 4134

Committee Clerk Signature Alice Delzer N.D.

Minutes:

Chairman Holmberg opened the hearing on the NDSU section of HB 1003.

Keith Bjerke, Vice President for University Relations at NDSU, spoke in support of HB 1003 and presented written testimony: Final Report of a Comprehensive Evaluation Visit (Attachment 1) and NDSU folder of various handouts (Attachment 2). Spoke of NDSU's desire for the authority to increase self-raised monies to use for a sports arena.

Senator Robinson asked if the increased authorization of monies for the Bison Sports Arena might end up in an investment in the Fargodome?

Keith Bjerke said no, this bill is specifically for the Bison Sports Arena.

Senator Robinson asked if there was a plan to include Bison basketball when the decision was made to redo the Bison Sports Arena?

Keith Bjerke replied that there was on a much lesser level. The transition of Division 1 has gone way beyond what anyone dreamt it would and the need for a greater basketball facility is upon us.

Senator Tallackson asked if the new development in south Fargo has anything to do with NDSU?

Keith Bjerke answered that they requested that NDSU hold some of their sports events down there, but due to distance from the campus it was not seen as a viable option. Continued to explain handouts and the request to repeal old statues (p. 13, Attachment 2A).

Senator Robinson asked about the amount of annual basis revenue?

Keith Bjerke did not have an answer.

Chairman Holmberg requested that the information be provided at a later date.

Senator Mathern asked how the salary money would be used if it was increased? What is your plan for how to give the raises?

Keith Bjerke stated that the average across the system was 5% with a guaranteed minimum. The lower ranking salary officers get a bump. On top of that bump is a pay per performance and merit performance. When a new employee is hired, they are often brought in at a higher rate than someone who has been there for 20 years. This money allows more of equalization.

Senator Mathern asked what the original "bump" would be?

Keith Bjerke answered that it is a dollar bump instead of a percentage bump. The dollar amount has not yet been determined. A five-percent bump on the lower end of the pay scale does not equal very many dollars. By starting out with a five-dollar bump, you make progress.

Chairman Holmberg closed the hearing on HB 1003 and switched over to HB 1020.

Gene Griffin, Director of the Upper Great Plains Transportation Institute (UGPTI at NDSU), spoke and provided written information (Attachment 1) in support of HB 1020. Spoke of new and growing programs. One program, the North Dakota Local Technical Assistance Program, was recently relocated from NDSU to Bismarck.

Senator Krauter asked about what kind of communication NDSU has had with Bismarck State College regarding the relocation of the ND Local Technical Assistance Program?

Gene Griffin stated that UGPTI did inquire with BSC about relocating there, but there was no space available. A request is in with them if the space does become available.

Senator Krauter asked about a possible expansion that was taking place at BSC?

Gene Griffin stated that BSC is aware of the desire to be relocated to their campus and UGPTI does have a request in with BSC. Continued to speak of future goals (p. 7-8, Attachment 1).

Chairman Holmberg noted that the operating line had been reduced and asked about UGPTI's feelings about that?

Gene Griffin responded that they would like to have it, but it was not worth fighting over.

Neal Fischer, chairman of the statutory advisory council for the UGPTI, spoke and provided written testimony in support of HB 1020 (Attachment 2).

Francis Ziegler, Director of the Department of Transportation, gave oral testimony in support of HB 1020. DOT has had a long, positive, cooperative relationship with UGPTI and that enables the DOT to meet its mission of safely moving people and goods. Through the relationship, DOT and UGPTI have advanced numerous economic studies that have resulted in valuable insight into the logical system and program investments. DOT has a support center at the campus of NDSU where students are introduced into computer graphic techniques and real-world highway projects. UGPTI hires between 10-20 students during the year and they are trained and help design projects. Spoke further of various programs [41:42].

Chairman Holmberg opened the hearing again on HB 1003 [43:18].

Larry Kotchman, State Forester, spoke in support and provided written testimony (Attachment 3) on HB 1003. Spoke of accountability measures (p.3), state forestry goals (p.4), budget requests (p. 7), and budget adjustments (p.8).

Senator Bowman asked how and who would decide whether or not the program would be dropped if there were not more funds available? Many of these programs started with federal funds and then passed it along to the state.

Larry Kotchman responded that this is a dilemma that all agencies will eventually face. There is a contingency plan in place to try to diversify revenue sources. The programs have relied on federal funds and at some point a hard decision may have to be made.

Senator Bowman asked who makes that decision? Legislators or your department?

Larry Kotchman answered that it would need to be a joint decision.

Senator Fischer commented that the soil conservation has been putting in many new trees and asked if there is a plan to increase requests for trees?

Larry Kotchman said that tree sales have been strong and on the increase. They appear to be leveling off now. There is a good demand for trees. Continued explanation of capital asset requests (p. 9, Attachment 3).

Senator Fischer asked if there was a program to help rural fire districts buy used equipment?

Larry Kotchman answered yes, the program is still available. It is the Federal Excess Personal Property program. There are about 1800 pieces of equipment on loan to rural fire protection districts throughout North Dakota. There is a new department of defense fire fighting equipment transfer program that would be beneficial [56:20]. Continued to speak of various programs (p.10, Attachment 3) and critical forestry need, highlighting emerald ash borer and other invasive insects and pathogens (p.11, Attachment 3).

Senator Bowman asked what are the symptoms of a tree that is affected by them? And what does it take to kill the borer?

Larry Kotchman answered that the symptom is a general decline of the tree: thinning of the crown, less foliage, branches dying back, etc. It was first confused with other treatable

conditions, but after investigation it was discovered that it was caused by emerald ash borer. The tree shows its decline and eventually dies. There is no cure for this disease, only to remove the trees and destroy them to eradicate the habitat. We appreciate the executive recommendations and support (p.12, Attachment 3).

Chairman Holmberg opened the hearing on HB 1020 [63:54].

Dr. Patricia Berglund, Director of the Northern Crops Institute, spoke and presented written testimony (Attachment 3) in support of HB 1020. Highlighted funding impacts (p.4), major accomplishments (p.5-8), NCI initiative (p.9), and budget request and recommendation (p.12).

Senator Bowman asked if the extra ordinary repair request was in the governor's budget?

Dr. Berglund answered that it was not.

Senator Bowman asked if it was part of the one-time funding projects? This is over and above that?

Dr. Berglund replied that the $75,000 was added by the House and is included in HB 1020.

Senator Bowman asked if it was included in the request from the governor?

Dr. Berglund clarified that it was not in the request from the governor. NCI is the only regional organization charged with admission. Main competition is the Canadian International Grains Institute who receives generous annual funding from both the Canadian government and the Canadian Wheat Growers.

Senator Krauter asked for more information about the addition of oilseeds, pulse, and the potential for benefit.

Dr. Berglund stated that she made arrangements for Eric Bartsch (Northern Pulse Growers Association) to talk about that, but was not present. He would tell you that this addition is helping to make huge impacts in what can be done with these products. Examples followed [81:17].

Senator Krauter asked for more information on the oilseed part.

Dr. Berglund referred to written testimony from Dan Wiltse (Attachment 4) who represents the North Dakota Oilseeed Council on the NCI. Portions of the written testimony were read aloud.

Senator Krebsbach asked if the estimated income figure is the contribution from the other states?

Dr. Berglund said that yes, the figure is a contribution from others states as well as commodity funds that are provided from commodity groups in those four states, plus grants and contracts. Fees are also charged for courses and processing. Further written testimony from Jennifer Tesch, Chair of the Northern Crops Council, was handed out (Attachment 5).

Neil Fischer from the ND Wheat Commission and statutory advisory council for the UGPTI spoke in support of HB 1020. A portion of ND Wheat Commission's budget goes into US Wheat Associates and through that effort international customers that come through the NCI are developed. This is further reason to support this bill.

Chairman Holmberg closed the hearing on HB 1020 and HB 1003.

2007 SENATE STANDING COMMITTEE MINUTES

Bill/Resolution No. 1020

Senate Appropriations Committee

☐ Check here for Conference Committee

Hearing Date: 02-~~28~~-29-07

Recorder Job Number: 4135

Committee Clerk Signature Alice Delzer

Minutes:

Chairman Holmberg opened the hearing on HB 1020 regarding Northern Crops Association (NCI).

Eric Bartsch, Executive Director, Northern Pulse Growers Association and Representative of dry pea, lentil and chickpea growers and processors in North Dakota and Montana gave written testimony (1) and oral testimony in support of HB 1020. Just briefly the NCI has given us the ability as an industry to really expand our market opportunities. He further shared about what NCI does for the industry considering pulse crops.

Chairman Holmberg asked if there were any questions. There were none. The hearing on HB 1020 closed.

2007 SENATE STANDING COMMITTEE MINUTES

Bill/Resolution No. 1020

Senate Appropriations Committee

☐ Check here for Conference Committee

Hearing Date: 03-01-07

Recorder Job Number: 4184

Committee Clerk Signature

Minutes:

Chairman Holmberg opened the hearing on HB 1020 with roll call and indicating the subcommittee would be Senators Bowman, Lindaas, and Holmberg.

Keith Bjerke, Vice President NDSU Relations, testified in support of HB 1020 indicating he did have some business left over from yesterday's hearing. He indicated the request was how much was the income from the 19th Avenue area and it is about $190,000 annually. The specials to be assessed on 17th are $96,000 annually and on 12th is $47,736 annually, each for a total of 25 years. By repealing the section requested yesterday, the money will be there to pay the specials on those projects for the next 25 years. The other thing he had not mentioned is the importance of the base funding. Please understand all of us in the system do require a solid base funding proposal to do our business.

Representative Michael D. Brandenburg, District 28, Edgeley, introduced HB 1020 and discussed the importance of the greenhouse being built because the old one is very outdated.

Jerry Effertz, Velva, Chairman, State Board of Ag and Research and Education distributed two fliers, one entitled SBARE, and one Proud of ND Agriculture. He introduced the board members present and discussed SBARE. He then discussed the proposed budget with its 15 percent increase. He indicated they were permitted to have 13 priority rankings of

importance and the top three are included in the budget, the House added one additional priority.

Duane Hauck, Director, NDSU Extension Service, presented written testimony in the NDSU Ag and University Extension Biennial Budget book, describing who they rely on for support. He reviewed funds appropriated last session discussing what had been done with the funds. He discussed the eight major program areas, the research based education program that NDSU strives to do. He then reviewed the needs base budget as outlined in the book and highlighted specific areas. He reviewed the house amendments on page 96 and what they added in.

Senator Bowman reviewed what was in the orange book and the changes from the original budget asking for clarification as to what house added and what Governor approved.

Ken Grafton, Dean, College of Agriculture, and Director, ND Ag Research Center, testified indicating Agriculture is a very important part of the states economy in fact some argue it is 40 percent of the economy. He reviewed his agency description, the mission statement, reviewed what happened during the 2005-07 biennium. He discussed the building and construction projects, and the livestock projects. In addition he discussed the fund raising that is going on to raise $5 million for phase one of the project. He then discussed the needs base budget, the research centers, what the Governor included in the budget and what the House included. He also discussed the carryover monies that are being requested and the greenhouse project, research centers, as well as other projects.

Senator Krauter asked about raising the $1.2 million they had raised and the challenges they encountered and asked if that included any federal monies. Mr. Grafton indicated raising $ 5 million is difficult but he described what is transpiring and what the plans are to raise the

additional amount needed. He also indicated no federal funding is being utilized nor will they be because of a situation that developed elsewhere and everyone suffered because of it.

Senator Bowman asked if there was any money from one time funding in any of the projects. The response was yes, from the capital improvement and a trust fund.

Senator Krauter asked if $200,000 is enough for the program to sustain itself. The response was it would meet the short term needs.

Senator Bowman asked if these funds are part of the $8 million. The response was yes.

Senator Krebsbach asked to Mr. Grafton to go through the priority list of the Governor and what the House added.

Ken Grafton continued his discussion on the capital improvement projects, phase two of the greenhouse and the fact they will be constructing both phase 1 and 2 simultaneously. He also discussed additional FTE's that are requested to be put in place.

Senator Wardner clarified that the house approved $7 million. The response was yes they moved the budget from $9 to $7 million.

Senator Wardner then asked what would be dropped. The response was nothing, the project will move slower and the actual costs may go up over time.

Senator Krauter discussed the building diagram and how it was justified to create different environments. The response was the controlled environment allows use of the research components more effectively.

Senator Krauter if Mr. Grafton could provide a comfort level that the additional $5 million will be met. Mr. Grafton explained how this will come about with the use of the professional fund raisers.

Senator Mathern indicated a scenario with a family member who is at a cancer treatment center where they will not feed port because pork is not identifiable as a safe meat. What

would a swine specialist do? The response was he would be broad based looking at many areas.

Senator Lindaas indicated he lives near the pork corridor and he believes the state needs to get control of what goes into those carcasses.

Jerry Doen, Farmer, McKenzie, testified in support of 1020 in its original budget discussing the support and importance of the greenhouse and concerns about the house cutbacks. This is an investment in the future. He discussed the 4-H program and the request for two positions. He talked about the rural leadership project as priority #4 on the list. He discussed the funds the 4H rodeo has raised that have gone back into the program.

Senator Mathern commented that child abuse, suicide rate, and drug addiction are higher in rural areas and don't you agree that this organization can combat that. The response was absolutely, I can relate to keeping kids busy and active.

Rodney Howe, Hettinger, Farmer, Ag Loan Officer for Dakota Plains Federal Credit Union, member Hettinger Research and Extension Advisory Board, Vice Chairman, State Board of Ag Research and Extension, testified on concepts regarding SPARE ranking of the capital improvement projects. The greenhouse has been addressed and I ask that you carefully consider supporting that, it is time to do that now and as right as we can. Additionally, the capital improvement projects for Carrington, Hettinger, and Minot do need to be expanded. Initially these buildings were built on local contributions. The Beef Research facility was originally built in the 1940's and 50's and we need to move forward. Anything to do with value added products in ND benefits us, consider funding these.

Annette Olson, Miss North Dakota, 2007, testified in support of the 4 H program stressing kids gain potential through that process. The impact of the 4 H program produces the shakers and movers and she urged full funding for this program.

Scott Hochhalter distributed written testimony (4) and read the testimony on behalf of **Tom Christensen, Chairman, ND State Soil Conservation Committee** who urged full support of HB 1020.

Chairman Holmberg indicated that he has received information about the Smithsonian Soil Exhibit opening at the Smithsonian Natural History Museum in Washington DC in 2008 and the understanding is that each state is asked to be a part of that and contribute $10,000. As of today, North Dakota, through contributions, $2135 had been raised and we might visit with you all to see what we can do to prime that pump as a Legislature. Like if we talk about $4,000 in matching money to help get us to that place and have an exhibit.

Barry Coleman, Northern Canola Growers of ND, testified in support of HB 1020 discussing the appropriations specifically for the greenhouse at the main research center and the capital improvement projects at Carrington, Hettinger and the North Central Research Center. He discussed a few of the scientists that are making great strides in their research. He urged reinstating the funds the House removed.

Eric Bartsch, Executive Director, Northern Pulse Growers Association, represented dry pea, lentil and chickpea growers in ND and Montana presented written testimony (5) testifying on the support of the extension centers, the establishment of the breed program in ND, the pest management, and the research centers. He strongly urged reinstating funds to fully fund HB 1020.

Jim Teigen, farmer, Rugby, Supervisor, Pierce County Soil Conservation District Board, presented written testimony (6) and a ND State Soil Conservation Committee District Assistance Program document (7) and testified in support of the fully funded HB 1020. He talked about the impact the centers have in North Dakota crops as well as the breeding

program. He further discussed the funding level history of the program included the request and the amount allocated. In addition he requested an additional allocation.

Senator Bowman asked what funds he was requesting. The response was $200,000 which would allow for one FTE in each office.

Chairman Holmberg indicated there was a huge disparity of wages in the soil conservation district offices, is that still the case today. The response was Mr. Tiegen did not have the numbers, but it is still the case.

Chairman Holmberg indicated he knows of two people who worked for the soil conservation are now with NRCS. The response was this happens almost every year because very few employees get benefits on their job.

Richard Faught, Amenia, President, ND Association of Soil Conservation Districts, presented written testimony (8) and testified in support of increasing the budget allocated in HB 1020. He discussed the importance of the Soil Conservation Districts and their assistance program that is in place, where the funding comes from and the request for additional funds. He also indicated there is an issue developing now on soil salinity which affects everyone especially in the Red River Valley and Devils Lake region.

Wade Moser, ND Stockman's Association, distributed a map, comparative list of funding by state, and a diagram of the Beef Systems Centers of Excellence (9) testifying on the beef check off dollars, the map he distributed, and the floor plan of the Centers of Excellence. He stressed the concern about the Beef Center check off dollars to be used in research. The universities across the country that have used check off dollars in research is attached. The area that has not been completed in ND is the signing of contracts on behalf of the University and the Stockman's Association.

Senator Wardner asked how the Legislative Body can intervene to get this moving. The response was the Legislature can insert intent language.

Senator Krebsbach asked how much ND has submitted nationally. The response was the Beef Center has a $200,000 proposal with the Beef Commission. Grants range from $3,000 to $600,000 and under federal law there needs to be an agreement. In North Dakota we collect about $1.5 million per year from the beef check off and nationally it runs between $80-$90 million.

Keith Bjerke, Vice President University Relations, responded to this committee suggesting this committee hear from the entities struggling over this issue. Every effort has been made to resolve this. Those involved are NDSU Grants and Contracts Office and the ND Beef Commission.

Senator Bowman asked who the contact people are. The response was Vice President Bruchiak, Val Kepner and the ND Beef Commission.

Senator Christmann asked if all other states accept the language in question. The response was that a copy of those contracts had been requested but other states will not provide that information.

Senator Bowman asked if this project hinges on the researchers finding extra money to do their research with. So, all of this is a marriage between the state, NDSU, the Beef Center of Excellence program and the cattlemen. The response was yes, it is critically important. Every other commodity group in ND has already signed contracts to perform the same types of research.

Senator Christmann questioned Mr. Moser as to what other states are doing. The response was the leading University Kansas State has signed an agreement (a copy of which he has)

and gives 100 percent back to the National Cattleman Beef Association and he will bring a copy of that to the committee.

Senator Wardner asked if it also stated "giving it away free." The response was he had not really looked at that specific language. The compromise the ND Beef Commission made was the language that the money could not be given away free unless both parties agreed to it.

Senator Grindberg indicated he had not been involved with the points raised now but he had been involved with other agreement processes and they are not an overnight experience. There is a lot of legal work involved in both sides. The ones I have been involved in take 6 – 9 months.

Senator Bowman indicated perhaps we need some intent language so the dollars could be available for research. This needs to be resolved for the benefit of all of us and it needs to be resolved.

Deana Wieze, Administrator, ND Ag Coalition, presented written testimony on behalf of Mr. Kent Albers who encouraged support of HB 1020.

Tom Tiegen, Director, Agronomy Seed Farm, testified in support of continued funding for the greenhouse.

Additional written testimony was provided from the ND Farmers Union in support of HB 1020, Carol Goodman, Economic Development Association of ND, a document form NDSU Dickinson Research Extension Center, a publication from the Central Grasslands Research Extension Center, and NDSU Central Grasslands Research Extension Center.

Chairman Holmberg then closed the hearing on HB 1020.

2007 SENATE STANDING COMMITTEE MINUTES

Bill/Resolution No. 1020

Senate Appropriations Committee

☐ Check here for Conference Committee

Hearing Date: March 13, 2007

Recorder Job Number: 4998

Committee Clerk Signature

Minutes:

Senator Bowman called the meeting of the subcommittee to order. He said he has received several requests since the bill came over from the House to fund research centers. SBARE set down the priorities and we need to stick to them. One of the requests was from Williston for an additional $80,000 for an irrigation specialist. He realizes in that area that is probably an important project. But, they put in $150,000 for that. This would have to come at the expense of something if we keep adding. What is the feeling on the extra $80,000 for that project.

Jerry Effertz said SBARE spent a lot of time over the last 18 months determining a priority list. After doing that and when they come to the legislature, they recognize there are legislators that have specific issues they want to bring forward. It is not SBARE's role to determine whether that is good or bad. They have collected information from the agriculture community and tried to prioritize it while they recognize the legislature is going to do what they feel is in the best interest as well.

Senator Bowman said it would work out well if 15% of the total budget was left for legislators to come up with their proposals. We don't have that luxury, we have a budget we have to balance. The legislators want projects for their own districts, that is a way of life. His responsibility is to look at what is best for the state as a whole. They put $900,000 in this budget over and above last year for operations and equipment purchases, that is a substantial

increase. We gave flexibility to the main station. Do the centers around the state have the same flexibility or do they have to dedicate that money for a specific purpose.

The answer was they have the flexibility. (Speaker is unidentified)

Senator Bowman said that answers a big question. As you breakdown how much each station is getting, if they decide they needed more money at one station, they could use operating dollars without a problem. He doesn't want to micromanage.

Answer: Three biennium's ago, OMB with legislative approval, made them a single line item. They appreciate the flexibility and use it a lot.

Senator Bowman asked, and this is for one specific legislator in the House, about the $300,000 for hemp. We had all the answers as to why we need hemp and now we don't have a researcher. Are we going to start to build a program for maybe one or two farmers, specifically for one, and over a period of time is that going to grow and take away money from other research areas we need? He thought we had most of the answers before we supported it. Now we need $200,000 for someone to research this.

Answer: If you look at the priority list that was submitted by SBARE you would not see hemp. Jerry Effertz added the priority list ranked 13 projects and they considered between 30 and 35 projects and hemp was not part of that 35.

Senator Bowman said he thought we made a major step in getting it passed so somebody could try to raise it but he doesn't know if it's reached a point where that research is of vital interest to the state. If it's going to be huge cash crop for North Dakota farmers, then we could funnel some money towards it.

Answer: It is probably a little early in the game. Nothing is off the ground yet.

Senator Bowman asked about the Soil Conservation project in Washington DC and they are probably at the bottom of the totem pole of getting any money at all. They have an important

role in North Dakota agriculture with their role in soil erosion and water development. Will there be heartburn if they move money into that.

Answer: The project in Washington is the state soil display at the Smithsonian, the $10,000 the state has to raise. NRCS is collecting funds, they have raised $2000. The state soil conservation committee does a good job of leveraging the funds they receive from the legislature with federal dollars to do conservation work on land and they just approved yesterday at their meeting the grant request from the soil conservation districts across the state using this years funding allocations. NRCS is very interested in continuing to help them by providing additional support.

Senator Bowman said a couple of years ago he put $50,000 in there and never got so many thank you's in all his life.

Senator Bowman said everyone wants the greenhouse. That is the strongest message we heard, $9 million. He understands from the House side, they gave you the flexibility to use the $2 million that was set aside two years ago. If the second phase is the most important part to get done, you could use that $2 million plus the $7 million, is that right?

Answer: That is correct in some respects. Last session there was $2 million in state bonding and the authority to raise $5 million in donations which would bring $7 million to phase one. They are in the process of raising the $5 million, it is not the easiest thing to do. They also requested to continue the momentum of constructing these greenhouses, they requested phase two so they could complete phases one and two simultaneously. There would be some efficiency in building two similar structures at once. That would give them a $16 million facility. The House reduced the $9 million to $7 million so now they have authority to construct a $14 million facility if approved by the Senate.

Senator Bowman said it is a number one priority, why did the House cut out $2 million? By the next biennium, you may have the $5 million raised. How will this play out.

Answer: The House gave them the authority to begin construction at the same time they are building so they can continue to raise money for the match of $5 million at the same time they begin construction. They have $1.25 million already collected. With the help from the NDSU Development Foundation that they anticipate receiving in June, they should have little difficulty raising the balance. They would have the $2 million in state bonding, the $5 million in gifts or donations and then hopefully the $9 million which would get them phases one and two.

Senator Bowman asked if NDSU prioritized the money when they bought the building downtown? Is that the same group.

Answer: Yes, it is the same group, the NDSU Development Foundation. They purchased the property. They have had their eye on it for two years.

Senator Bowman said they have been working on the greenhouse for a while. He is trying to figure out the Development Foundation.

Answer: Yes, we have. President Chapman has indicated he is working very closely with the Development Foundation to put the greenhouses as a very high priority.

Senator Bowman said there is no one in agriculture that would oppose it, it is just a matter of financing. There are other priorities too.

Answer: He would love it if we could finish the greenhouses and move on to other priorities.

Senator Bowman said Minot is also building a greenhouse to the tune of $400,000.

Answer: At Minot, its $1.6 million.

Senator Bowman asked why we would build a greenhouse in Minot when we are building the fanciest state of the art greenhouse in the United States in Fargo.

Answer: They are two completely different missions. The mission of the greenhouse in Fargo is state of the art research, plant breeding and genetics. It is to study pathogens that are not a problem in the area yet but probably will be . Very precise experimentation will be able to be carried out within very controlled facilities. The greenhouse at Minot would be much more general in use for herbicide evaluation, some horticulture experimentation, it would have a completely different function.

Senator Bowman said his point is dollars and cents. When phase one and phase two aren't paid for in Fargo and we have $1.6 million into the project in Minot, that could have gone to phase 1. That bothers him. Here we are working so hard to get this major project done and to go and spend $1.6 million in Minot... There are two capital projects that were added that were not discussed in Hettinger and Carrington and North Central to the tune of almost $1 million. From a business standpoint, as soon as you build those additions, you take away money for research because you have a fixed cost at three facilities. You are going to hire people, you will have more maintenance, more electricity, and that takes away from the major research projects we should be doing. At a time when we think about projects like the Centers of Excellence, we have been spending millions of dollars on scab research for 10 years now, these are the kinds of things the farmers and ranchers out there want because it affects their bottom line. If we continue to find other areas to spend money and we don't complete some of this research, he has the concern that we are never going to get done with this job. The goal is to stop a problem so a farmer can capitalize on the solution. SBARE must talk about these same things.

Jerry Effertz said they had a number of program projects to prioritize. With regard to the remodeling, part of it is growth. He discussed the projects and the need for them. (meter 24.31)

Senator Bowman talked about technology and its expense.

Answer: When the budget was drawn, they had continuing projects and one time capital improvements.

Senator Bowman said for years we have heard we don't have the money to maintain our campuses so he thought this would be the perfect time. He was thinking about paint and fixing fences, not putting $1 million and put it into a building we haven't fixed anything, we have just added to cost. He can understand the need but they have to understand the legislature's responsibility. Getting the Beef Center of Excellence up to snuff is important to him and to keep young farmers and ranchers in the business. Now it will take $1 million to redo the research deal in Fargo.

Jerry Effertz said he is on Senator Bowman's side. SBARE dealt with priorities and he is comfortable with the rankings. How far down the priority list the legislature goes is a matter of how much money is available. Should the Senate be able to find funding that our friends across the hall chose to fund that the Senate may not choose to fund, the beef facility is a critical piece Center of Beef Excellence. It too is one time funding.

Senator Bowman asked who has evaluated all the research centers in the livestock industry to see how they complement the main goal of the Beef Center. We have Hettinger, Dickinson, Carrington, Streeter and they will all be a part of it. Who has a master plan?

Answer: He has asked the former director (Tim Fowler?) of the Hettinger Research Center to sit down with the directors of the Livestock Centers as well as faculty in the Department of Animal and Range Sciences. Tim, working closely with Greg Lardy, helped develop the plan on how the various centers will interact to complement each other their work. They have three new meat scientists on board. The plan is on the website. Yesterday they finalized the plan. The plans of Higher Education are never completed because they are a moving target. The

talks are ongoing. With Dr. Buchanan, the new head of Animal Science coming, it will help catalyze the process.

Senator Bowman said another aspect is nutrition and a consistent ration. Are our farmers ready to understand that? He wants to maximize every dollar we spend. He would like to meet with Tim. What is the critical part of the beef barn in Fargo, how much time do we have to either lose the project or save it?

Answer: That is a great question. Engineers from the state have indicated the current facility is in pretty bad shape. In fact they said it should be demolished but they will give it a couple more years. That is beside the point in some respects. The point is it is an antiquated facility. Because of a lack of maintenance or whatever reason, it has fallen into disrepair. If we are going to have a state of the art Beef System Center of Excellence to allow us to conduct top quality research on meat, we have to have the facilities upstream to allow us to conduct the research downstream. Very similar to the greenhouse facility, we are asking for facilities that are state of the art within reason, they have modest requests actually, but will give the scientists the opportunity to conduct their research in the facilities that will give them the answers that will allow the farmers and ranchers in the state to have a better bottom line.

Jerry Effertz said the more we can do now, the less difficult it will be down the road.

Senator Bowman said we have a bottom line we have to have. How can you not do something for the veterans of North Dakota but that puts us in a tougher situation. He talked about sustainability of programs and wise investments that do not raise fixed costs.

Senator Bowman asked about the agreement with the National Cattlemen's Association.

Answer: There were a series of meetings. After those meetings, he was involved in one, they were able to get them to agree with the language as submitted by NCBA. That information was sent directly to Nancy Jo Bateman and his understanding it has been agreed on by the North

Dakota Beef Commission. The information has also been sent to NCBA. We think they are going to agree to the contract because it is their language but we do not have the final signed contract but we have agreed 100% to their language so he sees no reason they won't be acceptable.

Senator Bowman would like to have it signed because he would like to see how many dollars it will bring in for research. That is what it is all about.

Jerry Effertz said those dollars are available through the check off. They will be available to be applied for, the agreement opens the door.

We have to get together on a bottom line figure. We will have more money in this budget than we ever have before and agriculture is going to be a winner when we get out of here. He still has to maintain a balanced budget. Is there any other information the subcommittee should have?

Answer: In regards to Tim Fowler, there is a meeting going on this week, a nutrient management seminar with all the centers collaborating.

Senator Bowman said he will talk to Senator Holmberg who was unable to be here today. He will try to figure out how to prioritize from his side.

Senator Bowman adjourned the meeting of the subcommittee on HB 1020.

2007 SENATE STANDING COMMITTEE MINUTES

Bill/Resolution No. 1020

Senate Appropriations Committee

☐ Check here for Conference Committee

Hearing Date: 03-23-07

Recorder Job Number: 5520

Committee Clerk Signature

Minutes:

Chairman Holmberg opened the hearing on HB 1020 on 3/23/07.

Senator Bowman distributed amendments 0201 on HB 1020 and reviewed what the House had done on the bill and reviewed what this amendment contains. Overall it reprioritizes three projects. He tried to coordinate all of the activities together, removed the funding for a storage facility in Minot, and hemp. He then reinvested that into soil conversation demonstration with the Smithsonian Institute, the irrigation specialist position to receive additional funding, the research centers to receive funding. He indicated there is about $1 million in the budget from last session for operating and equipment purchases and has flexibility with that money to use according to needs. The last is the additional money left over after what we added is $500,000 plus which will be in the hands of the Fargo extension service and SBARE to make the decision as to whether to add to the greenhouse or to start on the beef center research facility.

Senator Bowman moved approval of the amendments 0201, Senator Krebsbach seconded.

Discussion followed.

Senator Christmann expressed concerns about soil conservation being in with research and extension. What can we as state government do for soil conservation and where at?

Chairman Holmberg indicated that on the regular budget we have money that goes out to these folks.

Don indicated that extension service in the soil conservation as part of that the executive budget included $630,000 which is the same as last biennium for that committee. D With this amendment we are increasing that up to $737,800. The vast majority of that is grants.

Chairman Holmberg asked if those are competitive grants that go to the soil conservation district.

Senator Seymour asked what year the beef center came about. How long have we talked about that?

Senator Bowman responded that four years ago we started talking about the beef center of excellence and they had to find money to do that. After they got the money and had the program going, they received $800,000 to help with that. They have three excellent researchers on at NDSU to help with this. The beef facility is already there but it is very old and needs to be redone. The reason I asked them to evaluate this is there are three other research centers that do work with beef so we can look at those centers and maximize their efficiency and then when they go ahead with the new facility at NDSU they will be able to put in what their needs are and maximize that with Carrington, Streeter, Hettinger and Dickinson. The environmental issues need to be considered before they ever set the location.

Senator Mathern asked the committee to reconsider the parenting issue some folks came in last summer and discussed suicide and drug issues in rural areas. We looked at extension services in terms of family life programs. They were a part of the original extension fund . As we have decreased that funding, there is an increase of the social problems in the rural areas. I was pleased to see the House put that in. I see in rural areas we have a lot of family problems but great wheat and beef. Hope that this funding can be restored.

Chairman Holmberg indicated the way to handle that question is to divide these amendments.

We can vote on Footnote 3 at the bottom of page 4 separately if you wish.

Senator Tallackson I am disappointed in soil conservation budget, over the years we have steadily declined in the help in soil conservation, districts are combining but they are still struggling

Chairman Holmberg that is why our sub committees added to this and the house did not.

Senator Krauter had three questions, the first relates to SBARE. I am trying to find where the beef center of excellence is in priorities. The response was it is in third place.

Senator Krauter indicated the second question; can you explain beef center providing a report. The response was there was an agreement with NDSU and National Cattlemen association which opened the door to a lot of grants for livestock research. As they worked together, they told us they have an agreement and all we want to do is see how successful it is to get those grants.

Senator Krauter indicated the third question is the issue of $300,000 for the parenting resource centers; in SW ND we are using these services and the struggling part is the profit margin on farming and ranching operations are tough. Often one spouse is off the farm working and it creates a void in that family structure. And when you look at what the research center is doing to make those families cohesive they need the money.

Senator Bowman indicated when we talk about rural ND; the Beef Centers are at Bismarck, Dickinson, Fargo, and Grand Forks. That's not rural to me.

Senator Krauter indicated that Dickinson is who works with networks out there.

The request will put an additional center in Minot.

Senator Mathern indicated they really want an extension agent in each county.

Senator Bowman indicated we just passed a bill for Human Services that is to take care of these family problems.

Senator Wardner indicated this is a regional program for eight counties that is education and prevention and when they get to the social services, they are into reconstruction and trying to pull it together.

Senator Mathern commented that Senator Bowman is correct, this is one of the only places we think about making sure this is a way to get at the issues before social services.

Senator Grindberg asked where we are with the greenhouse. The response is it is fully funded for phase two.

Don indicated the House took out $2 million for phase two of the greenhouse. The phase one portion has to generate $5 million and $2 million from bonding but they have only raised about $1.3 million. Phase two provides an additional $9 million; the House moved it to $7 million and this gives them an option of another $523,000. Discussion carried on about this funding.

Senator Bowman indicated his concern is like Minot where you give them permission to construct and they have to come for more money because it wasn't funded fully. If we don't fund the buildings fully, each two years they have to come in and ask for money for a building we thought we paid for.

Senator Grindberg indicated then the project has $14.5 available for Phase 1 or 2 or whatever they want to do. The response was that is the total authorization now.

Senator Grindberg questioned on section 10 the operating pool funding; Is this the first time we have done such a funding mechanism through the permanent oil trust fund for the Dickinson Research operations? The response was that most of their research comes from the oil money and the oil money has decreased, but ht money they need will be short. Even if oil goes up, they can only spend what is in their budget.

Senator Grindberg indicated then does that mean they have a normal funding stream from the permanent oil trust fund for their operations. The response was it is from their oil income.

Don stated that what happened is the Dickinson Center is on the property they own between them and the Dickinson State University has oil on the property. They have received oil money for many years. They use that money for the operations at the Dickinson Research Extension sector and as of recently the oil revenues have been going down and they received the projections after they built into their budget what they anticipated which is about $750,000 less then the budget. What the House did was to provide the operating pool from the permanent oil tax trust fund to help supplement the operations. Senator Bowman stated that the fund may be taped only to the extent that that budget. Other discussion followed.

Senator Wardner commented that the main well; the stadium well goes directly under the stadium and the college and the research center get oil royalty and it is in decline and that is why the drop of revenue in production.

Senator Grindberg asked are you comfortable with this approach?

Senator Wardner responded that we need to come to a conclusion as to how we handle the money.

Chairman Holmberg indicated when you see the Higher Education budget; the House put $900,000 in as one time spending from the permanent oil trust fund.

Don indicated there is the one time funding section

Senator Lindaas indicated the only part he has concerns about is the family part he would like to divide the question

Chairman Holmberg will vote on two parts

Senator Bowman stressed that if you appreciate what SBARE does they were ranked 9th.

The first oral vote is on everything in the amendment except footnote 3 and the $300,000 reduction.

The motion carried.

Chairman Holmberg indicated the second question is the addition of the $300,000 addition by the House. This amendment would remove that. If the vote is yes we remove the funding. If the vote is no it keeps the funding.

Don explained the implications of the vote.

A raise of hand for a yes vote was 7, all opposed was 7. The motion failed due to tie.

The amendment was approved as is.

Senator Bowman moved do pass as amended, Senator Christmann seconded. A roll call vote was taken resulting in 14 yes votes. The motion passed and Senator Bowman will carry the bill

Chairman Holmberg adjourned the hearing on HB 1020.

2007 SENATE STANDING COMMITTEE MINUTES

Bill/Resolution No. 1020

Senate Appropriations Committee

☐ Check here for Conference Committee

Hearing Date: 04-03-07

Recorder Job Number: 5684

Committee Clerk Signature Alice Delzer

Minutes:

Chairman Holmberg announced that Senator Bowman has been working on an issue regarding HB 1020, which is Experiment Station and Extension at NDSU. As you well know at times they are treated as Higher Ed and at times they are treated as state employees. There's always been a difference and typically in the past pay raises have been taken care internally. One other comment: the status of all state employees right now today is the same as what the governor recommended. After the action yesterday, the state employees got the governor's recommendation, the 4 and 4 plus the $10 million equity; Higher Education, was the governor's recommendation was the 5 and 5 without the equity money; the Experiment Station and the Extension Service was in the governor's budget, no equity money, and they have raised voices that they feel left out. Senator Bowman has been working on some scenarios as to what to do and if the body feels that something should be done to those salaries more formally and also, as I understand it, the new chancellor has on his to do list to get some structure to that whole issue of how they are treated when it comes to state employees as far as salary. There is much discussion about this issue.

Senator Grindberg had questions regarding the round table and the budget process and if we even mention percentage and salary for higher ed.

Allen Knudson explained the action taken by the Board of Higher Education in this matter.

Senator Grindberg stated his point is well made. He further commented about the 4 and 4 and the impact of HB 1020.

Senator Christmann Didn't we take an action to get involved and bring everybody up to 5 and 5? He also had questions regarding the 4 and 4 plan. He also had questions for Joe concerning the status of other universities.

Chairman Holmberg stated we did. He had questions for Joe regarding the governor's recommendation. (09.06) He shared about the action the House took regarding the salary issues. It was confirmed that the 5 and 5 started with the governor's recommendation. He also shared about testimony given earlier regarding salary adjustments. The salaries that are in the Higher Ed budget today are identical to what the governor had in his budget. He further shared about the House's action regarding the appropriation of money. There was further discussion concerning the 4 and 4 and 5 and 5 plans regarding salaries. It was stated that Sandy from OMB would need to come and explain these issues to the committee.

Chairman Holmberg asked OMB to have Sandy come to the hearing.

Senator Bowman shared that NDSU emailed him about the issues of salaries regarding educators and researchers, and the fact that NDSU has to find the salary raises internally. He has had some consultations with some people from NDSU and talked about the amendment they had done and they could use the money for either the green house or the beef research center, and gave them an option. What I actually did is took that money, I gave them $1 million in spending authority, but $100,000 to actually use towards the beef research center to get all the preliminaries done and then gave them a certain amount they need to raise their salaries to 5 and 5. That is what the amendments I did amount to.

Senator Wardner asked what he gave up and also had questions concerning the budget.

Senator Bowman stated the $524,000 that was left over after we adjusted this budget. We put it in a pool of money and said NDSU Research Department make a decision whether you want to use this for phase one of the green house or for the Beef Research Center. Now they are going to use it for salaries, that is what it boils down to.(16.03)

Chairman Holmberg said hopefully the conference committee will put some directive language someplace that the executive budget treats this parts of the agencies under the Board of Higher Education the same. If you're going to do salaries in one you should do it in the other.

Senator Mathern had questions regarding the language suggested in the amendments. More discussion followed regarding the increases in funding and salary issues.

Allen Knudson read the language in the footnote regarding SB 2003 in reference to salary increases.

Senator Grindberg had questions for Sandy regarding the 4 and 4 issue in the Ag and Experiment Station budget versus what's in Higher Ed, 5 and 5 , and up until this point with the passage of the round table we haven't been in discussion of percentages and higher salaries, so my first question is why did OMB and the executive budget come out with 5 and 5, in theory that is deviation from the principles of the round table.

Sandy, OMB stated the Higher Education system actually requested the 5 and 5 in their budget. That was just a part of their budget request and comes from the Board.

Senator Grindberg that is then the case in the last 3 or 4 bienniums, whenever they make a request makes it official.

Sandy said that there were other requests besides the 5 and 5 and they were not granted.

Senator Grindberg asked to see an official copy of that request because it really surprises him that the Higher Ed system and the Board, as sensitive and supportive of the round table as they are, would make such a request. It makes no sense.

Sandy stated she thought when they put in their parity and equity funding that's included in a part of that so we asked for how did they come up with the dollar amount, and that type of thing and this is how we based upon 5 and 5 salary increase. They used different inflationary and operating expenses, that all went into the formula.

Senator Grindberg stated it is still a deviation from the round table. I'd like to know why it made it this time to us. It's never been that way since the passage of the round table. I don't remember having these debates over percentage of salaries.

Senator Seymour commented for years Higher Ed has had a salary committee. They work with Mr. Radke and come up with a recommendation every year.

Senator Grindberg said he agreed, but it has never come up in this room as a debate. We're debating now an issue because of Ag and Experiment Station on the 4 and 4 when the 5 and 5 it had never been in the budget, we would never had had this to deal with we wouldn't be having this debate because Higher Ed system would use state general fund money and other sources of funds to decide raises they want to give institution by institution and so do the Ag and Experiment Station and now we've got an equity debate going on here that really just throws everything out the door.

Chairman Holmberg would it be an accurate statement that if the House had not gone in and removed the salary from each of those agencies we would not have that discussion because we would have never seen it.

Allen Knudson shared some information regarding this matter.(23.03).He was asked to provide more information regarding this situation.

Senator Wardner asked why did the Ag and Experiment Station only get 4 and 4 versus the university system.

Sandy said when she posed that question to Higher Ed they said this is the way it's been done in the past.

Senator Krebsbach stated we have a situation of equity. We've already approved the 5 and 5 for Higher Ed. Extension was not included. This is an issue that needs to be addressed in the future. Right now we need to address the inequity.

Senator Grindberg stated he agrees with Senator Krebsbach that if we were going to be consistent we would take the 5 and 5 out of 1003 and everyone would be the same and go home. My point is that institutions would have their general fund in their budgets. They would make their decisions on raises and not be guided by the 5 and 5 in HB 1003.

Chairman Holmberg stated there was no talking til after we restored Higher Ed to what was in the executive budget. Then the talking started.

Senator Bowman stated he is led to believe this isn't the first time this has happened. When research goes out and they find their money and the salaries go out of research. At least this amendment protects all the research dollars. I plan to propose this amendment on the floor. I thought it was fair to warn the committee about this happening. It is not what I really want, but at least this time we will go ahead and do something that will address the 5 and 5 issue. I'd rather see them take it out of the building than the research because if research is that important to the state why would you want to cut the most important thing out.

Senator Krauter had concerns about the future regarding the 5 and 5 and also suggested to maybe put Ag and Research in the equity pool and go with the 4 and 4.

Senator Bowman stated he did not want to go into a huge debate over this. He talked to Bill Goetz and they are working on this issue and they hopefully will have a new policy and get this solved before the next session.

Senator Christmann asked when budgets are initiated does requests for Ag and Extension come from the university system. What is their level of involvement in that? He had more questions regarding the funding for NDSU Ag and Experiment Station.

Sandy stated the instructions are provided by the Board of Higher Ed to all institutions on how they will submit their budget. The budgets that are submitted come in under two line items: 1. operating and 2. capital. There are guidelines they provide to the institutions. All budgets are submitted through Kathy and the university system before it comes to OMB.

Further discussion followed regarding the funding for Ag and Research Station, the fact there could or is some federal matching dollars regarding the Ag and Research station, the equity issue and the fact that they are not classified employees and whether they qualify to be included in any equity issue.

The discussion closed on HB 1020. Committee was dismissed.

78020.0201
Title.
Fiscal No. 1

Prepared by the Legislative Council staff for
Senator Bowman
March 22, 2007

PROPOSED AMENDMENTS TO ENGROSSED HOUSE BILL NO. 1020

Page 1, line 5, replace "to provide for a study; to authorize hemp seed procurement" with "to provide legislative intent; to provide for a report to the sixty-first legislative assembly"

Page 3, line 7, replace "4,214,956" with "3,914,956"

Page 3, line 8, replace "(207,238)" with "(99,438)"

Page 3, line 9, replace "4,007,718" with "3,815,518"

Page 3, line 11, replace "3,163,685" with "2,971,485"

Page 3, line 19, replace "11,002,726" with "11,025,726"

Page 3, line 21, replace "37,096" with "60,096"

Page 3, line 24, replace "10,276,066" with "10,499,150"

Page 3, line 26, replace "13,227,555" with "13,450,639"

Page 4, line 2, replace "(155,724)" with "(455,724)"

Page 4, line 3, replace "762,491" with "812,491"

Page 4, line 5, replace "3,364,839" with "3,114,839"

Page 4, line 7, replace "2,767,775" with "2,517,775"

Page 4, line 12, replace "19,478,742" with "19,282,626"

Page 4, line 14, replace "29,451,115" with "29,254,999"

Page 4, line 24, replace "41,757,455" with "41,457,455"

Page 4, line 25, replace "630,000" with "737,800"

Page 4, line 26, replace "42,387,455" with "42,195,255"

Page 4, line 28, replace "18,521,831" with "18,329,631"

Page 5, line 6, replace "27,455,663" with "27,478,663"

Page 5, line 8, replace "1,200,000" with "1,223,000"

Page 5, line 11, replace "85,732,779" with "85,955,863"

Page 5, line 13, replace "44,021,622" with "44,244,706"

Page 5, line 20, replace "3,774,816" with "3,474,816"

Page 5, line 21, replace "3,034,369" with "3,084,369"

Page 5, line 23, replace "24,870,515" with "24,620,515"

Page 5, line 25, replace "11,154,084" with "10,904,084"

Page 5, line 30, replace "76,090,929" with "75,894,813"

Page 6, line 2, replace "184,349,869" with "184,153,753"

Page 7, replace lines 29 through 31 with:

"**SECTION 9. LEGISLATIVE INTENT - BEEF RESEARCH FACILITY.** It is the intent of the sixtieth legislative assembly that if the state board of agricultural research and education and the director of the agricultural experiment station decides to use funding appropriated in subdivision 4 of section 3 of this Act for a beef research facility, a documented agreement as to the location of the facility must be provided from applicable city and county government officials.

SECTION 10. LEGISLATIVE INTENT - OPERATING POOL FUNDING. It is the intent of the sixtieth legislative assembly that the appropriation from the permanent oil tax trust fund as provided in subdivision 4 of section 3 of this Act is to be available only for providing funding for operations of the Dickinson research center and the amount provided is to be limited to the lesser of $750,000 or the amount actual oil revenues are less than budgeted for the research center for the biennium beginning July 1, 2007, and ending June 30, 2009.

SECTION 11. LEGISLATIVE INTENT - USE OF LIVESTOCK FACILITIES. It is the intent of the sixtieth legislative assembly that the agricultural experiment station consider options to ensure that the use of the livestock facilities at Dickinson, Hettinger, Carrington, and Streeter are being maximized.

SECTION 12. NATIONAL CATTLEMEN'S BEEF ASSOCIATION FUNDING - REPORT TO SIXTY-FIRST LEGISLATIVE ASSEMBLY. The agricultural experiment station shall provide a report to the sixty-first legislative assembly regarding the funding received during the biennium beginning July 1, 2007, and ending June 30, 2009, from the national cattlemen's beef association."

Page 8, remove lines 1 through 6

Page 8, line 18, replace "$9,032,750" with "$9,705,834"

Page 8, replace line 26 with:

"Main research center facilities 523,084"

Page 8, remove line 31

Page 9, line 3, replace "9,782,750" with "9,705,834"

Page 9, line 5, replace "$10,107,750" with "$8,430,834" and replace "$1,101,000" with "$1,051,000"

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	$27,479,547	$27,455,663	$23,000	$27,478,663
Less estimated income	26,255,663	26,255,663		26,255,663
General fund	$1,223,884	$1,200,000	$23,000	$1,223,000
Branch Research Centers				
Total all funds	$24,374,515	$24,870,515	($250,000)	$24,620,515
Less estimated income	13,716,431	13,716,431		13,716,431
General fund	$10,658,084	$11,154,084	($250,000)	$10,904,084
NDSU Extension Service				
Total all funds	$41,322,455	$42,387,455	($192,200)	$42,195,255
Less estimated income	23,865,624	23,865,624		23,865,624
General fund	$17,456,831	$18,521,831	($192,200)	$18,329,631
Northern Crops Institute				
Total all funds	$2,598,111	$2,673,111	$0	$2,673,111
Less estimated income	1,479,719	1,479,719		1,479,719
General fund	$1,118,392	$1,193,392	$0	$1,193,392
Main Research Station				
Total all funds	$86,698,779	$85,732,779	$223,084	$85,955,863
Less estimated income	41,261,157	41,711,157		41,711,157
General fund	$45,437,622	$44,021,622	$223,084	$44,244,706
Agronomy Seed Farm				
Total all funds	$1,230,346	$1,230,346	$0	$1,230,346
Less estimated income	1,230,346	1,230,346		1,230,346
General fund	$0	$0	$0	$0
Bill Total				
Total all funds	$183,703,753	$184,349,869	($196,116)	$184,153,753
Less estimated income	107,808,940	108,258,940		108,258,940
General fund	$75,894,813	$76,090,929	($196,116)	$75,894,813

House Bill No. 1020 - Transportation Institute - Senate Action

	EXECUTIVE BUDGET	HOUSE VERSION	SENATE CHANGES	SENATE VERSION
Transportation Institute	$27,479,547	$27,455,663	$23,000	$27,478,663
Total all funds	$27,479,547	$27,455,663	$23,000	$27,478,663
Less estimated income	26,255,663	26,255,663		26,255,663
General fund	$1,223,884	$1,200,000	$23,000	$1,223,000
FTE	43.40	43.40	0.00	43.40

Dept. 627 - Transportation Institute - Detail of Senate Changes

	RESTORES FUNDING FOR OPERATIONS [1]	TOTAL SENATE CHANGES
Transportation Institute	$23,000	$23,000
Total all funds	$23,000	$23,000
Less estimated income		
General fund	$23,000	$23,000
FTE	0.00	0.00

[1] The Senate restored funding for operations of the Upper Great Plains Transportation Institute.

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

	EXECUTIVE BUDGET	HOUSE VERSION	SENATE CHANGES	SENATE VERSION
Dickinson Research Center	$6,077,229	$6,077,229		$6,077,229
Central Grasslands Research Center	2,267,506	2,267,506		2,267,506
Hettinger Research Center	2,441,212	2,441,212		2,441,212
Langdon Research Center	1,697,293	1,697,293		1,697,293
North Central Research Center	3,524,816	3,774,816	($300,000)	3,474,816
Williston Research Center	2,884,369	3,034,369	50,000	3,084,369
Carrington Research Center	5,482,090	5,578,090		5,578,090
Total all funds	$24,374,515	$24,870,515	($250,000)	$24,620,515
Less estimated income	13,716,431	13,716,431		13,716,431
General fund	$10,658,084	$11,154,084	($250,000)	$10,904,084
FTE	95.26	96.86	0.00	96.86

Dept. 628 - Branch Research Centers - Detail of Senate Changes

	PROVIDES ADDITIONAL FUNDING FOR IRRIGATION RESEARCH POSITION [1]	REMOVES FUNDING FOR EQUIPMENT STORAGE FACILITY [2]	TOTAL SENATE CHANGES
Dickinson Research Center			
Central Grasslands Research Center			
Hettinger Research Center			
Langdon Research Center			
North Central Research Center		($300,000)	($300,000)
Williston Research Center	$50,000		$50,000
Carrington Research Center			
Total all funds	$50,000	($300,000)	($250,000)
Less estimated income			
General fund	$50,000	($300,000)	($250,000)
FTE	0.00	0.00	0.00

1 The Senate provided an additional $50,000 for costs associated with an irrigation research position at the Williston Research Center which was added by the House. This amendment provides additional funding for salaries and operating costs needed for the position.

2 The Senate removed funding added by the House for an equipment storage and maintenance shop facility at the North Central Research Center.

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

	EXECUTIVE BUDGET	HOUSE VERSION	SENATE CHANGES	SENATE VERSION
Extension Service	$40,692,455	$41,757,455	($300,000)	$41,457,455
Soil Conservation Committee	630,000	630,000	107,800	737,800
Total all funds	$41,322,455	$42,387,455	($192,200)	$42,195,255
Less estimated income	23,865,624	23,865,624		23,865,624
General fund	$17,456,831	$18,521,831	($192,200)	$18,329,631
FTE	257.86	260.46	0.00	260.46

Dept. 630 - NDSU Extension Service - Detail of Senate Changes

	ADDS FUNDING FOR SOIL CONSERVATION GRANTS [1]	ADDS FUNDING FOR SMITHSONIAN SOIL EXHIBIT [2]	REMOVES FUNDING FOR PARENTING RESOURCE CENTERS [3]	TOTAL SENATE CHANGES
Extension Service			($300,000)	($300,000)
Soil Conservation Committee	$100,000	$7,800		107,800
Total all funds	$100,000	$7,800	($300,000)	($192,200)
Less estimated income				
General fund	$100,000	$7,800	($300,000)	($192,200)
FTE	0.00	0.00	0.00	0.00

1 The Senate added $100,000 for soil conservation grants.

2 The Senate added $7,800 for costs relating to the Smithsonian soil exhibit.

[3] The Senate removed funding added by the House for statewide parenting resource centers.

House Bill No. 1020 - Main Research Station - Senate Action

	EXECUTIVE BUDGET	HOUSE VERSION	SENATE CHANGES	SENATE VERSION
Main Research Station	$86,698,779	$85,732,779	$223,084	$85,955,863
Total all funds	$86,698,779	$85,732,779	$223,084	$85,955,863
Less estimated income	41,261,157	41,711,157		41,711,157
General fund	$45,437,622	$44,021,622	$223,084	$44,244,706
FTE	348.08	348.88	0.00	348.88

Dept. 640 - Main Research Station - Detail of Senate Changes

	REMOVES FUNDING FOR INDUSTRIAL HEMP RESEARCH [1]	ADDS FUNDING FOR FACILITIES [2]	TOTAL SENATE CHANGES
Main Research Station	($300,000)	$523,084	$223,084
Total all funds	($300,000)	$523,084	$223,084
Less estimated income			
General fund	($300,000)	$523,084	$223,084
FTE	0.00	0.00	0.00

[1] The Senate removed funding added by the House for conducting industrial hemp research at the Main Research Center and removed Sections 9 and 10 of Engrossed House Bill No. 1020 relating to a hemp procurement study and authorization.

[2] The Senate added $523,084 for facilities. The State Board of Agricultural Research and Education and the director of the Agricultural Experiment Station may determine to use this funding either for the Main Research Center greenhouse project or for a proposed beef research facility. If the funding is used for a beef research facility, a documented agreement as to the location of the facility must be provided from applicable city and county ...ment officials. The total general fund authorization in the Senate version of House Bill No. 1020 is the same as the executive recor... bn.

The Senate added a section of intent providing that if the Main Research Center proceeds with a beef research center in Fargo, appropriate city and county officials agree to the location of the facility.

The Senate provided that the operating pool of $750,000 from the permanent oil tax trust fund be used for operating costs at the Dickinson Research Center and be limited to the amount oil revenues are less than budgeted for the biennium.

The Senate added a section of intent that the livestock facilities at Dickinson, Hettinger, Carrington, and Streeter be examined to ensure the use of the facilities are being maximized.

The Senate provided for the Agricultural Experiment Station to provide a report to the 61st Legislative Assembly regarding funding received from the National Cattlemen's Beef Association.

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Fiscal No. 1

Prepared by the Legislative Council staff for
Senator Bowman
March 22, 2007

3-23-07
1 of 5

PROPOSED AMENDMENTS TO ENGROSSED HOUSE BILL NO. 1020

Page 1, line 5, replace "for a study; to authorize hemp seed procurement" with "legislative intent; to provide for a report to the sixty-first legislative assembly"

Page 3, line 7, replace "4,214,956" with "3,914,956"

Page 3, line 8, replace "(207,238)" with "(99,438)"

Page 3, line 9, replace "4,007,718" with "3,815,518"

Page 3, line 11, replace "3,163,685" with "2,971,485"

Page 3, line 19, replace "11,002,726" with "11,025,726"

Page 3, line 21, replace "37,096" with "60,096"

Page 3, line 24, replace "10,276,066" with "10,499,150"

Page 3, line 26, replace "13,227,555" with "13,450,639"

Page 4, line 2, replace "(155,724)" with "(455,724)"

Page 4, line 3, replace "762,491" with "812,491"

Page 4, line 5, replace "3,364,839" with "3,114,839"

Page 4, line 7, replace "2,767,775" with "2,517,775"

Page 4, line 12, replace "19,478,742" with "19,282,626"

Page 4, line 14, replace "29,451,115" with "29,254,999"

Page 4, line 24, replace "41,757,455" with "41,457,455"

Page 4, line 25, replace "630,000" with "737,800"

Page 4, line 26, replace "42,387,455" with "42,195,255"

Page 4, line 28, replace "18,521,831" with "18,329,631"

Page 5, line 6, replace "27,455,663" with "27,478,663"

Page 5, line 8, replace "1,200,000" with "1,223,000"

Page 5, line 11, replace "85,732,779" with "85,955,863"

Page 5, line 13, replace "44,021,622" with "44,244,706"

Page 5, line 20, replace "3,774,816" with "3,474,816"

Page 5, line 21, replace "3,034,369" with "3,084,369"

Page 5, line 23, replace "24,870,515" with "24,620,515"

Page 5, line 25, replace "11,154,084" with "10,904,084"

Page 5, line 30, replace "76,090,929" with "75,894,813"

Page 6, line 2, replace "184,349,869" with "184,153,753"

Page 7, replace lines 29 through 31 with:

"**SECTION 9. LEGISLATIVE INTENT - BEEF RESEARCH FACILITY.** It is the intent of the sixtieth legislative assembly that if the state board of agricultural research and education and the director of the agricultural experiment station decide to use funding appropriated in subdivision 4 of section 3 of this Act for a beef research facility, a documented agreement as to the location of the facility must be provided from applicable city and county government officials.

SECTION 10. LEGISLATIVE INTENT - OPERATING POOL FUNDING. It is the intent of the sixtieth legislative assembly that the appropriation from the permanent oil tax trust fund as provided in subdivision 4 of section 3 of this Act is to be available only for providing funding for operations of the Dickinson research center and the amount provided is to be limited to the lesser of $750,000 or the amount actual oil revenues are less than budgeted for the research center for the biennium beginning July 1, 2007, and ending June 30, 2009.

SECTION 11. LEGISLATIVE INTENT - USE OF LIVESTOCK FACILITIES. It is the intent of the sixtieth legislative assembly that the agricultural experiment station consider options to ensure that the use of the livestock facilities at Dickinson, Hettinger, Carrington, and Streeter are being maximized.

SECTION 12. NATIONAL CATTLEMEN'S BEEF ASSOCIATION FUNDING - REPORT TO SIXTY-FIRST LEGISLATIVE ASSEMBLY. The agricultural experiment station shall provide a report to the sixty-first legislative assembly regarding the funding received during the biennium beginning July 1, 2007, and ending June 30, 2009, from the national cattlemen's beef association."

Page 8, remove lines 1 through 6

Page 8, line 18, replace "$9,032,750" with "$9,705,834"

Page 8, replace line 26 with:

"Main research center facilities 523,084"

Page 8, remove line 31

Page 9, line 3, replace "9,782,750" with "9,705,834"

Page 9, line 5, replace "$10,107,750" with "$8,430,834" and replace "$1,101,000" with "$1,051,000"

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	$27,479,547	$27,455,663	$23,000	$27,478,663
Less estimated income	26,255,663	26,255,663		26,255,663
General fund	$1,223,884	$1,200,000	$23,000	$1,223,000
Branch Research Centers				
Total all funds	$24,374,515	$24,870,515	($250,000)	$24,620,515
Less estimated income	13,716,431	13,716,431		13,716,431
General fund	$10,658,084	$11,154,084	($250,000)	$10,904,084
NDSU Extension Service				
Total all funds	$41,322,455	$42,387,455	($192,200)	$42,195,255
Less estimated income	23,865,624	23,865,624		23,865,624
General fund	$17,456,831	$18,521,831	($192,200)	$18,329,631
Northern Crops Institute				
Total all funds	$2,598,111	$2,673,111	$0	$2,673,111
Less estimated income	1,479,719	1,479,719		1,479,719
General fund	$1,118,392	$1,193,392	$0	$1,193,392
Main Research Station				
Total all funds	$86,698,779	$85,732,779	$223,084	$85,955,863
Less estimated income	41,261,157	41,711,157		41,711,157
General fund	$45,437,622	$44,021,622	$223,084	$44,244,706
Agronomy Seed Farm				
Total all funds	$1,230,346	$1,230,346	$0	$1,230,346
Less estimated income	1,230,346	1,230,346		1,230,346
General fund	$0	$0	$0	$0
Bill Total				
Total all funds	$183,703,753	$184,349,869	($196,116)	$184,153,753
Less estimated income	107,808,940	108,258,940		108,258,940
General fund	$75,894,813	$76,090,929	($196,116)	$75,894,813

House Bill No. 1020 - Transportation Institute - Senate Action

	EXECUTIVE BUDGET	HOUSE VERSION	SENATE CHANGES	SENATE VERSION
Transportation Institute	$27,479,547	$27,455,663	$23,000	$27,478,663
Total all funds	$27,479,547	$27,455,663	$23,000	$27,478,663
Less estimated income	26,255,663	26,255,663		26,255,663
General fund	$1,223,884	$1,200,000	$23,000	$1,223,000
FTE	43.40	43.40	0.00	43.40

Dept. 627 - Transportation Institute - Detail of Senate Changes

	RESTORES FUNDING FOR OPERATIONS [1]	TOTAL SENATE CHANGES
Transportation Institute	$23,000	$23,000
Total all funds	$23,000	$23,000
Less estimated income		
General fund	$23,000	$23,000
FTE	0.00	0.00

[1] The Senate restored funding for operations of the Upper Great Plains Transportation Institute.

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

	EXECUTIVE BUDGET	HOUSE VERSION	SENATE CHANGES	SENATE VERSION
Dickinson Research Center	$6,077,229	$6,077,229		$6,077,229
Central Grasslands Research Center	2,267,506	2,267,506		2,267,506
Hettinger Research Center	2,441,212	2,441,212		2,441,212
Langdon Research Center	1,697,293	1,697,293		1,697,293
North Central Research Center	3,524,816	3,774,816	($300,000)	3,474,816
Williston Research Center	2,884,369	3,034,369	50,000	3,084,369
Carrington Research Center	5,482,090	5,578,090		5,578,090
Total all funds	$24,374,515	$24,870,515	($250,000)	$24,620,515
Less estimated income	13,716,431	13,716,431		13,716,431
General fund	$10,658,084	$11,154,084	($250,000)	$10,904,084
FTE	95.26	96.86	0.00	96.86

Dept. 628 - Branch Research Centers - Detail of Senate Changes

	PROVIDES ADDITIONAL FUNDING FOR IRRIGATION RESEARCH POSITION [1]	REMOVES FUNDING FOR EQUIPMENT STORAGE FACILITY [2]	TOTAL SENATE CHANGES
Dickinson Research Center			
Central Grasslands Research Center			
Hettinger Research Center			
Langdon Research Center			
North Central Research Center		($300,000)	($300,000)
Williston Research Center	$50,000		$50,000
Carrington Research Center			
Total all funds	$50,000	($300,000)	($250,000)
Less estimated income			
General fund	$50,000	($300,000)	($250,000)
FTE	0.00	0.00	0.00

[1] The Senate provided an additional $50,000 for costs associated with an irrigation research position at the Williston Research Center which was added by the House. This amendment provides additional funding for salaries and operating costs needed for the position.

[2] The Senate removed funding added by the House for an equipment storage and maintenance shop facility at the North Central Research Center.

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

	EXECUTIVE BUDGET	HOUSE VERSION	SENATE CHANGES	SENATE VERSION
Extension Service	$40,692,455	$41,757,455	($300,000)	$41,457,455
Soil Conservation Committee	630,000	630,000	107,800	737,800
Total all funds	$41,322,455	$42,387,455	($192,200)	$42,195,255
Less estimated income	23,865,624	23,865,624		23,865,624
General fund	$17,456,831	$18,521,831	($192,200)	$18,329,631
FTE	257.86	260.46	0.00	260.46

Dept. 630 - NDSU Extension Service - Detail of Senate Changes

	ADDS FUNDING FOR SOIL CONSERVATION GRANTS [1]	ADDS FUNDING FOR SMITHSONIAN SOIL EXHIBIT [2]	REMOVES FUNDING FOR PARENTING RESOURCE CENTERS [3]	TOTAL SENATE CHANGES
Extension Service			($300,000)	($300,000)
Soil Conservation Committee	$100,000	$7,800		107,800
Total all funds	$100,000	$7,800	($300,000)	($192,200)
Less estimated income				
General fund	$100,000	$7,800	($300,000)	($192,200)
FTE	0.00	0.00	0.00	0.00

[1] The Senate added $100,000 for soil conservation grants.

[2] The Senate added $7,800 for costs relating to the Smithsonian soil exhibit.

[3] The Senate removed funding added by the House for statewide parenting resource centers.

House Bill No. 1020 - Main Research Station - Senate Action

	EXECUTIVE BUDGET	HOUSE VERSION	SENATE CHANGES	SENATE VERSION
Main Research Station	$86,698,779	$85,732,779	$223,084	$85,955,863
Total all funds	$86,698,779	$85,732,779	$223,084	$85,955,863
Less estimated income	41,261,157	41,711,157		41,711,157
General fund	$45,437,622	$44,021,622	$223,084	$44,244,706
FTE	348.08	348.88	0.00	348.88

Dept. 640 - Main Research Station - Detail of Senate Changes

	REMOVES FUNDING FOR INDUSTRIAL HEMP RESEARCH [1]	ADDS FUNDING FOR FACILITIES [2]	TOTAL SENATE CHANGES
Main Research Station	($300,000)	$523,084	$223,084
Total all funds	($300,000)	$523,084	$223,084
Less estimated income			
General fund	($300,000)	$523,084	$223,084
FTE	0.00	0.00	0.00

[1] The Senate removed funding added by the House for conducting industrial hemp research at the Main Research Center and removed Sections 9 and 10 of Engrossed House Bill No. 1020 relating to a hemp procurement study and authorization.

[2] The Senate added $523,084 for facilities. The State Board of Agricultural Research and Education and the director of the Agricultural Experiment Station may determine to use this funding either for the Main Research Center greenhouse project or for a proposed beef research facility. If the funding is used for a beef research facility, a documented agreement as to the location of the facility must be provided from applicable city and county government officials. The total general fund authorization in the Senate version of House Bill No. 1020 is the same as the executive recommendation.

The Senate added a section of intent providing that if the Main Research Center proceeds with a beef research center in Fargo, appropriate city and county officials agree to the location of the facility.

The Senate provided that the operating pool of $750,000 from the permanent oil tax trust fund be used for operating costs at the Dickinson Research Center and be limited to the amount oil revenues are less than budgeted for the biennium.

The Senate added a section of intent that the livestock facilities at Dickinson, Hettinger, Carrington, and Streeter be examined to ensure the use of the facilities are being maximized.

The Senate provided for the Agricultural Experiment Station to provide a report to the 61st Legislative Assembly regarding funding received from the National Cattlemen's Beef Association.

Date: 3/22
Roll Call Vote #: 1

2007 SENATE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 1020

Senate Appropriations Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken DP as Amend 0201

Motion Made By Bowman Seconded By Christman

Senators	Yes	No	Senators	Yes	No
Senator Ray Holmberg, Chrm	✓		Senator Aaron Krauter	✓	
Senator Bill Bowman, V Chrm	✓		Senator Elroy N. Lindaas	✓	
Senator Tony Grindberg, V Chrm	✓		Senator Tim Mathern	✓	
Senator Randel Christmann	✓		Senator Larry J. Robinson	✓	
Senator Tom Fischer	✓		Senator Tom Seymour	✓	
Senator Ralph L. Kilzer	✓		Senator Harvey Tallackson	✓	
Senator Karen K. Krebsbach	✓				
Senator Rich Wardner	✓				

Total (Yes) 14 No _____

Absent _____

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** (14 YEAS, 0 NAYS, 0 ABSENT AND NOT VOTING). Engrossed HB 1020 was placed on the Sixth order on the calendar.

Page 1, line 5, replace "for a study; to authorize hemp seed procurement" with "legislative intent; to provide for a report to the sixty-first legislative assembly"

Page 3, line 7, replace "4,214,956" with "3,914,956"

Page 3, line 8, replace "(207,238)" with "(99,438)"

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Page 5, line 8, replace "1,200,000" with "1,223,000"

Page 5, line 11, replace "85,732,779" with "85,955,863"

Page 5, line 13, replace "44,021,622" with "44,244,706"

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Page 5, line 21, replace "3,034,369" with "3,084,369"

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Page 5, line 25, replace "11,154,084" with "10,904,084"

Page 5, line 30, replace "76,090,929" with "75,894,813"

Page 6, line 2, replace "184,349,869" with "184,153,753"

Page 7, replace lines 29 through 31 with:

"**SECTION 9. LEGISLATIVE INTENT - BEEF RESEARCH FACILITY.** It is the intent of the sixtieth legislative assembly that if the state board of agricultural research and education and the director of the agricultural experiment station decide to use funding appropriated in subdivision 4 of section 3 of this Act for a beef research facility, a documented agreement as to the location of the facility must be provided from applicable city and county government officials.

SECTION 10. LEGISLATIVE INTENT - OPERATING POOL FUNDING. It is the intent of the sixtieth legislative assembly that the appropriation from the permanent oil tax trust fund as provided in subdivision 4 of section 3 of this Act is to be available only for providing funding for operations of the Dickinson research center and the amount provided is to be limited to the lesser of $750,000 or the amount actual oil revenues are less than budgeted for the research center for the biennium beginning July 1, 2007, and ending June 30, 2009.

SECTION 11. LEGISLATIVE INTENT - USE OF LIVESTOCK FACILITIES. It is the intent of the sixtieth legislative assembly that the agricultural experiment station consider options to ensure that the use of the livestock facilities at Dickinson, Hettinger, Carrington, and Streeter are being maximized.

SECTION 12. NATIONAL CATTLEMEN'S BEEF ASSOCIATION FUNDING - REPORT TO SIXTY-FIRST LEGISLATIVE ASSEMBLY. The agricultural experiment station shall provide a report to the sixty-first legislative assembly regarding the funding received during the biennium beginning July 1, 2007, and ending June 30, 2009, from the national cattlemen's beef association."

Page 8, remove lines 1 through 6

Page 8, line 18, replace "$9,032,750" with "$9,705,834"

Page 8, replace line 26 with:
"Main research center facilities 523,084"

Page 8, remove line 31

Page 9, line 3, replace "9,782,750" with "9,705,834"

Page 9, line 5, replace "$10,107,750" with "$8,430,834" and replace "$1,101,000" with "$1,051,000"

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	$27,479,547	$27,455,663	$23,000	$27,478,663
Less estimated income	26,255,663	26,255,663		26,255,663
General fund	$1,223,884	$1,200,000	$23,000	$1,223,000
Branch Research Centers				
Total all funds	$24,374,515	$24,870,515	($250,000)	$24,620,515
Less estimated income	13,716,431	13,716,431		13,716,431
General fund	$10,658,084	$11,154,084	($250,000)	$10,904,084
NDSU Extension Service				
Total all funds	$41,322,455	$42,387,455	($192,200)	$42,195,255
Less estimated income	23,865,624	23,865,624		23,865,624
General fund	$17,456,831	$18,521,831	($192,200)	$18,329,631
Northern Crops Institute				
Total all funds	$2,598,111	$2,673,111	$0	$2,673,111
Less estimated income	1,479,719	1,479,719		1,479,719
General fund	$1,118,392	$1,193,392	$0	$1,193,392
Main Research Station				
Total all funds	$86,698,779	$85,732,779	$223,084	$85,955,863
Less estimated income	41,261,157	41,711,157		41,711,157
General fund	$45,437,622	$44,021,622	$223,084	$44,244,706
Agronomy Seed Farm				
Total all funds	$1,230,346	$1,230,346	$0	$1,230,346
Less estimated income	1,230,346	1,230,346		1,230,346
General fund	$0	$0	$0	$0
Bill Total				
Total all funds	$183,703,753	$184,349,869	($196,116)	$184,153,753
Less estimated income	107,808,940	108,258,940		108,258,940
General fund	$75,894,813	$76,090,929	($196,116)	$75,894,813

House Bill No. 1020 - Transportation Institute - Senate Action

	EXECUTIVE BUDGET	HOUSE VERSION	SENATE CHANGES	SENATE VERSION
Transportation Institute	$27,479,547	$27,455,663	$23,000	$27,478,663
Total all funds	$27,479,547	$27,455,663	$23,000	$27,478,663
Less estimated income	26,255,663	26,255,663		26,255,663
General fund	$1,223,884	$1,200,000	$23,000	$1,223,000
FTE	43.40	43.40	0.00	43.40

Dept. 627 - Transportation Institute - Detail of Senate Changes

	RESTORES FUNDING FOR OPERATIONS [1]	TOTAL SENATE CHANGES
Transportation Institute	$23,000	$23,000
Total all funds	$23,000	$23,000
Less estimated income		
General fund	$23,000	$23,000
FTE	0.00	0.00

[1] The Senate restored funding for operations of the Upper Great Plains Transportation Institute.

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

	EXECUTIVE BUDGET	HOUSE VERSION	SENATE CHANGES	SENATE VERSION

Dickinson Research Center	$6,077,229	$6,077,229		$6,077,229
Central Grasslands Research Center	2,267,506	2,267,506		2,267,506
Hettinger Research Center	2,441,212	2,441,212		2,441,212
Langdon Research Center	1,697,293	1,697,293		1,697,293
North Central Research Center	3,524,816	3,774,816	($300,000)	3,474,816
Williston Research Center	2,884,369	3,034,369	50,000	3,084,369
Carrington Research Center	5,482,090	5,578,090		5,578,090
Total all funds	$24,374,515	$24,870,515	($250,000)	$24,620,515
Less estimated income	13,716,431	13,716,431		13,716,431
General fund	$10,658,084	$11,154,084	($250,000)	$10,904,084
FTE	95.26	96.86	0.00	96.86

Dept. 628 - Branch Research Centers - Detail of Senate Changes

	PROVIDES ADDITIONAL FUNDING FOR IRRIGATION RESEARCH POSITION [1]	REMOVES FUNDING FOR EQUIPMENT STORAGE FACILITY [2]	TOTAL SENATE CHANGES
Dickinson Research Center			
Central Grasslands Research Center			
Hettinger Research Center			
Langdon Research Center			
North Central Research Center		($300,000)	($300,000)
Williston Research Center	$50,000		$50,000
Carrington Research Center			
Total all funds	$50,000	($300,000)	($250,000)
Less estimated income			
General fund	$50,000	($300,000)	($250,000)
FTE	0.00	0.00	0.00

[1] The Senate provided an additional $50,000 for costs associated with an irrigation research position at the Williston Research Center which was added by the House. This amendment provides additional funding for salaries and operating costs needed for the position.

[2] The Senate removed funding added by the House for an equipment storage and maintenance shop facility at the North Central Research Center.

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

	EXECUTIVE BUDGET	HOUSE VERSION	SENATE CHANGES	SENATE VERSION
Extension Service	$40,692,455	$41,757,455	($300,000)	$41,457,455
Soil Conservation Committee	630,000	630,000	107,800	737,800
Total all funds	$41,322,455	$42,387,455	($192,200)	$42,195,255
Less estimated income	23,865,624	23,865,624		23,865,624
General fund	$17,456,831	$18,521,831	($192,200)	$18,329,631
FTE	257.86	260.46	0.00	260.46

Dept. 630 - NDSU Extension Service - Detail of Senate Changes

	ADDS FUNDING FOR SOIL CONSERVATION GRANTS [1]	ADDS FUNDING FOR SMITHSONIAN SOIL EXHIBIT [2]	REMOVES FUNDING FOR PARENTING RESOURCE CENTERS [3]	TOTAL SENATE CHANGES
Extension Service			($300,000)	($300,000)
Soil Conservation Committee	$100,000	$7,800		107,800
Total all funds	$100,000	$7,800	($300,000)	($192,200)
Less estimated income				

General fund	$100,000	$7,800	($300,000)	($192,200)
FTE	0.00	0.00	0.00	0.00

1 The Senate added $100,000 for soil conservation grants.

2 The Senate added $7,800 for costs relating to the Smithsonian soil exhibit.

3 The Senate removed funding added by the House for statewide parenting resource centers.

House Bill No. 1020 - Main Research Station - Senate Action

	EXECUTIVE BUDGET	HOUSE VERSION	SENATE CHANGES	SENATE VERSION
Main Research Station	$86,698,779	$85,732,779	$223,084	$85,955,863
Total all funds	$86,698,779	$85,732,779	$223,084	$85,955,863
Less estimated income	41,261,157	41,711,157		41,711,157
General fund	$45,437,622	$44,021,622	$223,084	$44,244,706
FTE	348.08	348.88	0.00	348.88

Dept. 640 - Main Research Station - Detail of Senate Changes

	REMOVES FUNDING FOR INDUSTRIAL HEMP RESEARCH 1	ADDS FUNDING FOR FACILITIES 2	TOTAL SENATE CHANGES
Main Research Station	($300,000)	$523,084	$223,084
Total all funds	($300,000)	$523,084	$223,084
Less estimated income			
General fund	($300,000)	$523,084	$223,084
FTE	0.00	0.00	0.00

1 The Senate removed funding added by the House for conducting industrial hemp research at the Main Research Center and removed Sections 9 and 10 of Engrossed House Bill No. 1020 relating to a hemp procurement study and authorization.

2 The Senate added $523,084 for facilities. The State Board of Agricultural Research and Education and the director of the Agricultural Experiment Station may determine to use this funding either for the Main Research Center greenhouse project or for a proposed beef research facility. If the funding is used for a beef research facility, a documented agreement as to the location of the facility must be provided from applicable city and county government officials. The total general fund authorization in the Senate version of House Bill No. 1020 is the same as the executive recommendation.

The Senate added a section of intent providing that if the Main Research Center proceeds with a beef research center in Fargo, appropriate city and county officials agree to the location of the facility.

The Senate provided that the operating pool of $750,000 from the permanent oil tax trust fund be used for operating costs at the Dickinson Research Center and be limited to the amount oil revenues are less than budgeted for the biennium.

The Senate added a section of intent that the livestock facilities at Dickinson, Hettinger, Carrington, and Streeter be examined to ensure the use of the facilities are being maximized.

The Senate provided for the Agricultural Experiment Station to provide a report to the 61st Legislative Assembly regarding funding received from the National Cattlemen's Beef Association.

2007 HOUSE APPROPRIATIONS

CONFERENCE COMMITTEE

HB 1020

2007 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. HB 1020

House Appropriations Committee
Education and Environment Division

☑ Check here for Conference Committee

Hearing Date: April 13, 2007

Recorder Job Number: 5990

Committee Clerk Signature Shirley Bianning

Minutes:

Rep. Klein called the Conference Committee meeting to order on amendment .0203 of engrossed HB 1020 by calling on **Sen. Bowman** to explain the changes that were made in the Senate.

Sen. Bowman: The research and extension part of the budget boiled down to 3 items working in consultation with Ken Grafton and others: Money for the industrial hemp research project was taken out because it seemed to be premature. The shop at Minot was the least important but a green house was added. The other project is to add $420,000 to the main research station and that was left in because there are many grants and there is a need for more space. He reviewed the other reductions and the cut in the parenting (item 3 at the top of page 5). This is questionable for what we are trying to accomplish in this bill. The last thing that happened was the pay raise rising above the 1% to bring them in line with pay raises for other University System personnel.

Sen. Holmberg: Regarding the pay raises, the employees at the research centers are not classified so their raises are not in line with other state employees. Research gets 4 and 4 and the university system gets 5 and 5. They have been left separate from everyone else and we felt we should look at treating all in a like manner.

Rep. Hawken: Spoke in support of the child resource centers. There are two states that are not covered. There are mandated classes that the legislature has said have to be provided. Minot has a center that receives no funding, and if none comes from the county it will close. It should not be totally taken off the table and there is money in other places.

Rep. Gulleson: Agreeing with Rep. Hawken. A question related to the hemp project there should be language that even though the money was taken out, the hemp research should be continued.

Rep. Klein: Regarding the research project in Minot, the Governor allowed bonding and that got delayed. I want to be sure to finish the project and put the $50,000 back in because if it isn't finished, we would have to hire another architect and start over.

Rep. Gulleson: The study and development project for the ag research center at $100,000?

Sen. Bowman: There is a 90 year old building and they are looking at building a new research center in that place. We are asking them to maximize the use of the other facilities, a plan is being developed.

Rep. Gulleson: I don't know why we would fund that. I would like to see the $100,000 go back to the parenting resource center.

Rep. Hawken: It has been suggested that a study could be done for $50,000.

Rep. Holmberg: Be cautious in taking on bids for a study, we have been ripped off before.

Rep. Klein: The $23,000 for the Upper Great Plains....

Sen. Bowman: That was a mistake, it was taken out and is being brought back in.

Sen. Lindaas: I would be in favor of putting money back into the parenting research centers.

Meeting adjourned.

2007 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. **1020**

House Appropriations Committee
Education and Environment Division

☒ Check here for Conference Committee

Hearing Date: **16 April 2007**

Recorder Job Number: **6034**

Committee Clerk Signature Jan Brindle

Minutes:

Attending: Representative Klein, Hawken, Gulleson and Senators Bowman, Holmberg, Lindaas

Chairman Klein called the meeting to order. We finished last time with the Senate going over their amendment. Are there any additions or questions we have in regard to that?

Senator Holmberg: If we want to talk about one of the issues that was mentioned, my soul was troubled all weekend when I looked at the one area having to do with salaries between Extension Experiment and the rest of higher ed. Maybe we should be looking at some language that tells NDSU and the Board that they should treat every one alike; but when you look back historically there are many instances where Higher Ed itself was treated differently than other state employees. I'm wondering if we put language like I suggested we might be creating an unanticipated problem. I find it curious that the kind of phraseology that's used says it will be taken care of. We appropriate money for research and then they find the money in order to pay salary increases. That is troubling because perhaps we are giving them too much money for research or they are not going to be needed research that we said we said should be paid for. The more I though about it the more I didn't know if there was an easy answer.

Senator Bowman: I agree 100% with what he just said. The only problem is that those salaries should be adjusted at the beginning instead of at the last minute. That's what caused the conflict in this budget because this budget was already done, and then we had to turn around and try to find the money within the budget. If we would have had time to do that when we were doing the budget and realized we were going to have to find that 1%, it would have been a lot easier to do that. The predicament I found myself in was the last thing that I funded had to be used for salaries.

Chairman Klein: When we sent the higher ed budget over to you, we had taken the 5 and 5 and moved it to 4 and 4. When this one went over to you it was the same way. It stayed at 4 and 4. It never was at 5 and 5 so I can understand where you are coming from. All of sudden you had a disconnect.

Senator Holmberg: There were some that thought that these folks at Extension were eligible for the $10.0 million equity and we found out that was not the case. We learned some things too in the process. Everyone else in state government was getting the equivalent of a 5 and 5 except for these folks and we felt an obligation to try to do something hoping we could find a better answer so it doesn't happen next time that at the last minute we're scrambling.

Chairman Klein: I understand from talking to some of the NDSU what they do. They do give them the increase but they take it out of their existing budget so that research doesn't get done.

Senator Holmberg: That's a policy that we want to be aware of and maybe come up with some kind of a good response. We're essentially under funding their salary.

Chairman Klein: The figure I got from NDSU to do the 5 and 5 was different than what you had put in.

Senator Bowman: I can answer that. I got the figure from them but we couldn't take all of the money out of that building fund and have the money to do the architectural drawing on that with $100.0. There was about $34.0 difference between that figure between the architectural drawings and the research that needs to be done for the livestock center. I figured they could find that $34.0 in the budget. I was aware that it wouldn't come out exactly right but it's as close as I could come. Is it in stone that $100.0 is needed—that's what (?) told me that would probably be needed to that and I'm not into that business, but that's exactly what they said. I set aside the $100.0 and they have to find about $34.0, I think, to make up that which is substantially less than they would have had to do if wouldn't have done it that way.

Representative Gulleson: I prefer, and I don't care if it's that money specifically, to be able to restore some part of that.

Senator Holmberg: I think when Senator Bowman worked this budget, our goal was to see if we could come in at the executive budget level; which we did.

Representative Hawken: I think that within that and without adding money. . In visiting with some people they thought there was some dollars within that budget that could be moved.

1.) $50.0 from the irrigation project because that's in the main operating line item.

2.) $50.0 from soil conservation—that's the grant.

3.) $50.0 from the horticulture

4.) $50.0 from livestock

There was some talk about the greenhouse as well. That was money that they said could potentially be moved without hurting programs. These were suggestions that were put forth.

Representative Klein: There is some money project in the OMB budget and we want to make sure that we don't. . .

Representative Hawken: There's $100.0 that could go away between OMB and this budget out of that irrigation project. What they need, I think, is $230.0.

Chairman Klein: We have in this budget the money for the irrigation specialist and we added the money for operations.

Representative Hawken: In OMB there money for the technician. They want the technician but the $50.0 for the operations they said they could cover.

Senator Bowman: Please correct me if I'm wrong, but I have never had the impression that any of those folks are advocates for soil conversation.

Representative Hawken: They were being understanding of the fact that someone. . .

Senator Bowman: No one has talked to me about it. I know that they want more by $100.0.

Chairman Klein: So you are basically looking at $200.0 to put back into parenting.

Representative Hawken: That would be one of them. That would be the ultimate goal. I'm realizing that's probably not going to happen but if it could that would be great. That's eight different centers that deal with the entire state. If the money doesn't go back in the Fargo Center is still going to run and the Grand Forks Center is still going to run, but the rest. . .

Representative Klein: In the whole budget section when we added $300.0 to Grand Forks, is that this same operation? Or different?

Representative Hawken: Totally different. That's a human service issue.

Representative Gulleson: A question for Council—how much did we add at the branch stations for additional transportation costs. How much total?

Senator Bowman: $750.0. But that's only if needed. That's the only way they can use it. Their operating comes off that oil revenue they get. When oil revenue goes down considerably, they added amendment to offset that loss if it was a loss. We added language

that said if they needed it so it couldn't be used for something other than what they needed it for.

Representative Gulleson: We added $750.0 for operating.

Chairman Klein: The way I understand it is the oil wells are kind of petering out and he had projections to show that they were going to have a shortfall.

Senator Holmberg: That's from the oil trust fund which made sense. Can we get from Council a bird's eye view of exactly where we are in this Williston project—what the amendments are and what they do.

Chairman Klein: We need to get those straitened out so we don't duplicate. The OMB will probably be as usual the last bill. We probably should take corrective action in this bill.

Senator Holmberg: We have the some issue in Commerce. There are two versions of Centers of Excellence floating around. One in Commerce and one is in OMB. We have asked Council to give us a spreadsheet on that.

Senator Bowman: When I talked to Representative Skarphol after I found out that there was money in another budget to do the same thing that we were asked to do, I was not real happy. When you're playing a game like that, to me it's not a game. We're trying to do what's right. I didn't have to be lobbied to find that there is a need for that. I just hate to see that.

Chairman Klein: So we need to combine those two. I'll get those figures for our next meeting.

Senator Bowman: if someone could find out what kind of an agreement Montana has because they have supposed to put quite a lot of money into this and this is what we were supposed to come up with for our part of it. I need to know that for a fact. It's imperative that this is something that has to be to fulfill the mission of that particular facility.

Representative Klein: I have an amendment that I would like you to look at. **(Attached.)**

Representative Monson provided this to me through the AG. It allows the AG to get involved.

(Unstructured discussion about amendment.)

Adjourned.

2007 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. **1020**

House Appropriations Committee
Education and Environment Division

☒ Check here for Conference Committee

Hearing Date: **17 April 2007**

Recorder Job Number: **6068**

Committee Clerk Signature

Minutes:

Attending: Representative Klein, Hawken, Gulleson and Senators Bowman, Holmberg and Lindaas.

Chairman Klein: I passed out an amendment (.0204) prepared by the AG yesterday. I hope you had a chance to review it. Are there any questions or discussions?

Senator Holmberg: I don't have any problem with the amendment. I think the timing is a problem. If I made a motion to accept this, it would strip all the House amendments off the bill which I'm not excited about doing at this point.

Representative Gulleson: Did he consider putting this on the OMB budget? The only other though was the amount of collections—it says it must be deposited to the AG's operating fund. I would still like us to track what those fees would be.

Chairman Klein: I don't believe that would be a problem.

Senator Bowman: Are you suggesting that if there something that opens the door for this to happen, they would address this in the future. Once the door is open and the permits are granted, I think there is a need to look at this. This is really premature for me to put money into something that we don't even know that we are going to be able to do. I never voted against doing this. It's allowable and just another alternative crop for agriculture and that's

good business. Until we actually get the release from USDA to do this, I can't see us putting any money into it. The intent language is there to do it if the permit is ever granted.

Chairman Monson: This would be money they would collect from the individual who is applying for the permit. It's not GF money; it's what they get from applications. Is that the correct interpretation?

Don: The whole key is that one line. (Unintelligible.)

Senator Lindaas: Do I understand that these monies are being collected at the present time without permission to start this kind of operation.

Chairman Klein: That's the way I understand it. These two individuals have already paid their application fee.

Representative Gulleson: Basically that's what that section says, "license is not subject to approval by the DEA." And of course it is. This is pretty significant policy language.

Chairman Klein: Maybe we need to get someone from the AG office to explain that. The other thing I've asked is that we have a spread sheet made up for our next meeting so we can see where we started the House amendments and Senate amendments and where we are at now so that we know where things got moved around.

Senator Holmberg: Did we get any additional information about Williston or is that still being reviewed?

Chairman Klein: The last I have, and I checked this morning, the House originally had added one FTE and $150.0 for a scientist. We did that in this subcommittee. The Senate then added $50.0 in operating. Then, in 2015 the OMB budget, there was $180.0 put in with $100.0 for operating and $80.0 for an FTE. I believe that's probably going to be the last bill to act on, we need to take action to straiten that out in this committee.

Representative Hawken: From my conversation with Representative Skarphol, the $80.0 for the technician is good, but the $100.0 can go away.

Chairman Klein: I think we need to do it in this bill. If we leave the $180.0 in the OMB bill then we can take out in this budget the difference of what's needed.

Representative Hawken: Wouldn't it make more sense to put it in this budget.

Chairman Klein: The only problem I have with that is that the OMB budget is going to be the last budget passed.

Senator Holmberg: If there are duplications are there the committee is made aware of it by Council.

Chairman Klein: Senator Bowman, do you know what they need?

Senator Bowman: In the letter that I received from the research center in Williston, they wanted $150.0, $30.0 and $50.0. That's the letter I received. They have to have the money to do their job or there's no sense in having a researcher.

Representative Hawken: That's one thing we need to clarify. That's the money I was told they already had that in the general budget. I will double check and clarify that.

Senator Bowman: This says add $50.0 for operating. This is from the Williston office.

Representative Hawken: Is the $80.0 in there for the technician. It's in the OMB budget.

Senator Bowman: That was scratched out. I was with the understanding we were going to take it out of the OMB budget. He said it was important that we have this extra staff. That's really what the question is—what the cost of that staff member would be.

Representative Hawken: I'll make the phone call and I'll double check on that operating money as well.

Chairman Klein: What is the bottom line figure that you were looking at?

Representative Hawken: What I would like is $200.0. There's $150.0 floating around there.

Senator Bowman: Is this a game where we just get what want or do all negotiate and compromise?

(Unstructured discussion unrelated to the bill.)

Representative Gulleson: I hope we can add some back somewhere in between maybe $150.0. I would like to keep that soil conservation level at $100.0.

Senator Holmberg: I agree.

Senator Bowman: You all understand what that extra $8.0 was for—that Smithsonian project that they are doing?

Chairman Klein: No. That one I don't understand. Are we opening a branch office?

Senator Bowman: It's a project they have to develop a project with the Smithsonian. It will cost about $10.0. They have used about $2.0 for it. It will be next to the Hope diamond in the natural history museum in DC opening in 2008. Every state will have a display of their soils. Each state is asked to contribute for their share of that a total of $10.0. People who are interested in the project have raised $2.0.

Representative Hawken: Each state has a video that covers an entire wall. North Dakota's was so good. I was just so proud of our state. These types of things are really important. They make our state seem more real.

(More discussion on items not related to the bill.)

Senator Holmberg: For this time we have resolved this but I don't know if you want to say that they have to be the same because there are many occasions where we have done different levels of compensation for state employees versus higher ed. We want to give them flexibility but I think we also want to watch them carefully to make sure they don't leave people. . .

Chairman Klein: Let me go back to that floor amendment that you made. How much GF was put in for that 5 and 5?

Senator Bowman: $436.0, maybe. We were about $30.0 short. . .

Don: $423.0.

Senator Lindaas: We don't want some entity dangling out there and not have a home as far as underlining what their salary should be.

Senator Holmberg: Their home is NDSU and Higher Ed. But, this is the first time that we have as a Legislature taken care of it. Maybe that message by itself will be enough to alert them in two years.

Representative Hawken: (Unable to hear.)

Representative Gulleson: Was it in the budget that was proposed by NDSU? The executive budget? Where did the two-tier happen?

Senator Bowman: The 4 and 4 initially was in the executive budget because it was in this budget when we started on the budget. The problem we had was after the 5 and 5 was passed then they have to find the 5 and 5 in the budget. The way it worked, according to what I was told, they go to the lowest priorities and they start taking until they get the $460.0. So all of these programs that we are trying to put money back in to would have been the first ones that they would have taken it out of. Consequently, I decided to honor their request for the money to do the research and then use the rest of that for salaries so we protected the 4-H and the leadership and the money that they added to budget would have all come out of there. I thought that was a good move, because some of things are pretty special to every one of us.

Chairman Klein: I think we will have the spreadsheet next time and then we can start agreeing or disagreeing.

Representative Hawken: So I'm going to find out about the operational money and the technician. Was there anything else we need information about?

Chairman Klein: I don't think so, I can't think of anything.

Adjourned.

2007 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. **HB 1020**

House Appropriations Committee
Education and Environment Division

☒ Check here for Conference Committee

Hearing Date: 4/18/07

Recorder Job Number: #6114

Committee Clerk Signature Shelly M. Sand

Minutes:

Chairman Klein: Opened the meeting for HB 1020. I would ask Rep. Monson to take the time to come to the podium and go through the provisions.

Rep. Monson: This amendment that I have is an amendment that the Attorney General and the Ag Commissioner and I put together to address where we are at with the agency. When Commissioner Johnson put his rules in place for the ND licenses it did have in there that our license would only go into effect once the DPA has also issued their license. That is creating a bit of a problem because DPA is dragging their feet to the point where they say it will take up to seven weeks for them to decide if our license is OK. What happens is that this is a one time, non refundable fee that we pay in January for the DPA to look at this. By the time they get around to doing all the background checks and so on it has gotten to the point where it is too late to plan the fund. Nothing is going to happen again this year. With this amendment it would strike that administrative law after it was put into place that says ND's license is good enough. Obviously any farmer including myself that has applied for an industrial hemp license and received it from ND is not going to go out and plant the industrial hemp without the blessing of the EA. This does lay the groundwork at least for any ND license holder to potentially seek some litigation against the DEA. This was done in conjunction with Commissioner Johnson

and the Attorney General. This is certainly some house cleaning because this bill had reference to industrial hemp. That is why it has to be put on this bill at this time. If you have any questions on that particular amendment I would be happy to answer them.

Sen. Bowman: Has any other state ever been granted authority to plant this?

Rep. Monson: I got an email and forwarded it to the Attorney General and to Mr. Johnson. There is an outfit in California that claims that they are currently growing not just industrial hemp but medical marijuana with the blessing of the DEA in both California and Arizona. They are doing it because they pay taxes. It seems kind of bogus but they have been in contact with Commissioner Johnson's office and the Attorney General's office. We have gotten several emails from this office. They say that the DEA licenses it and you just have to pay your taxes and you are fine. We don't believe it but we think that we better go with the more legal route which is this one. That is where we are at.

Sen. Lindaas: I am a little confused on this. Is the DEA approving hemp production at the present time? I thought that they weren't going to go along with this and that we were waiting for their approval.

Rep. Monson: At this time the DEA is reviewing two license applications sent in by the ND license holders. They said it is going to take seven weeks or more. They have to print it and all kinds of stuff like that. If it takes another month or so it is going to be too late for me to go to Canada, get my seed and bring it back. I have actually got two licenses in. One is to import the seed from Canada to plant the seed. The DEA is probably going to drag it out until June. Even though they might say Ok I have no place to go. We are thinking that this would help us to put some pressure on the DEA and say that ND has done everything that the recipient had to do. You are harming our farmers by not acting on this quicker and putting on reasons. By just

adding this sentence: A license required by this section is not conditioned on our subject to review by the United States Drug Enforcement Agency. It adds this sentence. It does strike something in the industrial area.

Rep. Klein: The Attorney Generals area?

Rep. Monson: The Ag Commissioners.

Sen. Holmberg: It appears that they are concerned with the language being so broad that we would just be inviting people to do this.

Sen. Bowman: Have you thought about delaying this to get it done right so that we don't have any questions. I don't think there is any opposition to me by not allowing this to happen. To allow it to happen, contrary to federal law, puts us in a precarious situation. If we go around the federal law and then they come back to us and shut the doors down, what do we gain? It would cause hardship for people.

Rep. Monson: Right now the other farmers and I are out about approximately $4,000. If nothing happens this year we are going to try to do this again and pay another $4,000. Frankly I think they can keep on playing the delay tactic. With that little section in there that says we can't do anything without the license they have got us. I can assure you that I am not going to go out and plant industrial hemp just because I hold a ND license. If the DEA says no you can't, because they can come in and confiscate my farm or whatever, then I have to defend that. I am not going to and I know the other farmers aren't going to risk their farms. Even if this is put into place we won't risk this. I'm not going to plant the industrial hemp even though the Ag Commissioners license says I can. If the DEA tells me in June that I can't, and in July says I can, what good does it do me? What I am trying to do here is to strike that part of it out of the administrative rules. Then we can go ahead. I can then potentially sue them. I'm not going to

put the seed in the ground or do anything illegal. I am going to force the DEA to have to address it and say that this is why we aren't letting you plant. I guess what really makes me irritated is the fact that someone in California and Arizona is growing the real stuff. They are paying some kind of a tax on it and by doing that they are getting around it. We don't have any place in our law to allow us to do that. I'm not going to go up.

Rep. Hawken: If there was a law, who would be sued?

Rep. Monson: The DEA would be sued by me. The city and state aren't doing anything wrong. The license is in accordance with our law. If I went out and planted it anyway just because I have a ND license the DEA would be suing me or taking away my farm. I'm certainly not going to do that. If anyone is going to get sued it would be the farmer suing. We still probably can without this language. With this language in our administrative rules DEA has to stand and say that we have rules. Even though we have a ND license, until the DEA lets you do it you can't plant the hemp. By taking that out, the DEA can't do that. The state does not need to get sued. It won't cost the state any money.

Sen. Lindaas: Has this amendment been in any other bill or is this a new amendment that hasn't had a hearing?

Rep. Monson: This is it. It is a one liner. I would point out that it is just a one line take.

Rep. Klein: I would think it is appropriate in this bill or the Ag bill.

Sen. Holmberg: I move the amendment.

Rep. Hawken: I second that.

Rep. Klein: We will take a roll call vote. It passes 6-0-0. The amendment is adopted. On the spreadsheet before you, are there any particular questions or discussion you would like to

have? I intend to prepare a tabulate of amendments that I would be ready to present at the next meeting.

Sen. Holmberg: Tammy Dolan presented some information on the issue of salaries at NDSU vs. Extension. Kathy McDonald from the board office responded to some of that. She is going to email all of you the email so you can read this.

Kathy McDonald: After listening to the last couple of conference committees we had a concern regarding the different salaries that were in the budget. What I interpreted is that we are requesting different wages. I would just like to clarify how that process is done. One of the things is that the rest of higher Ed and our salary increases in that. Those salaries aren't included in the pay plan. When the board sees the different proponents of it they estimated a 5% salary increase for higher Ed employees. That budget is submitted separately. This is an extensions budget that is funded through the pay plan as the rest of the other state employees are. At that time the governor wanted a 4% salary increase.

Rep. Klein: At that time was their consideration to have a pool for these particular employees like we did for PERS? An equity pool or whatever you want to call it?

Kathy McDonald: It is my understanding that when the governor funded that compensation package for the rest of the state employees that it was just an oversight. The research extension boards were left out of that. I think it is the language in there. The $10 million pool said classified employees. They are under a broadband system so they didn't fit within there. That was my understanding.

Tammy Dolan: That is correct. They are classified employees in many agencies that are not part of that. That is correct.

Rep. Klein: So they can't participate in the pool?

Tammy Dolan: Right.

Kathy McDonald: Basically what I did was send an email to Sen. Holmberg. I sent it to Tammy and she responded by saying that one thing that could be done is that the budget requests for extension and experimentation could include the salary request as the rest of higher ed employees are. OMB would analyze that at the same time in conjunction with the bill. One other thing that I would say is that this amendment under the legal circumstances has not been far off with what the legislator has funded. In the current biennium what was included in the request was for higher education and the rest was the employees that got a 3 and 3. I think this is an unusual circumstance. Because of that $10 million equity, when you combine that they are at 5%. The email that Tammy sent talked about that as well as the difference in funds available with higher education.

Sen. Holmberg: If the legislator wanted to ensure that next time the board would submit that to OMB that they would treat them all the same. Then OMB would come up with their plan. Is there anything we have to do in statute?

Tammy Dolan: I don't believe anything has to be done. I don't think there is anything you have to say or change into statute to allow that to happen. It has become a prominent issue.

Rep. Klein: I know the issue came up when we first appeared before the sub committee. I asked a question. At that time they weren't included. I wondered why because it was just kind of passed over. We certainly felt that we were operating out of the same office. Then I was assured by some of the management people that they would take care of it internally. I didn't worry about it until I got to talking to the individuals. They said how they do it internally is to

take it out of our budget. Some other things had to give. The college came down and said here is what you have to come up with to meet this.

Sen. Holmberg: I'm sure the board is well aware of that now?

Rep. Klein: We will have copies of that available too.

Sen. Bowman: I want to clear up some language. The language for the livestock research facility of $100,000 is for the design and engineering plans for that project, not for a study. They already know what they want. The money then goes into the design and engineering plan. There was a lot of this information out there last time. It has to be in language so they understand.

Rep. Klein: Yes I believe that is a good change we can make. I hope to have a sheet together next time we meet. The meeting is adjourned.

2007 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. **1020**

House Appropriations Committee

☒ Check here for Conference Committee

Hearing Date: **19 April 2007**

Recorder Job Number: **6165**

Committee Clerk Signature

Minutes:

Attending: Representatives Klein, Hawken, Gulleson and Senators Bowman Holmberg, Lindaas

Chairman Klein: The way I see it, there are a number of things to iron out. There are two main items. 1.) What's going on in the Williston irrigation project? 2.) The parenting resource center.

Representative Hawken: I think everyone knows how important I feel this is. It started at $400.0. I would like to see it at $200.0. The rationale behind this is there are some grants that are available and that is a matching number. A reminder that we currently have five parenting resource centers; they are located Fargo, Grand Forks, Bismarck, Dickinson, and Minot. The first four do receive some funding. The Minot one is that they want to be helping. County people have helped with that one. The hope was to add two more for the western part of the state. We have mandated through the judiciary things that parents must do when they are involved with the court system and when they have been involved with drug kinds of situations. The parenting resource centers were one the ones tasked with providing this information. The problem arises when it becomes it distance issue. To date in this session, we have not done a tremendous amount for children or families and I would like us to do

something. This program happens to be excellent. They take one dollar and make it stretch to 10 times.

Senator Bowman: I know all the things we talked about in moving this money around. I want to see the amendments before I make up my mind. If we take $73.0 off the Great Plains and northern crops, part of that has to go to meet salaries. If we use part of that for salaries I can justify doing that. We did not take any money out of those two budgets. They should be treated no differently than the research centers. You wanted your shop up there. You wanted the extra $50.0 for that other project to finish the greenhouse and I put that in there. I don't know what you put down for Williston after we had our discussion. We had $300.0 for that for 2 FTEs. I don't know if they decided to change that or not. When we got done and I did my numbers, and I don't have everything on my list, I only $93.0 left over for salaries and parenting. I have to see what we have done with this figure to address the two concerns I have before I commit myself to any figure.

Representative Hawken: Obviously there have been some meetings where I was not in attendance. I'm hearing about things for the very first time from Senator Bowman. I have not heard anything about northern crops nor Great Plains or transportation. I find that a little concerning because I thought we were all members of this conference committee.

Senator Bowman: When you are in charge of something like this one of the things you have to do when you are impacting someone's budget, you have to talk to those people. I had an opportunity to talk about trying to find some money in this budget for what you are concerned about and I hope you don't hold that against me.

Representative Hawken: I don't at all. We, in this committee, had not talked about adding back in the shop in Minot at all. We hadn't talked about Great Plains and transportation. A memo or an email that's all that would be necessary but I do think that would be nice.

Senator Bowman: That will all be discussed before any thing is done—trying to figure out some of the concerns so that we can put together a budget that we can all go home with and feel like we've tried to address it. That's all we can do.

Representative Gulleson: I have a question for Council. From where this budget is now compared with the Governor's recommendations, what's the bottom line increase?

Don Wolf: The Senate version is exactly the same GF amount as the executive budget.

Representative Gulleson: What items included here were not included in the executive recommendations.

Chairman Klein: The Williston bank, the salaries, the storage, soil conservation, parenting. We took out the hemp thing.

Wolf: The beef research facility engineering plans for $100.0, the horticulturist.

Chairman Klein: The Governor's budget also did not have the addition we did on the waste management.

Wolf: The $750.0 for the operating pool.

Senator Bowman: That's only if needed and from the permanent oil trust fund.

Chairman Klein: The projections we got from the oil people said that it was going to go that way. I still think those are the two key items.

Representative Hawken: I do think we need to add in a couple of the other ones. I'm not sure what the plan is for northern crops and Great Plains.

Chairman Klein: Let me lay this out and we'll hack away at it. For Great Plains there was $23.0. We took it out, the Senate restored it after visiting with the people involved so we didn't think that was a major issue. That's back in as GF.

At Northern crops, we added some money that was not in the budget--$75.0 for extraordinary repairs. We thought we could take $50.0 out of there. That wasn't in the governor's budget or in their original request.

We talked to the people involved and they thought there was some in the horticulturist's position that we could remove.

We talked in general about the possibility of reducing the soil conservation grants. We didn't come to a resolution there, but that was discussed. It was not on the priority list. We were going to put that out as an item of discussion. It just hadn't showed up and then all of sudden you (Sen Bowman) had put it in.

Senator Bowman: They don't have any one to lobby for them, that's just a line item in the budget. They came to us and asked us for $200.0 when we had the hearing and I added $100.0. That was requested in the Senate.

Chairman Klein: I don't recall that was a major issue in the House. That will be an item of discussion. Those are the reductions. I also had on here, and I discussed that with Senator Bowman, that beef research center design and engineering whether they needed all that money and their might be some room in there. That's another item I was going to throw out for discussion.

Those are the areas I thought had some room for reductions.

Representative Gulleson: What about the shop—the storage shed?

Representative Klein: There are some requirements there that came up where they usually stored it—and we may not be able to use it. The main thing that happens that we weren't aware of was that Williston thing and that's the one that kind of bent this budget out of whack. Not that's its not needed, but it was not in the original governor's budget and therefore kind of jilted this budget out of whack.

Representative Gulleson: When I talked to Bob he said we could take $100.0 in operating out of there.

Chairman Klein: We're going to put some money in here and he's going to take it out of the OMB budget.

Representative Hawken: The greenhouse in Minot was that another issue for discussion.

Chairman Klein: That was in the governor's budget and we had taken $50.0 out and we had let that contract in alternates and we funded alternates 1 and 2. To finish the project, we need that money back in. There were 7 alternates and we funded 1 and 2. We don't have enough money to finish the project.

Representative Hawken: Would that be like NDSU with the $2.0 million out of their greenhouse so they won't have enough money for phase 2? Just a comment.

Chairman Klein: We visited with those people and they're not unhappy with what we did—putting the previous money in and allowing them proceed.

Representative Hawken: I am aware of that. I was making attempt at humor, because it is the same thing.

Chairman Klein: There is a difference. That is under construction. The bids have been let. If we stop now, we start over.

Senator Bowman: One thing that I also learned is that the total dollars that were subtracted in the House to the 3 major construction projects for Hettinger, Carrington, and Minot was $200.0. This probably makes their last priority impossible to do. So redirecting that balance that was left there and putting that in to the shop rather than the other projects would free up some dollars and that's what we're looking to try do—to free up some dollars for these other items that we're concerned about. We added the $300.0, at least I did, and then the $50.0 to finish the other projects so they are going to have the money to do it and pay for it. This idea of not giving them enough money to complete them and then having the additional cost in the next biennium is not good business. It costs us way more to do that. If we can fund these at the proper level and have them paid for then we are going to be ahead in the long run.

Chairman Klein: There were 3 construction projects: Hettinger, Minot, and Carrington. The priority was Carrington, Hettinger, and Minot. Since we took $200.0 out, Minot is not going to get their project.

Senator Bowman: That's right. In return for that we looked at the other project and felt that would be a better investment as this time then the major expense.

Representative Hawken: When exactly was the new building built in Minot for the exemption?

Chairman Klein: It was finished in '97.

Representative Gulleson: Back to the $100.0 for the main research to study and develop the plans and basically move the research farm, I really think that in light of the decisions that we have to make in here, that's not money we need to be spending right now. It would be so low on the priority and if they have some thoughts on what they want to do, it's not going to take $100.0 to figure that out. We had a discussion on the Ag budget regarding Pride of Dakota and we couldn't come up with $50.0 to support businesses all over the state but here we are going NDSU $100.0 just to plan for what they want to do. I think it's completely unnecessary right now.

Senator Bowman: Well, it might be unnecessary for some people but if you look underneath the priorities I believe that's the 3rd highest priority down there. That tells me it's something that they want to be able to do the drafting, get the design done, and then do the engineering on it. If and only if within that organization they can find the money to build the new facility, they can do. They can't do anything if they don't find the money. That one line item only gives the authority; there are no dollars in that.

Representative Gulleson: So far everything is their priority. I've lost track of which ones are the highest priority and mid-priority. I'm a huge supporter of NDSU and Extension but there is

a point here where you just don't keep adding on at the end of the session—things you have decided are your newest of the new priorities.

Chairman Klein: I thought we had 2 bones of contention; now we have 3.

Senator Lindaas: I also look at that $100.0 and perhaps that could go someplace else to fill some of these other gaps. The soil conservation—I don't know where that fits on any priority, but I think that's pretty important. I've had comments from people out in the field as far as soil conservation districts that would certainly like to see additional money in there.

Chairman Klein: Would you be receptive to half of that or $50.0. Is that what you are suggesting?

Senator Lindaas: I hadn't thought of a figure exactly, but I suppose $50.0 is better than nothing. How far that will go, I can't say.

Chairman Klein: One of the problems is that in some counties a mil or whatever they use is not much money in Slope County.

Senator Holmberg: Speaking of that last session we had information shared with us on soil conservation. One of the things that is really bizarre is because of the mil levies that they can raise for those particular projects the salaries of the people that are doing the same job from county to county the differences are absolutely shocking. Some are making a heck of a lot more money doing the same identical thing. I kind of like the $100.0 we put in. That's not going to make a big difference but it's going to help and it shows that there are people in the Legislature that are very concerned about soil conservation and their importance. As Senator Bowman pointed out, they don't have a lobbyist at the table when this is all carved out.

Senator Bowman: To move this along do you want me to put what we discussed here generally into amendment form and then act it then?

Representative Hawken: We're running out of time. I think an amendment.

Senator Bowman: I made the suggestion, and this not because I personally want to do this, but I also want to get this done. I will concede to go up to $100.0 for the parenting. That's a heck of a jump for me because when I go out and justify research versus parenting, I haven't found anybody in my district that we says we need the parenting over the research. I understand its importance. I have no question about that but to me the key to agricultural success lies within the researchers that bring new products out for us to grow that makes more profitability. That keeps people on the farm and I think it makes families happier when they have money to spend. I'm willing to go that. I'm not going to live or die by it but at least we have a starting point if that will help move this process forward.

Representative Hawken: I appreciate that very much. Did you look at the horticulturist because after you two had met with Ken and Duane, they felt that was another area where we could get a little money?

Chairman Klein: They agreed we could take $50.0 out of there.

Representative Hawken: They told me we could take $100.0. So we would be adding to the budget with putting the Minot thing back in.

Chairman Klein: We would add, according to my figures, about $140.0. That's ballpark

Senator Bowman: Why don't you put the new amendments together so that we can rationalize after we get the amendments and see how it's going to affect all these budgets and then we have somewhere to go from there on? We have addressed a couple of concerns and added something to the discussion that might make this work.

Holm: One other comment: we're going $140.0 above the governor's recommended budget. Later on this week we will hopefully bringing out a budget in higher ed that's $50.0 under the governor's budget and I bet there won't be as much enthusiasm for that.

Chairman Klein: I realize that but this is part of the economic engine that drives the system.

Adjourned.

2007 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. HB 1020

House Appropriations Committee

☒ Check here for Conference Committee

Hearing Date: April 20, 2007

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Committee Clerk Signature

Minutes:

Rep. Klein: You all have the amendments before you. I had to put some numbers down. I'm sure some of these are going to be negotiated. What I want to do, if at all possible, is get this thing finished and sent out. I think we are close enough on most of these issues so I would just kind of like to walk you through this. If you go to page 2 and look at the section 7 amendment which we already included on that industrial hemp. You had the amendment on that. That was explained and all we need to do is get it into the books so that our people can sue as they want and the state is not involved. In section 10 that was the legislative intent that got put in by the Senate. I don't think there is a question or problem with that one. If you do have one speak up. Section 11 is the legislative intent on the operating pool. We are talking a little bit about what went on in Dickinson. I think you are all aware that they used to operate on their oil wells and they are running down. Section 12 is the livestock facility where they want to take a good look at utilization of those facilities. The Senate put that in and there should be no problem. I think I sat in one time when there was something going on with the beef thing.

Sen. Bowman: There are check off dollars that go to the national association. Those check off dollars go back in grant forms to research centers that do research on beef. In order to do that you have to have an agreement with them. NDSU entered into an agreement with them and

what we want to do is make sure we are getting some benefits from that agreement. There are a lot of dollars.

Rep. Klein: I think I sat in on one of those meetings. Somehow for some reason they have not applied or hadn't filled out some form. Is that done now?

Sen. Bowman: The last word I had, they had the agreement. This is the language that will follow up to make sure that the agreement is upheld. It's important to do that.

Rep. Klein: I understand. I was just wondering why it never got done and it was overlooked.

Sen. Bowman: I was assured that it was done.

Rep. Klein: Then going on to page 4, it is kind of a summary. The first one is that transportation institute that we talked about. We had taken the money out to put some money in. We had taken the $23,000 out. The next one we are talking about is the branch research centers in comparison to the Senate we added the $400,000. The extension service had the $50,000 that was taken out. We had the $23,000 out of the transportation institute on page 4. Then the $400,000 that got added to the branch research stations, then the $50,000 that got added to the extension service. On page 5 the transportation institute was ran separately. We added the 1% salary increase there which was about $10,000 general fund. We had taken $50,000 out of the North Central Research Center to finish that building and the $300,000 for the maintenance facility. At Williston we added the 50 to get them to the 250. It supposedly coming out of the OMB budget that will be zeroed out. I do have a question. I thought there were 2 FTE's for Williston.

Sen. Bowman: What did you have for the total in Williston?

Rep. Klein: $250,000.

Sen. Bowman: That is $50,000 less.

Rep. Klein: But I did talk to Rep's Skarphol and Svedjan and they were pretty much in agreement. By the time he had some operating money that he could utilize he didn't seem to have a problem with it. Rep. Skarphol was in agreement with it. That kind of takes us down to the total conference committee changes there for the one FTE that we added at Williston and the $150,000. The Soil Conservation, the Senate added $100,000. We didn't have any in there for purposes of getting it going I said we will put $50,000 in there. Would you explain?

Sen. Bowman: They requested $200,000 and we gave them $100,000. Then we gave them $8,000 for that Smithsonian project because they had raised a couple thousand dollars. We felt that it was a very important project for ND to be represented. That is why we added the $8,000 on a separate line item so it couldn't be inter mingled with any other funding. I thought it was very fair to them for giving them the $100,000. I see you cut that in half.

Rep. Klein: I guess part of my logic was that when I looked at the overall priority, it did not receive a very high priority.

Sen. Bowman: They will never get a higher priority because they aren't represented. They are just a line item in their budget. That's all it is. We have to do that if we are going to add any money. The only time it has been added is when we did that two years ago. That is the only time they have ever gotten any money from us. They are a big part of agriculture. They tie together. The conservation concerns that we have with the erosion, tree planning and water projects. If you ever get any rain you have erosion problems in your fields. It is really important to utilize that service for the long term benefit of the soil and to hold the soil so it doesn't end up in someone else's creek. Little things like that are a big part of the future of where Agriculture is going to go. I feel strongly about it.

Rep. Gulleson: One other project area that they are participating in right now that I think is really going to be part of the future is the animal feeding operations. They assist those farmers

that are looking at adding feedlots in the planning, design, and all the things that help protect the water supply. They help get these operations up and off the ground. There is a high interest in them now since we've got the ethanol plants.

Rep. Klein: I understand that and it was one of the reasons why we added that. You have no problem if we change that number from $50,000 to $100,000?

Rep. Hawken: No.

Sen. Holmberg: There are two things that I think we are having trouble with are the Smithsonian Oil Exhibit and then the Soil Conversation. Sen. Bowman is absolutely right when he says they have no one at the table. They are never going to be on the priority list of a group when they aren't even there.

Rep. Klein: Would you make a motion to change that figure?

Sen. Holmberg: Well it was $107,000. I would move that we move it back to the $100,000.

Rep. Gulleson: I second that.

Rep. Klein: So the total of oil conservation would be a total of $100,000 out of the general fund?

Rep. Hawken: One of the most important things that the research has shown is that for every dollar we spend with them we save $6-8. In one respect it is saving the state money.

Rep. Klein: How many fully operating centers do we have and where are they?

Rep. Hawken: There are six. They are in Grand Forks, Fargo, Minot, Dickinson, Mandan, and Bismarck. They are looking at two additional in the western part of the state in the Williston area and I forgot the other.

Rep. Klein: What percentage of them are funded locally?

Rep. Hawken: It varies on how the centers are funded. They do some fundraising. They have a small amount that comes to them from the feds through the Department of Human Services.

They have county money. They are hopeful that with money we give them they will be able to access some matching federal grant money. That was the reason for the original request.

Sen. Bowman: I was willing to go up to $100,000. That took a lot for me to do because where the priority was on that. They do have a voice at the table. I talked to them and they said they spend a lot of time making those priorities. It wasn't just what they did it was the fact that it took a lot of time in doing it. I use that as a basis for the decisions that I made on the Senate side. I know there was some concern about it. I was willing to try to put $100,000 in that and try to apace people here.

Sen. Lindaas: To balance things out I would ok $100,000.

Rep. Hawken: If push comes to shove having money there is a plus.

Rep. Gulleson: I too would prefer the $150,000. Maybe we can keep working our way through here and if there is one other area we could do it and adjust it up.

Sen. Holmberg: I would prefer with Sen. Bowman. I feel that I would have to talk to him on a side bar.

Rep. Klein: We will hold that thought. The next one we reduced the funding for the horticulturist position. We did talk to the folks involved and they thought they could survive. Basically going down below the Northern Crops Institute, when they came to us originally they had not requested anything. We just decided that. It was the same time that we put $100,000 more into a one time extraordinary repairs. When we looked at the percentages, research and extension in comparison to the backlog compared to the universities was being tremendously shortchanged. I don't know if you had a chance to look at those figures. So I said we will add $100,000. Well that didn't last very long. We were told before it goes over to the Senate to just cut so we took that back out. I seriously believe that we do have a very good list that they presented us of here is what we are going to do and here is what we need to do. If you have

been in some of those places you know it is kind of similar to colleges. You never have enough money to do things right so you push it aside and make due.

Sen. Bowman: Before this budget was ever put together they called and asked me what my thoughts were on it. I said to add money to take care of the maintenance and upkeep on all the facilities because for all the years I have done this budget that is one concern that they always had. There is about $1 million that goes out to the research centers for operating and equipment purchases. I think that is the highest amount since I've been here. I was very happy to see that because if you don't continue to upkeep those costs to replace gets extremely high. I said this was the year to do that and I think they addressed it in that line item.

Rep. Klein: They had a very good list.

Sen. Bowman: And very comfortable with the amount of money that went out to the research centers for that. That money is flexible.

Rep. Klein: I understand that.

Sen. Bowman: It's not money that is locked in equipment or operating.

Rep. Hawken: So did we leave any money in northern crops for maintenance?

Rep. Klein: Yes.

Sen. Bowman: Again we have not asked for it. We put it in then found out they had a need for it.

Rep. Gulleson: They receive their funds from multiple states. They may be able to address this in those budgets with the other partners.

Rep. Klein: Then moving on down it summarizes it up where we are at.

Sen. Bowman: They took $50,000 out. You reduced the amount of money according to that. On page 7 item 3 the Senate added funding for a study and development for plans for an Ag research center.

Rep. Klein: Let's go to page 7 where the only changes the Senate had was they added a 1% salary increase. They had the additional money there on the second item. It came up in discussion that one of the other places, and I think we finally addressed that so in the future they will be looked at by OMB the proper way. Then let's go to Sen. Bowman's deal where he had $100,000 in there to design the beef research facility. I reduced that by $50,000.

Sen. Bowman: The engineering and design of this project is a $1 million roughly. It is going to cost you 8-10%. I don't think anybody that has ever been involved in this would disagree with that. If you want to do a half a project, if it's $1 million and you want to do half. You put $50,000 in and you don't get the project done. If you want to get the design so it can be done you have to put enough money in there to get it done. Maybe they could get by with $80,000. If they could figure out a way to scrape up the money in there. Their budget is huge this time. There is a lot of money in that budget.

Rep. Klein: That is right it's a $20 million increase.

Sen. Bowman: Right so they could probably find some money in one of their things. I was willing to cut that down to $80,000 and try to help with the other. You have to give and take if you are going to get out of here. I was happy to see if it was for the design and engineering because that is really important instead of the study. I was just trying to respond to some questions when people thought this seemed like starting a little early before. I realize it is high on that priority list. But if something changes in the next biennium and we have design on a building that may not be what they really wanted to do. Are we maybe spending some money too early?

Rep. Klein: When we meet next time they may be building that facility. They have the authority to build it and it is one of the things that they wanted because they want to move this project forward.

Sen. Lindaas: How close are they on the $1 million?

Sen. Bowman: There is some very valuable property in this area from what I understand. They have some options on that property. If they happen to move one of those options forward they will have the money. It gives them the opportunity to look at how they can fund this thing while they are getting it engineered and designed. It is an important thing for the livestock research at NDSU.

Rep. Hawken: I was visiting with someone and I think that the current facility has a real problem so I know they wan tot move this forward. You are right. You have no clue how much design it is going to be.

Rep. Klein: Usually 8% is the engineering fee. That is kind of standard. It depends on the complexity of the facility.

Sen. Lindaas: The reason I asked about the $1 million and how close that is, but let's make it $950,000 and slide the $50,000 over to the design.

Rep. Hawken: It's not the dollars its just authority.

Sen. Bowman: The project is in the books which is $900,000. This suggestion came from SBARE. They want this project done. It has been on the burning list for a long time. They moved up to a priority three and it wasn't included. It would give us an opportunity. I would ask that we could at least put it at $80,000.

Rep. Hawken: I second that.

Rep. Klein: Are there further comments?

Rep. Gulleson: Since everybody has had to make an adjustment from where they were, would you be willing to remove $25,000 from the maintenance shop project and transfer it to the parenting resource? It would make the $300,000, $275,000. That is going to get us a really nice shock.

Rep. Klein: As you know originally we had it at $325,000. Then when we had to do the reductions we reduced it to $300,000. With construction costs nowadays and the one end we wanted to put the shop in. I do have some estimates and a design.

Rep. Gulleson: I do understand. Our shop burned down three years ago and they all just rebuilt one. It's nice and big. It's insolated.

Rep. Klein: On the second page there you will see that there is an engineer's estimate. Nowadays you don't do much building. I did go over and visit the two facilities that they put up in Williston. The one that is out at the irrigation is a real nice facility. The one that they have on the station in town is a wooden frame job. The costs of a nice one is lower because they got some local contractor that put it up.

Rep. Gulleson: I'm assuming the blue part won't be insulated?

Rep. Klein: That is correct.

Rep. Gulleson: The rest will be insolated? Would this be a Morton or a Goodman style?

Rep. Klein: Typically it would be a metal clad. Instead of using wooden beams across where you don't have the elevation for the combines and stuff.

Rep. Gulleson: They want to do the steel?

Rep. Klein: Yes. Let's go back to Rep. Hawken's area. I think that is the only item that we have left.

Sen. Bowman: I guess the bottom line to this is what we can get out of the House and Senate when we put this budget together and agree on it. Are we going to be bringing it back to do it? That is a lot that you have to look at. We have made some adjustments on it. It was absolutely balanced when it came over to the house with the general fund dollars. When we get down to the bottom line to this are we going to be awfully close to that or what?

Rep. Klein: We will be about $150,000 over the executive budget.

Rep. Hawken: In visiting with some of our colleagues we have tried to point out that we need to look past two years. This particular budget and you know this far better than I do, this is an investment in our future. What goes on in these buildings have a payback. What goes on inside them does. This group of people makes money spread further than any other group I've ever seen. We were asked to make some significant changes. I think we did our case pretty well in the fact that this isn't pedophiles in a jail. This is moving North Dakota ahead with our number one industry. I am truly hopeful that all of our caucus members on both sides will see the value of what the investment is.

Sen. Holmberg: We are wrestling in another budget in the same area by the same board. Where the urging is to cut it from $7 million or so below the governor's budget. I don't share anyone's feelings that it has something to do with the economic future of this state. I plan to vote for this but I know exactly what that budget is.

Sen. Holmberg: I move we accept the amendment with the changes.

Sen. Lindaas: I second that.

Rep. Klein: Is there any other discussion? If not call the roll. The motion passes 6-0-0. What Rep. Hawken was referring to is we got cornered today and were told to take $2.9 million out of the budget.

Attachment A

78020.0204
Title.

Prepared by the Legislative Council staff for
Representative Monson
April 9, 2007

PROPOSED AMENDMENTS TO ENGROSSED HOUSE BILL NO. 1020

That the Senate recede from its amendments as printed on pages 1416-1421 of the House Journal and pages 953-957 of the Senate Journal and that Engrossed House Bill No. 1020 be amended as follows:

Page 1, line 3, replace "section" with "sections 4-41-02 and"

Page 1, line 4, after the first "to" insert "industrial hemp licenses and "

Page 6, after line 20, insert:

"**SECTION 7. AMENDMENT.** Section 4-41-02 of the North Dakota Century Code is amended and reenacted as follows:

4-41-02. Industrial hemp - Licensure - Reporting requirements - Continuing appropriation.

1. Any person desiring to grow industrial hemp for commercial purposes shall apply to the agriculture commissioner for a license on a form prescribed by the commissioner. The application for a license must include the name and address of the applicant and the legal description of the land area to be used to produce industrial hemp. Except for employees of the agricultural experiment station or the North Dakota state university extension service involved in research and extension related activities, the commissioner shall require each applicant for initial licensure to submit to a statewide and nationwide criminal history check. The nationwide criminal history check must be conducted in the manner provided in section 12-60-24. All costs associated with the background check are the responsibility of the applicant. Criminal history records provided to the commissioner under this section are confidential. The commissioner may use the records only in determining an applicant's eligibility for licensure. Any person with a prior criminal conviction is not eligible for licensure. If the applicant has completed the application process to the satisfaction of the commissioner, the commissioner shall issue the license, which is valid for a period of one year. Any person licensed under this section is presumed to be growing industrial hemp for commercial purposes. A license required by this section is not conditioned on or subject to review or approval by the United States drug enforcement agency.

2. Each licensee must file with the commissioner documentation indicating that the seeds planted were of a type and variety certified to have no more than three-tenths of one percent tetrahydrocannabinol and a copy of any contract to grow industrial hemp. Each licensee shall notify the commissioner of the sale or distribution of any industrial hemp grown by the licensee, and the names of the persons to whom the hemp was sold or distributed.

3. The commissioner shall adopt rules to allow the industrial hemp to be tested during growth for tetrahydrocannabinol levels and to allow for supervision of the industrial hemp during its growth and harvest. To provide sufficient funds to pay costs associated with monitoring and testing

industrial hemp in the state, the commissioner shall assess each applicant a fee of five dollars per acre. The minimum fee assessed must be one hundred fifty dollars per applicant. Collections from this fee must be deposited in the attorney general's operating fund and are hereby appropriated to the attorney general to be used to enforce this chapter."

Page 9, line 6, after "3" insert ", and section 7" and replace "is" with "are"

Renumber accordingly

Job # 6114 ①
24 min

REPORT OF CONFERENCE COMMITTEE
(ACCEDE/RECEDE)

Bill Number 1020 (, as (re)engrossed): Date: 4/18/07

Your Conference Committee House Appropriations Ed & Environment

For the Senate:	YES / NO		For the House:	YES / NO	
P	Sen. Bowman	✓	Rep. Klein	✓	P
P	Sen. Holmberg	✓	Rep. Hunter	✓	P
P	Sen. Lindaas	✓	Rep. Gulleson	✓	P

recommends that the (SENATE/HOUSE) (ACCEDE to) (RECEDE from)

the (Senate/House) amendments on (SJ/HJ) page(s) _____ -- _____

____, and place _____ on the Seventh order.

____, adopt (further) amendments as follows, and place _____ on the Seventh order:

____, having been 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.

DATE: _____ Adopt amendment
CARRIER: _____

LC NO.	of amendment 0204
LC NO.	of engrossment
Emergency clause added or deleted	
Statement of purpose of amendment	

MOTION MADE BY: Holmberg

SECONDED BY: Hunter

VOTE COUNT 6 **YES** 0 **NO** 0 **ABSENT**

Revised 4/1/05

Attachment A

78020.0205
Title.
Fiscal No. 1

Prepared by the Legislative Council staff for
Representative Klein
April 19, 2007

PROPOSED AMENDMENTS TO ENGROSSED HOUSE BILL NO. 1020

That the Senate recede from its amendments as printed on pages 1416-1421 of the House Journal and pages 1230-1234 of the Senate Journal and that Engrossed House Bill No. 1020 be amended as follows:

Page 1, line 3, replace "section" with "sections 4-41-02 and"

Page 1, line 4, after the first "to" insert "industrial hemp licenses and"

Page 1, line 5, replace "for a study; to authorize hemp seed procurement" with "legislative intent; to provide for a report to the sixty-first legislative assembly"

Page 3, line 7, replace "4,214,956" with "4,014,956"

Page 3, line 8, replace "(207,238)" with "(149,438)"

Page 3, line 9, replace "4,007,718" with "3,865,518"

Page 3, line 11, replace "3,163,685" with "3,021,485"

Page 3, line 14, replace "770,428" with "720,428"

Page 3, line 16, replace "282,631" with "232,631"

Page 3, line 19, replace "11,002,726" with "11,119,654"

Page 3, line 20, replace "10,965,630" with "11,072,603"

Page 3, line 21, replace "37,096" with "47,051"

Page 3, line 24, replace "10,276,066" with "11,855,735"

Page 3, line 25, replace "(2,951,489)" with "(1,559,949)"

Page 3, line 26, replace "13,227,555" with "13,415,684"

Page 4, line 2, replace "(155,724)" with "(105,724)"

Page 4, line 3, replace "762,491" with "862,491"

Page 4, line 5, replace "3,364,839" with "3,514,839"

Page 4, line 7, replace "2,767,775" with "2,917,775"

Page 4, line 12, replace "19,478,742" with "19,634,626"

Page 4, line 13, replace "9,972,373" with "11,470,886"

Page 4, line 14, replace "29,451,115" with "31,105,512"

Page 4, line 24, replace "41,757,455" with "41,557,455"

Page 4, line 25, replace "630,000" with "687,800"

Page 4, line 26, replace "42,387,455" with "42,245,255"

Page 4, line 28, replace "18,521,831" with "18,379,631"

Page 5, line 1, replace "2,673,111" with "2,623,111"

Page 5, line 3, replace "1,193,392" with "1,143,392"

Page 5, line 6, replace "27,455,663" with "27,572,591"

Page 5, line 7, replace "26,255,663" with "26,362,636"

Page 5, line 8, replace "1,200,000" with "1,209,955"

Page 5, line 11, replace "85,732,779" with "87,312,448"

Page 5, line 12, replace "41,711,157" with "43,102,697"

Page 5, line 13, replace "44,021,622" with "44,209,751"

Page 5, line 20, replace "3,774,816" with "3,824,816"

Page 5, line 21, replace "3,034,369" with "3,134,369"

Page 5, line 23, replace "24,870,515" with "25,020,515"

Page 5, line 25, replace "11,154,084" with "11,304,084"

Page 5, line 30, replace "76,090,929" with "76,246,813"

Page 6, line 1, replace "108,258,940" with "109,757,453"

Page 6, line 2, replace "184,349,869" with "186,004,266"

Page 6, after line 20, insert:

"**SECTION 7. AMENDMENT.** Section 4-41-02 of the North Dakota Century Code is amended and reenacted as follows:

4-41-02. Industrial hemp - Licensure - Reporting requirements - Continuing appropriation.

1. Any person desiring to grow industrial hemp for commercial purposes shall apply to the agriculture commissioner for a license on a form prescribed by the commissioner. The application for a license must include the name and address of the applicant and the legal description of the land area to be used to produce industrial hemp. Except for employees of the agricultural experiment station or the North Dakota state university extension service involved in research and extension related activities, the commissioner shall require each applicant for initial licensure to submit to a statewide and nationwide criminal history check. The nationwide criminal history check must be conducted in the manner provided in section

12-60-24. All costs associated with the background check are the responsibility of the applicant. Criminal history records provided to the commissioner under this section are confidential. The commissioner may use the records only in determining an applicant's eligibility for licensure. Any person with a prior criminal conviction is not eligible for licensure. If the applicant has completed the application process to the satisfaction of the commissioner, the commissioner shall issue the license, which is valid for a period of one year. Any person licensed under this section is presumed to be growing industrial hemp for commercial purposes. A license required by this section is not conditioned on or subject to review or approval by the United States drug enforcement agency.

2. Each licensee must file with the commissioner documentation indicating that the seeds planted were of a type and variety certified to have no more than three-tenths of one percent tetrahydrocannabinol and a copy of any contract to grow industrial hemp. Each licensee shall notify the commissioner of the sale or distribution of any industrial hemp grown by the licensee, and the names of the persons to whom the hemp was sold or distributed.

3. The commissioner shall adopt rules to allow the industrial hemp to be tested during growth for tetrahydrocannabinol levels and to allow for supervision of the industrial hemp during its growth and harvest. To provide sufficient funds to pay costs associated with monitoring and testing industrial hemp in the state, the commissioner shall assess each applicant a fee of five dollars per acre. The minimum fee assessed must be one hundred fifty dollars per applicant. Collections from this fee must be deposited in the attorney general's operating fund and are hereby appropriated to the attorney general to be used to enforce this chapter."

Page 7, replace lines 29 through 31 with:

"**SECTION 10. LEGISLATIVE INTENT - BEEF RESEARCH FACILITY.** It is the intent of the sixtieth legislative assembly that before proceeding with a beef research facility, a documented agreement as to the location of the facility must be provided to the main research center from applicable city and county government officials.

SECTION 11. LEGISLATIVE INTENT - OPERATING POOL FUNDING. It is the intent of the sixtieth legislative assembly that the appropriation from the permanent oil tax trust fund as provided in subdivision 4 of section 3 of this Act is to be available only for providing funding for operations of the Dickinson research center and the amount provided is to be limited to the lesser of $750,000 or the amount actual oil revenues are less than budgeted for the research center for the biennium beginning July 1, 2007, and ending June 30, 2009.

SECTION 12. LEGISLATIVE INTENT - USE OF LIVESTOCK FACILITIES. It is the intent of the sixtieth legislative assembly that the agricultural experiment station consider options to ensure that the use of the livestock facilities at Dickinson, Hettinger, Carrington, and Streeter are being maximized.

SECTION 13. NATIONAL CATTLEMEN'S BEEF ASSOCIATION FUNDING - REPORT TO SIXTY-FIRST LEGISLATIVE ASSEMBLY. The agricultural experiment station shall provide a report to the sixty-first legislative assembly regarding the funding received during the biennium beginning July 1, 2007, and ending June 30, 2009, from the national cattlemen's beef association."

Page 8, remove lines 1 through 6

Page 8, line 18, replace "$9,032,750" with "$8,732,750"

Page 8, line 24, replace "350,000" with "400,000"

Page 8, remove line 31

Page 9, line 2, replace "75,000" with "25,000"

Page 9, line 3, replace "9,782,750" with "9,482,750"

Page 9, line 5, replace "$10,107,750" with "$7,907,750"

Page 9, line 6, after "3" insert ", and section 7" and replace "is" with "are"

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	$27,479,547	$27,455,663	$116,928	$27,572,591	$27,595,591	($23,000)
Less estimated income	26,255,663	26,255,663	106,973	26,362,636	26,362,636	
General fund	$1,223,884	$1,200,000	$9,955	$1,209,955	$1,232,955	($23,000)
Branch Research Centers						
Total all funds	$24,374,515	$24,870,515	$150,000	$25,020,515	$24,620,515	$400,000
Less estimated income	13,716,431	13,716,431		13,716,431	13,716,431	
General fund	$10,658,084	$11,154,084	$150,000	$11,304,084	$10,904,084	$400,000
NDSU Extension Service						
Total all funds	$41,322,455	$42,387,455	($142,200)	$42,245,255	$42,195,255	$50,000
Less estimated income	23,865,624	23,865,624		23,865,624	23,865,624	
General fund	$17,456,831	$18,521,831	($142,200)	$18,379,631	$18,329,631	$50,000
Northern Crops Institute						
Total all funds	$2,598,111	$2,673,111	($50,000)	$2,623,111	$2,673,111	($50,000)
Less estimated income	1,479,719	1,479,719		1,479,719	1,479,719	
General fund	$1,118,392	$1,193,392	($50,000)	$1,143,392	$1,193,392	($50,000)
Main Research Station						
Total all funds	$86,698,779	$85,732,779	$1,579,669	$87,312,448	$87,382,448	($50,000)
Less estimated income	41,261,157	41,711,157	1,391,540	43,102,697	43,127,697	(26,000)
General fund	$45,437,622	$44,021,622	$188,129	$44,209,751	$44,234,751	($25,000)
Agronomy Seed Farm						
Total all funds	$1,230,346	$1,230,346	$0	$1,230,346	$1,230,346	$0
Less estimated income	1,230,346	1,230,346		1,230,346	1,230,346	
General fund	$0	$0	$0	$0	$0	$0
Bill Total						
Total all funds	$183,703,753	$184,349,869	$1,654,397	$186,004,266	$185,677,266	$327,000
Less estimated income	107,808,940	108,258,940	1,498,513	109,757,453	109,782,453	(25,000)
General fund	$75,894,813	$76,090,929	$155,884	$76,246,813	$75,894,813	$352,000

House Bill No. 1020 - Transportation Institute - Conference Committee Action

	EXECUTIVE BUDGET	HOUSE VERSION	CONFERENCE COMMITTEE CHANGES	CONFERENCE COMMITTEE VERSION	SENATE VERSION	COMPARISON TO SENATE
Transportation Institute	$27,479,547	$27,455,663	$116,928	$27,572,591	$27,595,591	($23,000)
Total all funds	$27,479,547	$27,455,663	$116,928	$27,572,591	$27,595,591	($23,000)
Less estimated income	26,255,663	26,255,663	106,973	26,362,636	26,362,636	
General fund	$1,223,884	$1,200,000	$9,955	$1,209,955	$1,232,955	($23,000)
FTE	43.40	43.40	0.00	43.40	43.40	0.00

Dept. 627 - Transportation Institute - Detail of Conference Committee Changes

	ADDS FUNDING FOR ADDITIONAL 1 PERCENT SALARY INCREASE [1]	TOTAL CONFERENCE COMMITTEE CHANGES
Transportation Institute	$116,928	$116,928
Total all funds	$116,928	$116,928
Less estimated income	106,973	106,973
General fund	$9,955	$9,955
FTE	0.00	0.00

[1] This amendment provides for the Upper Great Plains Transportation Institute to receive a 5 percent salary increase effective July 1, 2007, and a 5 percent increase effective July 1, 2008. The conference committee agreed to the Senate action.

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	$6,077,229	$6,077,229		$6,077,229	$6,077,229	
Central Grasslands Research Center	2,267,506	2,267,506		2,267,506	2,267,506	
Hettinger Research Center	2,441,212	2,441,212		2,441,212	2,441,212	
Langdon Research Center	1,697,293	1,697,293		1,697,293	1,697,293	
North Central Research Center	3,524,816	3,774,816	$50,000	3,824,816	3,474,816	$350,000
Williston Research Center	2,884,369	3,034,369	100,000	3,134,369	3,084,369	50,000
Carrington Research Center	5,482,090	5,578,090		5,578,090	5,578,090	
Total all funds	$24,374,515	$24,870,515	$150,000	$25,020,515	$24,820,515	$400,000
Less estimated income	13,716,431	13,716,431		13,716,431	13,716,431	
General fund	$10,658,084	$11,154,084	$150,000	$11,304,084	$10,904,084	$400,000
FTE	96.26	96.86	1.00	97.86	96.86	1.00

Dept. 628 - Branch Research Centers - Detail of Conference Committee Changes

	PROVIDES ADDITIONAL FUNDING FOR IRRIGATION RESEARCH POSITION [1]	RESTORES FUNDING FOR LABORATORY AND GREENHOUSE [2]	TOTAL CONFERENCE COMMITTEE CHANGES
Dickinson Research Center			
Central Grasslands Research Center			
Hettinger Research Center			
Langdon Research Center			
North Central Research Center		$50,000	$50,000
Williston Research Center	$100,000		100,000
Carrington Research Center			
Total all funds	$100,000	$50,000	$150,000
Less estimated income			
General fund	$100,000	$50,000	$150,000
FTE	1.00	0.00	1.00

[1] The Senate provided an additional $50,000 for costs associated with an irrigation research position at the Williston Research Center which was added by the House. This amendment provides additional funding for salaries and operating costs needed for the position. The conference committee increased this appropriation to $100,000 and authorized an additional 1 FTE research technician position for the project.

[2] The conference committee restored the $50,000 appropriation removed by the House for the North Central Research Center laboratory and greenhouse project. The total appropriation for the project is $400,000.

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	$40,692,455	$41,757,455	($200,000)	$41,557,455	$41,457,455	$100,000
Soil Conservation Committee	630,000	630,000	57,800	687,800	737,800	(50,000)
Total all funds	$41,322,455	$42,387,455	($142,200)	$42,245,255	$42,195,255	$50,000

Less estimated income	23,865,624	23,865,624		23,865,624	23,865,624	
General fund	$17,456,831	$18,521,831	($142,200)	$18,379,631	$18,329,631	$50,000
FTE	257.86	260.46	0.00	260.46	260.46	0.00

Dept. 630 - NDSU Extension Service - Detail of Conference Committee Changes

	ADDS FUNDING FOR SOIL CONSERVATION GRANTS [1]	ADDS FUNDING FOR SMITHSONIAN SOIL EXHIBIT [2]	REDUCES FUNDING FOR PARENTING RESOURCE CENTERS [3]	REDUCES FUNDING FOR HORTICULTURIST POSITION [4]	TOTAL CONFERENCE COMMITTEE CHANGES
Extension Service			($150,000)	($50,000)	($200,000)
Soil Conservation Committee	$50,000	$7,800			57,800
Total all funds	$50,000	$7,800	($150,000)	($50,000)	($142,200)
Less estimated income					
General fund	$50,000	$7,800	($150,000)	($50,000)	($142,200)
FTE	0.00	0.00	0.00	0.00	0.00

1 The Senate added $100,000 for soil conservation grants. The conference committee reduced this funding to $50,000.

2 The Senate added $7,800 for costs relating to the Smithsonian soil exhibit. The conference committee agreed to this action.

3 The Senate removed the $300,000 of funding added by the House for statewide parenting resource centers. The conference committee agreed to provide $150,000 for statewide parenting resource centers.

4 The conference committee reduced funding added by the House for a horticulturist position by $50,000, from $250,000 to $200,000.

House Bill No. 1020 - Northern Crops Institute - Conference Committee Action

	EXECUTIVE BUDGET	HOUSE VERSION	CONFERENCE COMMITTEE CHANGES	CONFERENCE COMMITTEE VERSION	SENATE VERSION	COMPARISON TO SENATE
Northern Crops Institute	$2,598,111	$2,673,111	($50,000)	$2,623,111	$2,673,111	($50,000)
Total all funds	$2,598,111	$2,673,111	($50,000)	$2,623,111	$2,673,111	($50,000)
Less estimated income	1,479,719	1,479,719		1,479,719	1,479,719	
General fund	$1,118,392	$1,193,392	($50,000)	$1,143,392	$1,193,392	($50,000)
FTE	11.20	11.20	0.00	11.20	11.20	0.00

Dept. 638 - Northern Crops Institute - Detail of Conference Committee Changes

	REMOVES FUNDING FOR EXTRAORDINARY REPAIRS [1]	TOTAL CONFERENCE COMMITTEE CHANGES
Northern Crops Institute	($50,000)	($50,000)
Total all funds	($50,000)	($50,000)
Less estimated income		
General fund	($50,000)	($50,000)
FTE	0.00	0.00

1 The conference committee reduced funding added by the House for extraordinary repairs by $50,000, from $75,000 to $25,000.

House Bill No. 1020 - Main Research Station - Conference Committee Action

	EXECUTIVE BUDGET	HOUSE VERSION	CONFERENCE COMMITTEE CHANGES	CONFERENCE COMMITTEE VERSION	SENATE VERSION	COMPARISON TO SENATE
Main Research Station	$86,698,779	$85,732,779	$1,579,669	$87,312,448	$87,362,448	($50,000)
Total all funds	$86,698,779	$85,732,779	$1,579,669	$87,312,448	$87,362,448	($50,000)
Less estimated income	41,261,157	41,711,157	1,391,540	43,102,697	43,127,697	(25,000)
General fund	$45,437,622	$44,021,622	$188,129	$44,209,751	$44,234,751	($25,000)
FTE	348.08	348.88	0.00	348.88	348.88	0.00

Dept. 640 - Main Research Station - Detail of Conference Committee Changes

	REMOVES FUNDING FOR INDUSTRIAL HEMP RESEARCH [1]	ADDS FUNDING FOR ADDITIONAL 1 PERCENT SALARY INCREASE [2]	ADDS FUNDING FOR DESIGN OF BEEF RESEARCH FACILITY [3]	ADDS AUTHORITY FOR BEEF RESEARCH FACILITY [4]	TOTAL CONFERENCE COMMITTEE CHANGES
Main Research Station	($300,000)	$829,669	$50,000	$1,000,000	$1,579,669
Total all funds	($300,000)	$829,669	$50,000	$1,000,000	$1,579,669
Less estimated income		391,540		1,000,000	1,391,540
General fund	($300,000)	$438,129	$50,000	$0	$188,129
FTE	0.00	0.00	0.00	0.00	0.00

1 The Senate removed funding added by the House for conducting industrial hemp research at the Main Research Center and removed Sections 9 and 10 of Engrossed House Bill No. 1020 relating to a hemp procurement study and authorization. The conference committee agreed to this action.

2 This amendment provides for agriculture research and extension agencies to receive a 5 percent salary increase effective July 1, 2007, and a 5 percent increase effective July 1, 2008. The Main Research Center will allocate the funding between the Main Research Center, branch research centers, North Dakota State University Extension Service, Northern Crops Institute, and Agronomy Seed Farm. The conference committee increased the general fund appropriation by $25,000 and reduced the special funds spending authority by $25,000 to address the approximate $50,000 shortfall needed for the salary increase.

3 The Senate added funding for a study and development of plans for the Agricultural Research Center. The conference committee indicated the funding was for design and engineering costs for a beef research facility and reduced the funding to $50,000.

4 The Senate provided spending authority for a beef research facility. The conference committee agreed to this action.

The Senate added a section of intent providing that if the Main Research Center proceeds with a beef research center in Fargo, appropriate city and county officials agree to the location of the facility. The conference committee agreed to this action.

The Senate provided that the operating pool of $750,000 from the permanent oil tax trust fund be used for operating costs at the Dickinson Research Center and be limited to the amount oil revenues are less than budgeted for the biennium. The conference committee agreed to this action.

The Senate added a section of intent that the livestock facilities at Dickinson, Hettinger, Carrington, and Streeter be examined to ensure the use of the facilities are being maximized. The conference committee agreed to this action.

The Senate provided for the Agricultural Experiment Station to provide a report to the 61st Legislative Assembly regarding funding received from the National Cattlemen's Beef Association. The conference committee agreed to this action.

The conference committee added a section relating to licensure requirements to grow industrial hemp for commercial purposes.

House Bill No. 1020 - Agronomy Seed Farm - Conference Committee Action

The Senate did not change the House version.

(1)

REPORT OF CONFERENCE COMMITTEE
(ACCEDE/RECEDE)

Bill Number 1020 (, as (re)engrossed): Date: 4/20/07

Your Conference Committee House Appropriations

	For the Senate:	YES / NO	For the House:	YES / NO	
P	Sen. Bowman		Rep. Klein		P
P	Sen. Holmberg		Rep. Hunter		P
P	Sen. Lindaas		Rep. Gulleson		P

recommends that the (SENATE/HOUSE) (ACCEDE to) (RECEDE from)

the (Senate/House) amendments on (SJ/HJ) page(s) _____ -- _____

____, and place _____ on the Seventh order.

____, adopt (further) amendments as follows, and place _____ on the Seventh order:

____, having been 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.

DATE: _____

CARRIER: _____

Change Bill Cons. total from 50k to 100k.

LC NO. of amendment
LC NO. of engrossment
Emergency clause added or deleted
Statement of purpose of amendment

MOTION MADE BY: Holmberg

SECONDED BY: Gulleson

VOTE COUNT ___ **YES** ___ **NO** ___ **ABSENT**

Revised 4/1/05

(2)

REPORT OF CONFERENCE COMMITTEE
(ACCEDE/RECEDE)

Bill Number HB 1020 (, as (re)engrossed): Date: 4/20/07

Your Conference Committee House app. Educ & Environment

For the Senate:	YES / NO	For the House:	YES / NO
Sen. Bowman		Rep. Klein	
Sen. Holmberg		Rep. Hawken	
Sen. Lindaas		Rep. Gulleson	

recommends that the (SENATE/HOUSE) (ACCEDE to) (RECEDE from)

the (Senate/House) amendments on (SJ/HJ) page(s) _____ -- _____

____, and place _____ on the Seventh order.

____, adopt (further) amendments as follows, and place _____ on the Seventh order:

____, having been 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.

DATE: _____
CARRIER: _____

#80k funding for design on bio lec. facility instead of #30k.

LC NO. of amendment
LC NO. of engrossment
Emergency clause added or deleted
Statement of purpose of amendment

MOTION MADE BY: Bowman

SECONDED BY: Hawken

VOTE COUNT ___ **YES** ___ **NO** ___ **ABSENT**

Revised 4/1/05

(3)

REPORT OF CONFERENCE COMMITTEE
(ACCEDE/RECEDE)

Bill Number HB 1020 (, as (re)engrossed): Date: _____

Your Conference Committee House app. Educ & Environment

For the Senate:	YES / NO	For the House:	YES / NO
Sen. Bowman		Rep. Klein	
Sen. Halmberg		Rep. Hawken	
Sen. Lindaas		Rep. Gulleson	

recommends that the (SENATE/HOUSE) (ACCEDE to) (RECEDE from)

the (Senate/House) amendments on (SJ/HJ) page(s) _____ -- _____

____, and place _____ on the Seventh order.

____, adopt (further) amendments as follows, and place _____ on the Seventh order:

____, having been 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.

DATE: _____
CARRIER: _____ reduce Family Parenting 150-155

LC NO. of amendment
LC NO. of engrossment
Emergency clause added or deleted
Statement of purpose of amendment

MOTION MADE BY: Hawken

SECONDED BY: Bowman

VOTE COUNT ___ **YES** ___ **NO** ___ **ABSENT**

Revised 4/1/05

(6) 4

REPORT OF CONFERENCE COMMITTEE
(ACCEDE/RECEDE)

Bill Number HB1020 (, as (re)engrossed): Date: _____

Your Conference Committee House App. Educ & Environment

For the Senate:	YES / NO		For the House:	YES / NO	
Sen. Bowman	✓		Rep. Klein	✓	
Sen. Holmberg	✓		Rep. Hawken	✓	
Sen. Lindaas	✓		Rep. Gulleson	✓	

recommends that the (SENATE/HOUSE) (ACCEDE to) (RECEDE from)

the (Senate/House) amendments on (SJ/HJ) page(s) _____ -- _____

____, and place _____ on the Seventh order.

____, adopt (further) amendments as follows, and place _____ on the Seventh order:

____, having been 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.

DATE: _____
CARRIER: _____

adopt amendments as on vote sheets 1+2.

LC NO. of amendment
LC NO. of engrossment
Emergency clause added or deleted
Statement of purpose of amendment

MOTION MADE BY: Holmberg

SECONDED BY: Lindaas

VOTE COUNT 6 **YES** 0 **NO** 0 **ABSENT**

Revised 4/1/05

REPORT OF CONFERENCE COMMITTEE

HB 1020, as engrossed: Your conference committee (Sens. Bowman, Holmberg, Lindaas and Reps. Klein, Hawken, Gulleson) recommends that the **SENATE RECEDE** from the Senate amendments on HJ pages 1416-1421, adopt amendments as follows, and place HB 1020 on the Seventh order:

That the Senate recede from its amendments as printed on pages 1416-1421 of the House Journal and pages 1230-1234 of the Senate Journal and that Engrossed House Bill No. 1020 be amended as follows:

Page 1, line 3, replace "section" with "sections 4-41-02 and"

Page 1, line 4, after the first "to" insert "industrial hemp licenses and"

Page 1, line 5, replace "for a study; to authorize hemp seed procurement" with "legislative intent; to provide for a report to the sixty-first legislative assembly"

Page 3, line 7, replace "4,214,956" with "3,989,956"

Page 3, line 8, replace "(207,238)" with "(99,438)"

Page 3, line 9, replace "4,007,718" with "3,890,518"

Page 3, line 11, replace "3,163,685" with "3,046,485"

Page 3, line 14, replace "770,428" with "720,428"

Page 3, line 16, replace "282,631" with "232,631"

Page 3, line 19, replace "11,002,726" with "11,119,654"

Page 3, line 20, replace "10,965,630" with "11,072,603"

Page 3, line 21, replace "37,096" with "47,051"

Page 3, line 24, replace "10,276,066" with "11,885,735"

Page 3, line 25, replace "(2,951,489)" with "(1,559,949)"

Page 3, line 26, replace "13,227,555" with "13,445,684"

Page 4, line 2, replace "(155,724)" with "(105,724)"

Page 4, line 3, replace "762,491" with "862,491"

Page 4, line 5, replace "3,364,839" with "3,514,839"

Page 4, line 7, replace "2,767,775" with "2,917,775"

Page 4, line 12, replace "19,478,742" with "19,689,626"

Page 4, line 13, replace "9,972,373" with "11,470,886"

Page 4, line 14, replace "29,451,115" with "31,160,512"

Page 4, line 24, replace "41,757,455" with "41,532,455"

Page 4, line 25, replace "630,000" with "737,800"

Page 4, line 26, replace "42,387,455" with "42,270,255"

Page 4, line 28, replace "18,521,831" with "18,404,631"

Page 5, line 1, replace "2,673,111" with "2,623,111"

Page 5, line 3, replace "1,193,392" with "1,143,392"

Page 5, line 6, replace "27,455,663" with "27,572,591"

Page 5, line 7, replace "26,255,663" with "26,362,636"

Page 5, line 8, replace "1,200,000" with "1,209,955"

Page 5, line 11, replace "85,732,779" with "87,342,448"

Page 5, line 12, replace "41,711,157" with "43,102,697"

Page 5, line 13, replace "44,021,622" with "44,239,751"

Page 5, line 20, replace "3,774,816" with "3,824,816"

Page 5, line 21, replace "3,034,369" with "3,134,369"

Page 5, line 23, replace "24,870,515" with "25,020,515"

Page 5, line 25, replace "11,154,084" with "11,304,084"

Page 5, line 30, replace "76,090,929" with "76,301,813"

Page 6, line 1, replace "108,258,940" with "109,757,453"

Page 6, line 2, replace "184,349,869" with "186,059,266"

Page 6, after line 20, insert:

"**SECTION 7. AMENDMENT.** Section 4-41-02 of the North Dakota Century Code is amended and reenacted as follows:

4-41-02. Industrial hemp - Licensure - Reporting requirements - Continuing appropriation.

1. Any person desiring to grow industrial hemp for commercial purposes shall apply to the agriculture commissioner for a license on a form prescribed by the commissioner. The application for a license must include the name and address of the applicant and the legal description of the land area to be used to produce industrial hemp. Except for employees of the agricultural experiment station or the North Dakota state university extension service involved in research and extension related activities, the commissioner shall require each applicant for initial licensure to submit to a statewide and nationwide criminal history check. The nationwide criminal history check must be conducted in the manner provided in section 12-60-24. All costs associated with the background check are the responsibility of the applicant. Criminal history records provided to the commissioner under this section are confidential. The commissioner may

use the records only in determining an applicant's eligibility for licensure. Any person with a prior criminal conviction is not eligible for licensure. If the applicant has completed the application process to the satisfaction of the commissioner, the commissioner shall issue the license, which is valid for a period of one year. Any person licensed under this section is presumed to be growing industrial hemp for commercial purposes. A license required by this section is not conditioned on or subject to review or approval by the United States drug enforcement agency.

2. Each licensee must file with the commissioner documentation indicating that the seeds planted were of a type and variety certified to have no more than three-tenths of one percent tetrahydrocannabinol and a copy of any contract to grow industrial hemp. Each licensee shall notify the commissioner of the sale or distribution of any industrial hemp grown by the licensee, and the names of the persons to whom the hemp was sold or distributed.

3. The commissioner shall adopt rules to allow the industrial hemp to be tested during growth for tetrahydrocannabinol levels and to allow for supervision of the industrial hemp during its growth and harvest. To provide sufficient funds to pay costs associated with monitoring and testing industrial hemp in the state, the commissioner shall assess each applicant a fee of five dollars per acre. The minimum fee assessed must be one hundred fifty dollars per applicant. Collections from this fee must be deposited in the attorney general's operating fund and are hereby appropriated to the attorney general to be used to enforce this chapter."

Page 7, replace lines 29 through 31 with:

"**SECTION 10. LEGISLATIVE INTENT - BEEF RESEARCH FACILITY.** It is the intent of the sixtieth legislative assembly that before proceeding with a beef research facility, a documented agreement as to the location of the facility must be provided to the main research center from applicable city and county government officials.

SECTION 11. LEGISLATIVE INTENT - OPERATING POOL FUNDING. It is the intent of the sixtieth legislative assembly that the appropriation from the permanent oil tax trust fund as provided in subdivision 4 of section 3 of this Act is to be available only for providing funding for operations of the Dickinson research center and the amount provided is to be limited to the lesser of $750,000 or the amount actual oil revenues are less than budgeted for the research center for the biennium beginning July 1, 2007, and ending June 30, 2009.

SECTION 12. LEGISLATIVE INTENT - USE OF LIVESTOCK FACILITIES. It is the intent of the sixtieth legislative assembly that the agricultural experiment station consider options to ensure that the use of the livestock facilities at Dickinson, Hettinger, Carrington, and Streeter are being maximized.

SECTION 13. NATIONAL CATTLEMEN'S BEEF ASSOCIATION FUNDING - REPORT TO SIXTY-FIRST LEGISLATIVE ASSEMBLY. The agricultural experiment station shall provide a report to the sixty-first legislative assembly regarding the funding received during the biennium beginning July 1, 2007, and ending June 30, 2009, from the national cattlemen's beef association."

Page 8, remove lines 1 through 6

Page 8, line 18, replace "$9,032,750" with "$8,732,750"

Page 8, line 24, replace "350,000" with "400,000"

Page 8, remove line 31

Page 9, line 2, replace "75,000" with "25,000"

Page 9, line 3, replace "9,782,750" with "9,482,750"

Page 9, line 5, replace "$10,107,750" with "$7,907,750"

Page 9, line 6, after "3" insert "and section 7" and replace "is" with "are"

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	$27,479,547	$27,455,663	$116,928	$27,572,591	$27,595,591	($23,000)
Less estimated income	26,255,663	26,255,663	106,973	26,362,636	26,362,636	
General fund	$1,223,884	$1,200,000	$9,955	$1,209,955	$1,232,955	($23,000)
Branch Research Centers						
Total all funds	$24,374,515	$24,870,515	$150,000	$25,020,515	$24,620,515	$400,000
Less estimated income	13,716,431	13,716,431		13,716,431	13,716,431	
General fund	$10,658,084	$11,154,084	$150,000	$11,304,084	$10,904,084	$400,000
NDSU Extension Service						
Total all funds	$41,322,455	$42,387,455	($117,200)	$42,270,255	$42,195,255	$75,000
Less estimated income	23,865,624	23,865,624		23,865,624	23,865,624	
General fund	$17,456,831	$18,521,831	($117,200)	$18,404,631	$18,329,631	$75,000
Northern Crops Institute						
Total all funds	$2,598,111	$2,673,111	($50,000)	$2,623,111	$2,673,111	($50,000)
Less estimated income	1,479,719	1,479,719		1,479,719	1,479,719	
General fund	$1,118,392	$1,193,392	($50,000)	$1,143,392	$1,193,392	($50,000)
Main Research Station						
Total all funds	$86,698,779	$85,732,779	$1,609,669	$87,342,448	$87,362,448	($20,000)
Less estimated income	41,261,157	41,711,157	1,391,540	43,102,697	43,127,697	(25,000)
General fund	$45,437,622	$44,021,622	$218,129	$44,239,751	$44,234,751	$5,000
Agronomy Seed Farm						
Total all funds	$1,230,346	$1,230,346	$0	$1,230,346	$1,230,346	$0
Less estimated income	1,230,346	1,230,346		1,230,346	1,230,346	
General fund	$0	$0	$0	$0	$0	$0
Bill Total						
Total all funds	$183,703,753	$184,349,869	$1,709,397	$186,059,266	$185,677,266	$382,000
Less estimated income	107,808,940	108,258,940	1,498,513	109,757,453	109,782,453	(25,000)
General fund	$75,894,813	$76,090,929	$210,884	$76,301,813	$75,894,813	$407,000

House Bill No. 1020 - Transportation Institute - Conference Committee Action

	EXECUTIVE BUDGET	HOUSE VERSION	CONFERENCE COMMITTEE CHANGES	CONFERENCE COMMITTEE VERSION	SENATE VERSION	COMPARISON TO SENATE
Transportation Institute	$27,479,547	$27,455,663	$116,928	$27,572,591	$27,595,591	($23,000)
Total all funds	$27,479,547	$27,455,663	$116,928	$27,572,591	$27,595,591	($23,000)
Less estimated income	26,255,663	26,255,663	106,973	26,362,636	26,362,636	
General fund	$1,223,884	$1,200,000	$9,955	$1,209,955	$1,232,955	($23,000)

FTE	43.40	43.40	0.00	43.40	43.40	0.00

Dept. 627 - Transportation Institute - Detail of Conference Committee Changes

	ADDS FUNDING FOR ADDITIONAL 1 PERCENT SALARY INCREASE [1]	TOTAL CONFERENCE COMMITTEE CHANGES
Transportation Institute	$116,928	$116,928
Total all funds	$116,928	$116,928
Less estimated income	106,973	106,973
General fund	$9,955	$9,955
FTE	0.00	0.00

[1] This amendment provides for the Upper Great Plains Transportation Institute to receive a 5 percent salary increase effective July 1, 2007, and a 5 percent increase effective July 1, 2008. The conference committee agreed to the Senate action.

The House reduced the general fund appropriation for operations of the Upper Great Plains Transportation Institute by $23,884. The Senate restored $23,000 of this funding. The conference committee agreed to the House action.

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	$6,077,229	$6,077,229		$6,077,229	$6,077,229	
Central Grasslands Research Center	2,267,506	2,267,506		2,267,506	2,267,506	
Hettinger Research Center	2,441,212	2,441,212		2,441,212	2,441,212	
Langdon Research Center	1,697,293	1,697,293		1,697,293	1,697,293	
North Central Research Center	3,524,816	3,774,816	$50,000	3,824,816	3,474,816	$350,000
Williston Research Center	2,884,369	3,034,369	100,000	3,134,369	3,084,369	50,000
Carrington Research Center	5,482,090	5,578,090		5,578,090	5,578,090	
Total all funds	$24,374,515	$24,870,515	$150,000	$25,020,515	$24,620,515	$400,000
Less estimated income	13,716,431	13,716,431		13,716,431	13,716,431	
General fund	$10,658,084	$11,154,084	$150,000	$11,304,084	$10,904,084	$400,000
FTE	95.26	96.86	1.00	97.86	96.86	1.00

Dept. 628 - Branch Research Centers - Detail of Conference Committee Changes

	PROVIDES ADDITIONAL FUNDING FOR IRRIGATION RESEARCH POSITION [1]	RESTORES FUNDING FOR LABORATORY AND GREENHOUSE [2]	TOTAL CONFERENCE COMMITTEE CHANGES
Dickinson Research Center			
Central Grasslands Research Center			
Hettinger Research Center			
Langdon Research Center			
North Central Research Center		$50,000	$50,000
Williston Research Center	$100,000		100,000
Carrington Research Center			
Total all funds	$100,000	$50,000	$150,000

Less estimated income			
General fund	$100,000	$50,000	$150,000
FTE	1.00	0.00	1.00

1 The Senate provided an additional $50,000 for costs associated with an irrigation research position at the Williston Research Center which was added by the House. This amendment provides additional funding for salaries and operating costs needed for the position. The conference committee increased this appropriation to $100,000 and authorized an additional 1 FTE research technician position for the project. The total authorized for the Williston irrigation project is $250,000 from the general fund and 2 FTE positions.

2 The conference committee restored the $50,000 appropriation removed by the House for the North Central Research Center laboratory and greenhouse project. The total appropriation for the project is $400,000.

The House added $300,000 from the general fund for a maintenance shop and equipment storage facility at the North Central Research Center. The Senate removed this funding. The conference committee agreed with the House action for this project.

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	$40,692,455	$41,757,455	($225,000)	$41,532,455	$41,457,455	$75,000
Soil Conservation Committee	630,000	630,000	107,800	737,800	737,800	
Total all funds	$41,322,455	$42,387,455	($117,200)	$42,270,255	$42,195,255	$75,000
Less estimated income	23,865,624	23,865,624		23,865,624	23,865,624	
General fund	$17,456,831	$18,521,831	($117,200)	$18,404,631	$18,329,631	$75,000
FTE	257.86	260.46	0.00	260.46	260.46	0.00

Dept. 630 - NDSU Extension Service - Detail of Conference Committee Changes

	ADDS FUNDING FOR SOIL CONSERVATION GRANTS 1	ADDS FUNDING FOR SMITHSONIAN SOIL EXHIBIT 2	REDUCES FUNDING FOR PARENTING RESOURCE CENTERS 3	REDUCES FUNDING FOR HORTICULTURIST POSITION 4	TOTAL CONFERENCE COMMITTEE CHANGES
Extension Service			($175,000)	($50,000)	($225,000)
Soil Conservation Committee	$100,000	$7,800			107,800
Total all funds	$100,000	$7,800	($175,000)	($50,000)	($117,200)
Less estimated income					
General fund	$100,000	$7,800	($175,000)	($50,000)	($117,200)
FTE	0.00	0.00	0.00	0.00	0.00

1 The Senate added $100,000 for soil conservation grants. The conference committee agreed with this action.

2 The Senate added $7,800 for costs relating to the Smithsonian soil exhibit. The conference committee agreed to this action.

3 The Senate removed the $300,000 of funding added by the House for statewide parenting resource centers. The conference committee agreed to provide $125,000 for statewide parenting resource centers.

4 The conference committee reduced funding added by the House for a horticulturist position by $50,000, from $250,000 to $200,000.

House Bill No. 1020 - Northern Crops Institute - Conference Committee Action

	EXECUTIVE BUDGET	HOUSE VERSION	COMMITTEE CHANGES	COMMITTEE VERSION	SENATE VERSION	COMPARISON TO SENATE
Northern Crops Institute	$2,598,111	$2,673,111	($50,000)	$2,623,111	$2,673,111	($50,000)
Total all funds	$2,598,111	$2,673,111	($50,000)	$2,623,111	$2,673,111	($50,000)
Less estimated income	1,479,719	1,479,719		1,479,719	1,479,719	
General fund	$1,118,392	$1,193,392	($50,000)	$1,143,392	$1,193,392	($50,000)
FTE	11.20	11.20	0.00	11.20	11.20	0.00

Dept. 638 - Northern Crops Institute - Detail of Conference Committee Changes

	REMOVES FUNDING FOR EXTRAORDINARY REPAIRS [1]	TOTAL CONFERENCE COMMITTEE CHANGES
Northern Crops Institute	($50,000)	($50,000)
Total all funds	($50,000)	($50,000)
Less estimated income		
General fund	($50,000)	($50,000)
FTE	0.00	0.00

[1] The conference committee reduced funding added by the House for extraordinary repairs by $50,000, from $75,000 to $25,000.

House Bill No. 1020 - Main Research Station - Conference Committee Action

	EXECUTIVE BUDGET	HOUSE VERSION	CONFERENCE COMMITTEE CHANGES	CONFERENCE COMMITTEE VERSION	SENATE VERSION	COMPARISON TO SENATE
Main Research Station	$86,698,779	$85,732,779	$1,609,669	$87,342,448	$87,362,448	($20,000)
Total all funds	$86,698,779	$85,732,779	$1,609,669	$87,342,448	$87,362,448	($20,000)
Less estimated income	41,261,157	41,711,157	1,391,540	43,102,697	43,127,697	(25,000)
General fund	$45,437,622	$44,021,622	$218,129	$44,239,751	$44,234,751	$5,000
FTE	348.08	348.88	0.00	348.88	348.88	0.00

Dept. 640 - Main Research Station - Detail of Conference Committee Changes

	REMOVES FUNDING FOR INDUSTRIAL HEMP RESEARCH [1]	ADDS FUNDING FOR ADDITIONAL 1 PERCENT SALARY INCREASE [2]	ADDS FUNDING FOR DESIGN OF BEEF RESEARCH FACILITY [3]	ADDS AUTHORITY FOR BEEF RESEARCH FACILITY [4]	TOTAL CONFERENCE COMMITTEE CHANGES
Main Research Station	($300,000)	$829,669	$80,000	$1,000,000	$1,609,669
Total all funds	($300,000)	$829,669	$80,000	$1,000,000	$1,609,669
Less estimated income		391,540		1,000,000	1,391,540
General fund	($300,000)	$438,129	$80,000	$0	$218,129
FTE	0.00	0.00	0.00	0.00	0.00

[1] The Senate removed funding added by the House for conducting industrial hemp research at the Main Research Center and removed Sections 9 and 10 of Engrossed House Bill No. 1020 relating to a hemp procurement study and authorization. The conference committee agreed to this action.

2 This amendment provides for agriculture research and extension agencies to receive a 5 percent salary increase effective July 1, 2007, and a 5 percent increase effective July 1, 2008. The Main Research Center will allocate the funding between the Main Research Center, branch research centers, North Dakota State University Extension Service, Northern Crops Institute, and Agronomy Seed Farm. The conference committee increased the general fund appropriation by $25,000 and reduced the special funds spending authority by $25,000 to address the approximate $50,000 shortfall needed for the salary increase.

3 The Senate added funding for a study and development of plans for the Agricultural Research Center. The conference committee indicated the funding was for design and engineering costs for a beef research facility and reduced the funding to $80,000.

4 The Senate provided spending authority for a beef research facility. The conference committee agreed to this action.

The Senate added a section of intent providing that if the Main Research Center proceeds with a beef research center in Fargo, appropriate city and county officials agree to the location of the facility. The conference committee agreed to this action.

The Senate provided that the operating pool of $750,000 from the permanent oil tax trust fund be used for operating costs at the Dickinson Research Center and be limited to the amount oil revenues are less than budgeted for the biennium. The conference committee agreed to this action.

The Senate added a section of intent that the livestock facilities at Dickinson, Hettinger, Carrington, and Streeter be examined to ensure the use of the facilities are being maximized. The conference committee agreed to this action.

The Senate provided for the Agricultural Experiment Station to provide a report to the 61st Legislative Assembly regarding funding received from the National Cattlemen's Beef Association. The conference committee agreed to this action.

The conference committee added a section relating to licensure requirements to grow industrial hemp for commercial purposes.

House Bill No. 1020 - Agronomy Seed Farm - Conference Committee Action

The Senate did not change the House version.

Engrossed HB 1020 was placed on the Seventh order of business on the calendar.

2007 TESTIMONY

HB 1020

STATEMENT OF PURPOSE OF AMENDMENT:

House Bill No. 1020 - Funding Summary

	Executive Budget	House Changes	House Version
Transportation Institute			
Transportation institute	$27,479,547	($23,884)	$27,455,663
Total all funds	$27,479,547	($23,884)	$27,455,663
Less estimated income	26,255,663	0	26,255,663
General fund	$1,223,884	($23,884)	$1,200,000
FTE	43.40	0.00	43.40
Branch Research Centers			
Dickinson research center	$6,077,229		$6,077,229
Central grasslands research center	2,267,506		2,267,506
Hettinger research center	2,441,212		2,441,212
Langdon research center	1,697,293		1,697,293
North central research center	3,524,816	250,000	3,774,816
Williston research center	2,884,369	150,000	3,034,369
Carrington research center	5,482,090	96,000	5,578,090
Total all funds	$24,374,515	$496,000	$24,870,515
Less estimated income	13,716,431	0	13,716,431
General fund	$10,658,084	$496,000	$11,154,084
FTE	95.26	1.60	96.86
NDSU - Extension Service			
Extension service	$40,692,455	$1,065,000	$41,757,455
Soil conservation committee	630,000		630,000
Total all funds	$41,322,455	$1,065,000	$42,387,455
Less estimated income	23,865,624	0	23,865,624
General fund	$17,456,831	$1,065,000	$18,521,831
FTE	257.86	2.60	260.46
Northern Crops Institute			
Northern crops institute	$2,598,111	$75,000	$2,673,111
Total all funds	$2,598,111	$75,000	$2,673,111
Less estimated income	1,479,719	0	1,479,719
General fund	$1,118,392	$75,000	$1,193,392
FTE	11.20	0.00	11.20
Main Research Station			
Main research station	$86,698,779	($966,000)	$85,732,779
Total all funds	$86,698,779	($966,000)	$85,732,779
Less estimated income	41,261,157	450,000	41,711,157
General fund	$45,437,622	($1,416,000)	$44,021,622
FTE	348.08	0.80	348.88
Agronomy Seed Farm			
Agronomy seed farm	$1,230,346		$1,230,346
Total all funds	$1,230,346	$0	$1,230,346
Less estimated income	1,230,346	0	1,230,346
General fund	$0	$0	$0
FTE	3.00	0.00	3.00
Bill Total			

Total all funds	$183,703,753	$646,116	$184,349,869
Less estimated income	107,808,940	450,000	108,258,940
General fund	$75,894,813	$196,116	$76,090,929
FTE	758.80	5.00	763.80

House Bill No. 1020 - Transportation Institute - House Action

	Executive Budget	House Changes	House Version
Transportation institute	$27,479,547	($23,884)	$27,455,663
Total all funds	$27,479,547	($23,884)	$27,455,663
Less estimated income	26,255,663	0	26,255,663
General fund	$1,223,884	($23,884)	$1,200,000
FTE	43.40	0.00	43.40

Department No. 627 - Transportation Institute - Detail of House Changes

	Reduces Funding for Operations[1]	Total House Changes
Transportation institute	($23,884)	($23,884)
Total all funds	($23,884)	($23,884)
Less estimated income	0	0
General fund	($23,884)	($23,884)
FTE	0.00	0.00

[1] Reduces funding for operations of the Upper Great Plains Transportation Institute.

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

	Executive Budget	House Changes	House Version
Dickinson research center	$6,077,229		$6,077,229
Central grasslands research center	2,267,506		2,267,506
Hettinger research center	2,441,212		2,441,212
Langdon research center	1,697,293		1,697,293
North central research center	3,524,816	250,000	3,774,816
Williston research center	2,884,369	150,000	3,034,369
Carrington research center	5,482,090	96,000	5,578,090
Total all funds	$24,374,515	$496,000	$24,870,515
Less estimated income	13,716,431	0	13,716,431
General fund	$10,658,084	$496,000	$11,154,084
FTE	95.26	1.60	96.86

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

	Adds Funding for Equipment Storage Facility[1]	Adds Funding for Waste Management Systems Position[2]	Adds Funding for Irrigation Research Position[3]	Decreases Funding for Laboratory and Greenhouse[4]	Total House Changes
Dickinson research center					
Central grasslands research center					
Hettinger research center					
Langdon research center					
North central research center	300,000			(50,000)	250,000
Williston research center			150,000		150,000
Carrington research center		96,000			96,000
Total all funds	$300,000	$96,000	$150,000	($50,000)	$496,000
Less estimated income	0	0	0	0	0
General fund	$300,000	$96,000	$150,000	($50,000)	$496,000
FTE	0.00	0.60	1.00	0.00	1.60

[1] Adds $300,000 from the general fund for an equipment storage and maintenance shop facility at the North Central Research Center.

[2] Adds funding from the general fund for a .6 FTE position and related salaries and wages ($84,000) and operating costs ($12,000) for the waste management systems program at the Carrington Research Center.

[3] Adds funding for 1 FTE irrigation research position at the Williston Research Center.

[4] Decreases funding for the North Central Research Center laboratory and greenhouse project from $400,000 to $350,000.

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

	Executive Budget	House Changes	House Version
Extension service	$40,692,455	$1,065,000	$41,757,455
Soil conservation committee	630,000		630,000
Total all funds	$41,322,455	$1,065,000	$42,387,455
Less estimated income	23,865,624	0	23,865,624
General fund	$17,456,831	$1,065,000	$18,521,831
FTE	257.86	2.60	260.46

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

	Adds Funding for a 4-H Youth Development Position[1]	Adds Funding for the Rural Leadership Program[2]	Adds Funding for Parenting Resource Centers[3]	Adds Funding for Junior Master Gardener Program[4]	Adds Funding for Waste Management Systems Position[5]	Adds 1 FTE Horticulturist Position[6]
Extension service	$175,000	$200,000	$300,000	$20,000	$120,000	$250,000
Soil conservation committee						
Total all funds	$175,000	$200,000	$300,000	$20,000	$120,000	$250,000
Less estimated income	0	0	0	0	0	0
General fund	$175,000	$200,000	$300,000	$20,000	$120,000	$250,000
FTE	1.00	0.00	0.00	0.00	0.60	1.00

	Total House Changes
Extension service	$1,065,000
Soil conservation committee	
Total all funds	$1,065,000
Less estimated income	0
General fund	$1,065,000
FTE	2.60

[1] Adds funding for 1 FTE 4-H youth development position at the NDSU Extension Service.

[2] Adds funding for the rural leadership program.

[3] Adds funding for the NDSU Extension Service to provide parenting resource centers statewide. The centers provide resources for urban and rural communities relating to such topics as parents working multiple jobs, divorce, and difficulty in rearing children.

[4] Adds $20,000 from the general fund to the NDSU Extension Service for the junior master gardener program.

[5] Adds funding from the general fund for a .6 FTE position and related salaries and wages ($96,000) and operating costs ($24,000) for the waste management systems program.

[6] Adds 1 FTE horticulturist position for western North Dakota.

House Bill No. 1020 - Northern Crops Institute - House Action

	Executive Budget	House Changes	House Version
Northern crops institute	$2,598,111	$75,000	$2,673,111
Total all funds	$2,598,111	$75,000	$2,673,111
Less estimated income	1,479,719	0	1,479,719
General fund	$1,118,392	$75,000	$1,193,392
FTE	11.20	0.00	11.20

Department No. 638 - Northern Crops Institute - Detail of House Changes

	Adds Funding for One-Time Extraordinary Repairs[1]	Total House Changes
Northern crops institute	$75,000	$75,000
Total all funds	$75,000	$75,000
Less estimated income	0	0
General fund	$75,000	$75,000
FTE	0.00	0.00

[1] Adds $75,000 from the general fund for extraordinary repairs relating to a one-time renovation project at the Northern Crops Institute.

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

	Executive Budget	House Changes	House Version
Main research station	$86,698,779	($966,000)	$85,732,779
Total all funds	$86,698,779	($966,000)	$85,732,779
Less estimated income	41,261,157	450,000	41,711,157
General fund	$45,437,622	($1,416,000)	$44,021,622
FTE	348.08	0.80	348.88

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

	Adds Funding for Industrial Hemp Research[1]	Adds Funding for Waste Management Systems Position[2]	Adds Funding for Operating Pool[3]	Changes Funding Source[4]	Decreases Funding for Branch Research Center Additions[5]	Decreases Funding for the Greenhouse Project[6]
Main research station	$300,000	$184,000	$750,000		($200,000)	($2,000,000)
Total all funds	$300,000	$184,000	$750,000	$0	($200,000)	($2,000,000)
Less estimated income	0	0	750,000	(300,000)	0	0
General fund	$300,000	$184,000	$0	$300,000	($200,000)	($2,000,000)
FTE	0.00	0.80	0.00	0.00	0.00	0.00

	Total House Changes
Main research station	($966,000)
Total all funds	($966,000)
Less estimated income	450,000
General fund	($1,416,000)
FTE	0.80

[1] Adds funding from the general fund for conducting industrial hemp research at the Main Research Center.

[2] Adds funding from the general fund for a .8 FTE position and related salaries and wages ($160,000) and operating costs ($24,000) for the waste management systems program.

[3] Adds $750,000 from the permanent oil tax trust fund to the Main Research Station for an operating pool to be allocated as determined by the director of the Agricultural Experiment Station. In determining the allocation, the director of the Agricultural Experiment Station is to consider decreases in oil revenues at the Dickinson Research Center.

[4] Changes the funding source from the agricultural research fund to the general fund for research projects as determined by the research granting committees.

[5] Reduces funding for Carrington, Hettinger, and North Central Research Centers office addition projects from $1,107,750 to $907,750.

[6] Decreases funding for the research greenhouse complex project at the Main Research Center from $9 million to $7 million.

House Bill No. 1020 - Agronomy Seed Farm - House Action

The House did not change the executive budget recommendation for the Agronomy Seed Farm.

House Bill No. 1020 - Other Changes - House Action

This amendment provides for a study of industrial hemp and authorizes the Main Research Center to contract with any other university for the procurement of hemp seed necessary to conduct research.

This amendment provides carryover authority for the research greenhouse complex at the Main Research Center funded with bond proceeds ($2 million) and gifts, grants, and donations ($5 million) and for the North Central Research Center laboratory and greenhouse project funded with bond proceeds ($440,000) and gifts, grants, and donations ($1,250,000). These projects were authorized by the 2005 Legislative Assembly. In addition, references to phase 1and phase 2 of the greenhouse project at the Main Research Center are removed. The Main Research Center may use any funding available within the total appropriation authority for the Main Research Center greenhouse project to begin construction. The total appropriation includes the carryover authority of $7 million and 2007-09 biennium authority of $7 million from the general fund.

Amends North Dakota Century Code Section 24-02-03.3 to exempt certain vehicles used in farming operations at the Agronomy Seed Farm and branch research centers from state motor pool requirements.

This amendment includes a section identifying one-time projects and for a report to the Appropriations Committees of the 61st Legislative Assembly regarding the use of this one-time funding.

2007-09 Executive Recommendation

NDSU Extension Service, North Dakota Agricultural Research Stations and Agronomy Seed Farm, and Northern Crops Institute

- The executive recommendation includes an $8.6 million or 15.5 percent state general fund base increase above the 2005-07 adjusted appropriation for the NDSU Research Stations, Extension Service and Northern Crops Institute (NCI). In addition, the budget proposal includes $10.5 million in one-time state general fund appropriations for major capital projects and $100,000 for deferred maintenance. Historically, some or all of these projects would have been funded through state bond appropriations instead of direct state general fund appropriations. The total general fund increase ($19.2 million) brings the total general fund budget to $74.7 million for the NDSU Research Stations, Extension Service and NCI.

- Base funding increases ($8.6 million) were made in the following areas:
  - o Provides $777,000 for the cost to continue fiscal year salary increases and $4.3 million for 4 percent annual salary increases, with a minimum of $75 per month and full funding of health insurance increases ($1,250 per employee per year).
  - o Includes full funding of the first three (of 13) SBARE prioritized initiatives ($3.35 million) as follows:

Research stations equipment and operating	$940,000
Extension Service operating & equipment	$100,000
Branch research stations support staff	$462,800
Bioproducts/bioenergy development	$700,000
Scab research & NDAWN weather network	$675,000
Pulse improvement (develop improved varieties of peas, lentils and chickpeas)	$470,000

  - o NCI — A technical staff position to assist the two crop quality specialists ($100,000) and additional funds ($38,346) for staff development/training.

- A total of $10.5 million in one-time state general fund appropriations are provided for the following major capital project priorities, all of which were on the SBHE's major capital project priority list, with the exception of the North Central agronomy lab/greenhouse:

Research greenhouse - phase II	$9,000,000
Carrington REC office building addition	$ 465,000
Hettinger REC office building addition	$ 222,750
North Central REC office building addition	$ 420,000
North Central agronomy lab/greenhouse ***(Not included in SBHE budget request)***	$ 400,000

The requested $950,000 beef research facility was not funded.

- Includes $701,000 in nonstate appropriation authority for the following major capital projects:

Dickinson REC parking lot	$ 350,000
Dickinson REC waste management facility	$ 351,000

General Fund —

Extension Service, Main and Branch Research Centers and Northern Crops Institute

Reconciliation of 2005-07 Original Appropriation to 2007-09 Executive Recommendation (HB1020)

	(1) Extension Service	(2) Main Research Center	(3) Branch Research Centers	(4) NCI	(5) Total
2005-07 Original General Fund Appropriation	$15,358,146	$30,794,067	$8,386,309	$910,761	$55,449,283
Base Adjustments:					
2003-05 Carryover	28,459				28,459
Transfer from Main Research Center to Extension Service and Branch Research Centers"	66,000	(150,000)	84,000		-
2005-07 Adjusted General Fund Appropriation	15,452,605	30,644,067	8,470,309	910,761	55,477,742
2003-05 Carryover Adjustment	(28,459)				(28,459)
OMB Base funding correction	3,058		6		3,064
Cost to continue FY2007 salary increases	190,390	458,313	116,789	11,545	777,037
2007-09 Base General Fund Request-BARS	15,617,594	31,102,380	8,587,104	922,306	56,229,384
Executive Recommendation Increases (Decreases):					
Compensation package (4% per year) and health insurance increases	1,389,237	2,342,392	558,280	57,740	4,347,649
SBARE Initiatives[1]	450,000	1,785,100	1,112,700	138,346	3,486,146
Deferred Maintenance - One time		100,000			100,000
State-funded Capital Projects		10,107,750	400,000		10,507,750
Total Increases (Decreases)	1,839,237	14,335,242	2,070,980	196,086	18,441,545
2007-09 Executive Recommendation General Fund	**17,456,831**	**45,437,622**	**10,658,084**	**1,118,392**	**74,670,929**
Increase (Decrease) From 2005-07 Adjusted Appropriation	**$2,004,226**	**$14,793,555**	**$2,187,775**	**$207,631**	**$19,193,187**

[1]The following SBARE initiatives (ranked 1-3) and NCI increases were funded:

Extension Service - $300,000 Bioproducts; $100,000 Operating funds increase; $50,000 Scab

Main Research Center - $355,000 Revolving equipment pool for research departments at NDSU; $200,100 Increase operating funds from $6,100 per scientist year (SY) to $10,000 per SY; $400,000 Bioproducts/bioenergy development; $550,000 Scab operating & NDAWN; $280,000 Pulse improvement program

Branch Research Centers - $135,000 Revolving equipment pool increase; $249,900 Increase operating funds; $462,800 Increase 1 FTE support staff at each branch station; $75,000 Scab operating; $190,000 Pulse improvement program

NCI - Funded optional package request of $100,000 for technical processing staff position and $38,346 for staff development.

Other Funds —

Extension Service, Main and Branch Research Centers, Northern Crops Institute and Agronomy Seed Farm

Reconciliation of 2005-07 Original Appropriation to 2007-09 Executive Recommendation (HB1020)

	(1) Extension Service	(2) Main Research Center	(3) Branch Research Centers	(4) NCI	(5) Agronomy Seed Farm	(6) Total
2005-07 Original Other Fund Appropriation	$23,021,591	$44,662,646	$13,119,367	$991,922	$1,201,008	$82,996,534
Increases (decreases) included in budget request:						
2005-07 Capital projects		(7,000,000)	(2,040,000)			(9,040,000)
2007-09 Capital projects		11,057,750	701,000			11,758,750
OMB Base funding correction	4,236					4,236
Other changes in estimated income	(209,241)	2,512,294	1,736,660	442,655	1,740	4,484,108
2007-09 Budget Request	22,816,586	51,232,690	13,517,027	1,434,577	1,202,748	90,203,628
Executive Recommendation Increases (Decreases):						
Compensation package (4% per year) and health insurance increases	1,049,038	1,086,217	199,404	45,142	27,598	2,407,399
Increase (decrease) capital projects - Other Funds		(11,057,750)				(11,057,750)
Total Increases (Decreases)	1,049,038	(9,971,533)	199,404	45,142	27,598	(8,650,351)
2007-09 Executive Recommendation - Other Funds	**$23,865,624**	**$41,261,157**	**$13,716,431**	**$1,479,719**	**$1,230,346**	**$81,553,277**

Branch Research Centers

Reconciliation of 2005-07 Original Appropriation to 2007-09 Executive Recommendation (HB1020)

	(1) Dickinson	(2) Central Grasslands	(3) Hettinger	(4) Langdon	(5) North Central	(6) Williston	(7) Carrington	(8) Total
General Fund:								
2005-07 Original General Fund Appropriation	$1,799,589	$897,618	$942,453	$895,151	$853,252	$1,241,813	$1,756,433	$8,386,309
Base Adjustments:								
Reallocation of revolving equipment pool	(88,333)	88,333	88,334	88,333	-	(88,334)	(88,333)	-
Transfer from Main Research Center to Extension Service and Branch Research Centers	12,000	12,000	12,000	12,000	12,000	12,000	12,000	84,000
2005-07 Adjusted General Fund Appropriation	1,723,256	997,951	1,042,787	995,484	865,252	1,165,479	1,680,100	8,470,309
OMB Base funding correction								
Cost to continue FY2007 salary increases	26,623	13,148	12,098	13,275	13,195	14,134	24,316	116,789
2007-09 Base General Fund Request	1,749,879	1,011,099	1,054,885	1,008,759	878,447	1,179,613	1,704,422	8,587,104
Executive Recommendation Increases (Decreases):								
Compensation package (4% per year) and health insurance increases	134,335	63,020	61,091	56,822	67,794	62,675	112,543	558,280
Initiatives	101,816	113,478	113,479	138,479	416,816	101,816	126,816	1,112,700
One-time funding to finish North Central lab project					400,000			400,000
Total Increases (Decreases)	236,151	176,498	174,570	195,301	884,610	164,491	239,359	2,070,980
2007-09 Executive Recommendation - General Fund	**$1,986,030**	**$1,187,597**	**$1,229,455**	**$1,204,060**	**$1,763,057**	**$1,344,104**	**$1,943,781**	**$10,658,084**
Other Funds:								
2005-07 Original Other Fund Appropriation	$3,764,281	$1,437,679	$867,204	$440,943	$3,077,288	$1,030,065	$2,501,907	$13,119,367
Increases (decreases) included in budget request:								
2005-07 Capital projects		(350,000)			(1,690,000)			(2,040,000)
2007-09 Capital projects	701,000							701,000
Other changes in estimated income	(421,676)	(21,448)	316,961	34,608	339,882	503,364	984,969	1,736,660
2007-09 Budget Request-Other Funds	4,043,605	1,066,231	1,184,165	475,551	1,727,170	1,533,429	3,486,876	13,517,027
Executive Recommendation Increases (Decreases):								
Compensation package (4% per year) and health insurance increases	47,594	13,678	27,592	17,682	34,589	6,836	51,433	199,404
Total Increases (Decreases)	47,594	13,678	27,592	17,682	34,589	6,836	51,433	199,404
2007-09 Executive Recommendation-Other Funds	**$4,091,199**	**$1,079,909**	**$1,211,757**	**$493,233**	**$1,761,759**	**$1,540,265**	**$3,538,309**	**$13,716,431**
2007-09 Executive Recommendation-Total Funds	**$6,077,229**	**$2,267,506**	**$2,441,212**	**$1,697,293**	**$3,524,816**	**$2,884,369**	**$5,482,090**	**$24,374,515**

NDSU Ag Research and Extension
Optional Request by Agency
FUNDED

SBARE Ranking	Extension FTE	Extension Salary & FB	Extension Operating	Total Extension	Main Research Station FTE	Main Research Station Salary & FB	Main Research Station Operating	Main Research Station Equipment	Main Research Station Total	Branch Research Centers (Detail Attached) FTE	Branch Research Centers Salary & FB	Branch Research Centers Operating	Branch Research Centers Equipment	Branch Research Centers Total	Total Main & Branch RE Centers	Total Extension and Research
#1-AES Equip & Operating Pool	-	-	-	-	-	-	200,100	355,000	555,100	-	-	249,900	135,000	384,900	940,000	940,000
#2-REC Support Staff									-	7.0	462,800			462,800	462,800	462,800
#2-Bioproducts/ Bioenergy Devel	1.0	200,000	100,000	300,000	2.0	300,000	100,000		400,000	-	-	-	-	-	400,000	700,000
#2-Oper & Equip			100,000	100,000					-	-	-	-	-	-		100,000
#3-Scab/NDAWN		50,000		50,000			550,000		550,000	-	-	75,000	-	75,000	625,000	675,000
#3-Pulse Improvement					1.0	200,000	80,000		280,000	1.0	150,000	40,000	-	190,000	470,000	470,000
#4-4H Devel & Ldrshp	3.0	550,000		550,000					-	-	-	-	-	-	-	550,000
#4-Waste Mgmt	0.6	96,000	24,000	120,000	0.8	160,000	24,000		184,000	0.8	84,000	12,000	-	96,000	280,000	400,000
#5-Host resistance & pest research				-	2.0	200,000			200,000	5.0	500,000	-	-	500,000	700,000	700,000
#6-Swine	0.6	120,000	30,000	150,000	0.4	80,000	20,000		100,000	-	-	-	-	-	100,000	250,000
#6-Ag Business Dev	2.0	320,000	100,000	420,000					-	-	-	-	-	-	-	420,000
#7-Livestock Devel	0.8	160,000	32,000	192,000	0.2	40,000	18,000		58,000	-	-	-	-	-	58,000	250,000
#7-Horticulture	1.0	200,000		200,000					-	-	-	-	-	-	-	200,000
#7-Pest Mgmt	0.2	32,000		32,000					-	0.8	128,000	-	-	128,000	128,000	160,000
#8-Pest Application Research				-	1.0	90,000			90,000	-	-	-	-	-	90,000	90,000
#9-Multiple Land	2.0	400,000		400,000					-	-	-	-	-	-	-	400,000
#9-Livestock/Range	0.9	126,000	12,000	138,000	0.7	98,000	12,000		110,000	1.4	196,000	16,000	-	212,000	322,000	460,000
#9-Parenting	2.25	200,000		200,000					-	-	-	-	-	-	-	200,000
#10-Irrigation				-					-	1.0	180,000	-	-	180,000	180,000	180,000
#11-Food Industry	0.4	80,000	20,000	100,000	1.6	220,000	30,000		250,000	-	-	-	-	-	250,000	350,000
#12-Sustainable Ag	0.7	126,000		126,000					-	0.3	54,000	-	-	54,000	54,000	180,000
#13-Web Design & Info Specialists			32,800	32,800					-	-	-	-	-	-	-	32,800
Unranked-Soil Conser			125,000	125,000						-	-	-	-	-	-	125,000
	15.45	2,660,000	575,800	3,235,800	9.7	1,388,000	1,034,100	355,000	2,777,100	17.1	1,754,800	392,900	135,000	2,282,700	5,059,800	8,295,600

NDSU Branch Research Centers
Optional Request by Branch REC
FUNDED

SBARE Ranking	Dickinson REC					Central Grasslands REC					Hettinger REC					Langdon REC				
	FTE	Salary & FB	Operating	Equipment	Total	FTE	Salary & FB	Operating	Equipment	Total	FTE	Salary & FB	Operating	Equipment	Total	FTE	Salary & FB	Operating	Equipment	Total
#1-AES Equip & Operating Pool			35,700		35,700			35,700	11,666	47,366			35,700	11,667	47,367			35,700	11,667	47,367
#2-REC Support Staff	1.0	66,116			66,116	1.0	66,112			66,112	1.0	66,112			66,112	1.0	66,112			66,112
#2-Bioproducts/ Bioenergy Devel					-					-					-					-
#2-Oper & Equip					-					-					-					-
#3-Scab/NDAWN					-					-					-					-
#3-Pulse Improvement					-					-					-			25,000		25,000
#4-4H Devel & Ldrshp					-					-					-					-
#4-Waste Mgmt					-					-					-					-
#5-Host resistance & pest research					-					-					-	1.0	100,000			100,000
#6-Swine					-					-					-					-
#6-Ag Business Dev					-					-					-					-
#7-Livestock Devel					-					-					-					-
#7-Horticulture					-					-					-					-
#7-Pest Mgmt					-					-					-					-
#8-Pest Application Research					-					-					-					-
#9-Multiple Land					-					-					-					-
#9-Livestock/Range					-	0.7	98,000	8,000		106,000	0.7	98,000	8,000		106,000					-
#9-Parenting					-					-					-					-
#10-Irrigation					-					-					-					-
#11-Food Industry					-					-					-					-
#12-Sustainable Ag	0.3	54,000			54,000					-					-					-
#13-Web Design & Info Specialists					-					-					-					-
Unranked-Soil Conser					-					-					-					-
	1.3	120,116	35,700	-	155,816	1.7	164,112	43,700	11,666	219,478	1.7	164,112	43,700	11,667	219,479	2.0	166,112	60,700	11,667	238,479

SBARE Ranking	North Central REC					Williston REC					Carrington REC					Total Branch REC's					
	FTE	Salary & FB	Operating	Equipment	Total	FTE	Salary & FB	Operating	Equipment	Total	FTE	Salary & FB	Operating	Equipment	Total	FTE	Salary & FB	Operating	Equipment	Total	
#1-AES Equip & Operating Pool			35,700	100,000	135,700			35,700		35,700			35,700		35,700	-	-	249,900	135,000	384,900	
#2-REC Support Staff	1.0	66,116			66,116	1.0	66,116			66,116	1.0	66,116			66,116	7.0	462,800			462,800	
#2-Bioproducts/ Bioenergy Devel					-					-					-					-	1,112,700
#2-Oper & Equip					-					-					-					-	
#3-Scab/NDAWN			25,000		25,000					-			25,000		25,000	-	-	75,000	-	75,000	
#3-Pulse Improvement	1.0	150,000	40,000		190,000					-					-	1.0	150,000	40,000	-	190,000	
#4-4H Devel & Ldrshp					-					-					-	-	-	-	-	-	
#4-Waste Mgmt					-					-	0.6	84,000	12,000		96,000	0.6	84,000	12,000	-	96,000	
#5-Host resistance & pest research	1.0	100,000			100,000	2.0	200,000			200,000	1.0	100,000			100,000	5.0	500,000	-	-	500,000	
#6-Swine					-					-					-	-	-	-	-	-	
#6-Ag Business Dev					-					-					-	-	-	-	-	-	
#7-Livestock Devel					-					-					-	-	-	-	-	-	
#7-Horticulture					-					-					-	-	-	-	-	-	
#7-Pest Mgmt					-					-	0.8	128,000			128,000	0.8	128,000	-	-	128,000	
#8-Pest Application Research					-					-					-	-	-	-	-	-	
#9-Multiple Land					-					-					-	-	-	-	-	-	
#9-Livestock/Range					-					-					-	1.4	196,000	16,000	-	212,000	
#9-Parenting					-					-					-	-	-	-	-	-	
#10-Irrigation					-	1.0	180,000			180,000					-	1.0	180,000	-	-	180,000	
#11-Food Industry					-					-					-	-	-	-	-	-	
#12-Sustainable Ag					-					-					-	0.3	54,000	-	-	54,000	
#13-Web Design & Info Specialists					-					-					-	-	-	-	-	-	
Unranked-Soil Conser					-					-					-	-	-	-	-	-	
	3.0	316,116	100,700	100,000	516,816	4.0	446,116	35,700	-	481,816	3.4	378,116	72,700	-	450,816	17.1	1,754,800	392,900	135,000	2,282,700	

ANALYSIS OF 2007-09 EXECUTIVE RECOMMENDATION BY LINE ITEM (HB 1020)
(NORTHERN CROPS INSTITUTE, EXTENSION SERVICE, MAIN RESEARCH STATION, RESEARCH STATIONS & AGRONOMY SEED FARM)

	2007-09 Exec Recommendation	2005-07 Adj Appropriation	Incr (Decr) over 2005-07 $$ change	Incr (Decr) over 2005-07 %% change
Northern Crops Institute				
Operations	2,598,111	1,902,683	695,428	36.5%
2003-05 Carryover	0	0	0	0.0%
Total all funds	2,598,111	1,902,683	695,428	36.5%
Less estimated income	1,479,719	991,922	487,797	49.2%
Total general fund appropriation	1,118,392	910,761	207,631	22.8%
Extension Service				
Operations	40,692,455	37,636,958	3,055,497	8.1%
Soil Conservation Committee	630,000	837,238	(207,238)	-24.8%
2003-05 Carryover	0	0	0	0.0%
Total all funds	41,322,455	38,474,196	2,848,259	7.4%
Less estimated income	23,865,624	23,021,591	844,033	3.7%
Total general fund appropriation	17,456,831	15,452,605	2,004,226	13.0%
Main Research Station				
Operations	76,591,029	68,306,713	8,284,316	12.1%
2003-05 Carryover	0	0	0	0.0%
Subtotal all funds	76,591,029	68,306,713	8,284,316	12.1%
Less estimated income	41,261,157	37,662,646	3,598,511	9.6%
Subtotal general fund appropriation	35,329,872	30,644,067	4,685,805	15.3%
Major Capital Projects:	10,107,750	7,000,000	3,107,750	44.4%
Subtotal all funds	10,107,750	7,000,000	3,107,750	44.4%
Less estimated income	0	7,000,000	(7,000,000)	-100.0%
Subtotal general fund appropriation	10,107,750	0	10,107,750	100.0%
Total:				
Total all funds	86,698,779	75,306,713	11,392,066	15.1%
Less estimated income	41,261,157	44,662,646	(3,401,489)	-7.6%
Total general fund appropriation	45,437,622	30,644,067	14,793,555	48.3%

ANALYSIS OF 2007-09 EXECUTIVE RECOMMENDATION BY LINE ITEM (HB 1020) (NORTHERN CROPS INSTITUTE, EXTENSION SERVICE, MAIN RESEARCH STATION, RESEARCH STATIONS & AGRONOMY SEED FARM) — CONTINUED

	2007-09 Exec Recommendation	2005-07 Adj Appropriation	Incr (Decr) over 2005-07 $$ change	Incr (Decr) over 2005-07 %% change
Branch Research Centers				
Dickinson Research Center	5,376,229	5,575,870	(199,641)	-3.6%
Central Grasslands Research Center	2,267,506	1,997,297	270,209	13.5%
Hettinger Research Center	2,441,212	1,821,657	619,555	34.0%
Langdon Research Center	1,697,293	1,348,094	349,199	25.9%
North Central Research Center	3,124,816	2,252,540	872,276	38.7%
Williston Research Center	2,884,369	2,283,878	600,491	26.3%
Carrington Research Center	5,482,090	4,270,340	1,211,750	28.4%
2003-05 Carryover	0	0	0	0.0%
Subtotal all funds	23,273,515	19,549,676	3,723,839	19.0%
Less estimated income	13,015,431	11,079,367	1,936,064	17.5%
Subtotal general fund appropriation	10,258,084	8,470,309	1,787,775	21.1%
Major Capital Projects:	1,101,000	2,040,000	(939,000)	-46.0%
Subtotal all funds	1,101,000	2,040,000	(939,000)	-46.0%
Less estimated income	701,000	2,040,000	(1,339,000)	-65.6%
Subtotal general fund appropriation	400,000	0	400,000	100.0%
Total:				
Total all funds	24,374,515	21,589,676	2,784,839	12.9%
Less estimated income	13,716,431	13,119,367	597,064	4.6%
Total general fund appropriation	10,658,084	8,470,309	2,187,775	25.8%
Agronomy Seed Farm:				
Operations	1,230,346	1,201,008	29,338	2.4%
Total estimated income	1,230,346	1,201,008	29,338	2.4%
Major Capital Projects:	0	0	0	0.0%
Subtotal all funds	0	0	0	0.0%
Less estimated income	0	0	0	0.0%
Subtotal general fund appropriation	0	0	0	0.0%
Total:				
Total all funds	1,230,346	1,201,008	29,338	2.4%
Less estimated income	1,230,346	1,201,008	29,338	2.4%
Total general fund appropriation	0	0	0	0.0%

ANALYSIS OF 2007-09 EXECUTIVE RECOMMENDATION BY LINE ITEM (HB 1020) (NORTHERN CROPS INSTITUTE, EXTENSION SERVICE, MAIN RESEARCH STATION, RESEARCH STATIONS & AGRONOMY SEED FARM) — CONTINUED

TOTAL-ALL:	2007-09 Exec Recommendation	2005-07 Adj Appropriation	Incr (Decr) over 2005-07 $$ change	Incr (Decr) over 2005-07 %% change
Operating Budget and Capital Improvements (Including $100,000 one-time Deferred Maintenance):				
Total General Fund	$ 64,163,179	$ 55,477,742	$ 8,685,437	15.7%
Total Special Funds	80,852,277	73,956,534	6,895,743	9.3%
Total All Funds	145,015,456	129,434,276	15,581,180	12.0%
Major Capital Projects:				
Total General Fund	10,507,750	0	10,507,750	100.0%
Total Special Funds	701,000	9,040,000	(8,339,000)	-92.2%
Total All Funds	11,208,750	9,040,000	2,168,750	24.0%
TOTAL-ALL:				
Total General Fund	**74,670,929**	**55,477,742**	**19,193,187**	**34.6%**
Total Special Funds	**81,553,277**	**82,996,534**	**(1,443,257)**	**-1.7%**
Total All Funds	**$ 156,224,206**	**$ 138,474,276**	**$ 17,749,930**	**12.8%**

1/ HB 1020 includes single line-item budgets for the NDSU Main & Branch Research Stations and Agronomy Seed Farm, although major capital projects are listed separately for this analysis.

NDSU Ag Research and Extension
Optional Request by Agency

SBARE Ranking	Extension FTE	Extension Salary & FB	Extension Operating	Extension Total	Main Research Station FTE	Main Research Station Salary & FB	Main Research Station Operating	Main Research Station Equipment	Main Research Station Total	Branch Research Centers (Detail Attached) FTE	Branch Research Centers Salary & FB	Branch Research Centers Operating	Branch Research Centers Equipment	Branch Research Centers Total	Total Main & Branch RE Centers	Total Extension and Research
#1-AES Equip & Operating Pool				-			200,100	355,000	555,100	-	-	249,900	135,000	384,900	940,000	940,000
#2-REC Support Staff									-	7.0	462,800	-	-	462,800	462,800	462,800
#2-Bioproducts/ Bioenergy Devel	1.0	200,000	100,000	300,000	2.0	300,000	100,000		400,000	-	-	-	-	-	400,000	700,000
#2-Oper & Equip			100,000	100,000					-	-	-	-	-	-	-	100,000
#3-Scab/NDAWN		50,000		50,000			550,000		550,000	-	-	75,000	-	75,000	625,000	675,000
#3-Pulse Improvement					1.0	200,000	80,000		280,000	1.0	150,000	40,000	-	190,000	470,000	470,000
#4-4H Devel & Ldrshp	3.0	550,000		550,000					-	-	-	-	-	-	-	550,000
#4-Waste Mgmt	0.6	96,000	24,000	120,000	0.8	160,000	24,000		184,000	0.6	84,000	12,000	-	96,000	280,000	400,000
#5-Host resistance & pest research				-	2.0	200,000			200,000	5.0	500,000	-	-	500,000	700,000	700,000
#6-Swine	0.6	120,000	30,000	150,000	0.4	80,000	20,000		100,000	-	-	-	-	-	100,000	250,000
#8-Ag Business Dev	2.0	320,000	100,000	420,000					-	-	-	-	-	-	-	420,000
#7-Livestock Devel	0.8	160,000	32,000	192,000	0.2	40,000	18,000		58,000	-	-	-	-	-	58,000	250,000
#7-Horticulture	1.0	200,000		200,000					-	-	-	-	-	-	-	200,000
#7-Pest Mgmt	0.2	32,000		32,000					-	0.8	128,000	-	-	128,000	128,000	160,000
#8-Pest Application Research				-	1.0	90,000			90,000	-	-	-	-	-	90,000	90,000
#9-Multiple Land	2.0	400,000		400,000					-	-	-	-	-	-	-	400,000
#9-Livestock/Range	0.9	126,000	12,000	138,000	0.7	98,000	12,000		110,000	1.4	196,000	16,000	-	212,000	322,000	460,000
#9-Parenting	2.25	200,000		200,000					-	-	-	-	-	-	-	200,000
#10-Irrigation				-					-	1.0	180,000	-	-	180,000	180,000	180,000
#11-Food Industry	0.4	80,000	20,000	100,000	1.6	220,000	30,000		250,000	-	-	-	-	-	250,000	350,000
#12-Sustainable Ag	0.7	126,000		126,000					-	0.3	54,000	-	-	54,000	54,000	180,000
#13-Web Design & Info Specialists			32,800	32,800					-	-	-	-	-	-	-	32,800
Unranked-Soil Conser			125,000	125,000						-	-	-	-	-	-	125,000
	15.45	2,660,000	575,800	3,235,800	9.7	1,388,000	1,034,100	355,000	2,777,100	17.1	1,754,800	392,900	135,000	2,282,700	5,059,800	8,295,600

Included in Governor's Recommended Budget

Items supported by House of Representatives (see page 96 for budget detail on these items)

NDSU Extension Service, Main Research Station and Branch Centers, Northern Crops Institute (NCI), Agronomy Seed Farm
Summary of Final Amendments to HB1020, February 15, 2007

The full House Appropriations committee adopted amendments to HB1020, the appropriation bill for NDSU Extension Service, Main Research Station and Branch Centers, Northern Crops Institute (NCI), & Agronomy Seed Farm on February 14, 2007, and was passed on the floor of the House on February 15.

A net increase of **$220,000** in state general funds (over the executive recommendation) are included in the amendments in base and one-time funding, as follows:

- **$1,795,000** net increase in **base funding** for the following:
  - Waste management systems program (Extension Service-$120,000, Main Research Station - $184,000 & Carrington REC-$96,000) - **$400,000**
  - 4-H youth development position (Extension Service) - **$175,000**
  - Rural leadership position (Extension Service) - **$200,000**
  - Statewide parenting resource centers (Extension Service) - **$300,000**
  - Western ND horticulturist position (Extension Service) - **$250,000**
  - Irrigation research position (Williston REC) - **$150,000**
  - Junior master gardner program (Extension Service) - **$20,000**
  - Replaces special funds from ag research fund with general funds (Main Research Station) - **$300,000**
- **($1,575,000)** net decrease in **one-time funding** for the following:
  - Increase for industrial hemp research at Main Research Station (Also authorizes the Main Research Station to contract with other entities for the procurement of hemp seed and to conduct the research) - **$300,000**
  - Increase for North Central REC equipment storage facility - **$300,000**
  - Increase for renovation of NCI - **$75,000**
  - Reduces funding for North Central laboratory & greenhouse – **($50,000)**
  - Reduces funding for Carrington, Hettinger and North Central office additions from $1,107,750 to $907,750 – **($200,000)**
  - Reduces funding for the Main Research Station research greenhouse complex from $9 million to $7 million – **($2 million)**

Other amendments include:

- Adds $750,000 (special funds) to the Main Research Station from the permanent oil tax trust fund for an operating pool to be allocated as determined by the director of the agriculture experiment station. The director is to consider decreases in oil revenues at the Dickinson REC when determining the allocation.
- Provides carryover authority for the following projects authorized by the 2005 legislative assembly: Phase 1 of Research Greenhouse Complex - $7M ($2M State bonds, $5M Gifts, grants & donations); and North Central Agronomy Lab and Greenhouse - $1,690,000 ($440,000 State bonds, $1,250,000 Gifts, grants & donations). The amendment also removes all reference to "phases" for the Research Greenhouse Complex, and gives the Main Research Station total project authorization of $14 million, including $7M in new general fund authority plus 2005-07 carryover authority of $2M state bonding and $5M other funding authority.
- Amends NDCC, section 24-02-03.3 to exempt certain vehicles used in farming operations at the Branch Research Centers and Agronomy Seed Farm from state motor pool requirements.
- Includes reporting requirement to 2009 appropriation committees on use of $9,782,750 one-time funds.

Extension Service, Main & Branch Research Stations, Northern Crops Institute and Agronomy Seed Farm
Comparison of Budget Request to Executive Recommendation and Engrossed HB1020

	(1)	(2)	(3)	(4)	(6)	(7)
	General Fund					
	Extension Service	Main Research Station	Branch Centers	NCI	Agronomy Seed Farm	Total General Fund
2005-07 Adjusted General Fund Appropriation	15,452,605	30,644,067	8,470,309	910,761	-	55,477,742
2003-05 Carryover Adjustment	(28,459)					(28,459)
OMB Base funding correction	3,056		8			3,064
Cost to continue FY2007 salary increases	190,390	458,313	116,789	11,545		777,037
2007-09 Base General Fund Request	**15,617,594**	**31,102,380**	**8,587,104**	**922,306**	**-**	**56,229,384**
Executive Recommendation increases (Decreases):						
Compensation package (4% per year) and health insurance increases	1,389,237	2,342,392	558,280	57,740		4,347,649
Base funding for SBARE initiatives 1/	450,000	1,785,100	1,112,700	138,346		3,486,146
Deferred Maintenance - One time		100,000				100,000
State-funded Capital Projects - One time		10,107,750	400,000			10,507,750
Total Increases - Executive Recommendation	**1,839,237**	**14,335,242**	**2,070,980**	**196,086**	**-**	**18,441,645**
General Fund per Executive Recommendation	**17,456,831**	**45,437,622**	**10,658,084**	**1,118,392**	**-**	**74,670,929**
House Amendments:						
Adjustments to Base Funding:						
Adds funds for salaries & operating for waste management systems program (2.0 FTE - .6 Extension, .8 Main Research & .6 Carrington REC)	120,000	184,000	96,000			400,000
Adds funds for irrigation research position (1 FTE)			150,000			150,000
Adds funds for 4-H youth development position (1 FTE)	175,000					175,000
Adds funds for rural leadership program	200,000					200,000
Adds funds for parenting resource centers statewide	300,000					300,000
Adds funds for junior master gardner program	20,000					20,000
Adds funding for western ND horticulturist position (1 FTE)	250,000					250,000
Changes funding source from ag research fund to general fund for research projects as determined by the research granting committee		300,000				300,000
Subtotal Base Funding Adjustments	**1,065,000**	**484,000**	**246,000**	**-**	**-**	**1,795,000**
Adjustments to One-time Funding:						
Adds one-time funds for industrial hemp research 2/		300,000				300,000
Adds funds for equipment storage facility at North Central			300,000			300,000
Decreases funding for Carrington, Hettinger & North Central office additions from $1,107,750 to $907,750		(200,000)				(200,000)
Decreases funding for the research greenhouse complex from $9 million to $7 million		(2,000,000)				(2,000,000)
Decreases funding for laboratory & greenhouse			(50,000)			(50,000)
Adds funds for renovation at NCI.				75,000		75,000
Subtotal One-time Funding Adjustments	**-**	**(1,900,000)**	**250,000**	**75,000**	**-**	**(1,575,000)**
Total House Amendments	**1,065,000**	**(1,416,000)**	**496,000**	**75,000**	**-**	**220,000**
General Fund per Engrossed HB1020	**$ 18,521,831**	**$ 44,021,622**	**$ 11,154,084**	**$ 1,193,392**	**$ -**	**$ 74,890,929**

Footnotes regarding general fund adjustments included in the executive recommendation and House amendments:

1/ Base funding for the following SBARE initiatives (ranked 1-3) and NCI increases were funded in the **executive recommendation:**

Extension Service - $300,000 Bioproducts; $100,000 Operating funds increase; $50,000 Scab

Main Research Center - $355,000 Revolving equipment pool for research departments at NDSU; $200,100 Increase operating funds from $6,100 per scientist year (SY) to $10,000 per SY; $400,000 Bioproducts/bioenergy development; $550,000 Scab operating & NDAWN; $280,000 Pulse improvement program

Branch Research Centers - $135,000 Revolving equipment pool increase; $249,900 Increase operating funds; $462,800 Increase 1 FTE support staff at each branch station; $75,000 Scab operating; $190,000 Pulse improvement program

NCI - Funded optional package request of $100,000 for technical processing staff position and $38,346 for staff development.

2/ The amendment provides for a study of industrial hemp and authorizes the Main Research Center to contract with other entities for the procurement of hemp seed and to conduct industrial hemp research.

Extension Service, Main & Branch Research Stations, Northern Crops Institute and Agronomy Seed Farm
Comparison of Budget Request to Executive Recommendation and Engrossed HB1020

	Other Funds					
	Extension Service	Main Research Station	Branch Centers	NCI	Agronomy Seed Farm	Total Other Funds
2007-09 Budget Request - Other Funds	**22,818,586**	**51,232,690**	**13,517,027**	**1,434,577**	**1,202,748**	**90,203,628**
Executive Recommendation Increases (Decreases):						
Compensation package (4% per year) and health insurance increases	1,049,038	1,088,217	199,404	45,142	27,598	2,407,399
Increase (decrease) capital projects-Other Funds		(11,057,750)				(11,057,750)
Total Increases (Decreases) - Exec Recommend	**1,049,038**	**(9,971,533)**	**199,404**	**45,142**	**27,598**	**(8,650,351)**
Other Funds per Executive Recommendation	**23,865,624**	**41,261,157**	**13,716,431**	**1,479,719**	**1,230,346**	**81,553,277**
House Amendments:						
Adds one-time funding for operating pool 3/		750,000				750,000
Changes funding source from ag research fund to general fund for research projects as determined by the research granting committee		(300,000)				(300,000)
Subtotal House Amendments	**-**	**450,000**	**-**	**-**	**-**	**450,000**
Other Funds per Engrossed HB1020	**$ 23,865,624**	**$ 41,711,157**	**$ 13,716,431**	**$ 1,479,719**	**$ 1,230,346**	**$ 82,003,277**

3/ Adds $750,000 from the permanent oil tax trust fund for an operating pool to be allocated as determined by the director of the agriculture experiment station. The director is to consider decreases in oil revenues at the Dickinson REC when determining the allocation.

OTHER HOUSE AMENDMENTS:

* Provides carryover authority for the following projects authorized by the 2005 legislative assembly: Phase 1 of Research Greenhouse Complex - $7M ($2M State bonds, $5M Gifts, grants & donations); and North Central Agronomy Lab and Greenhouse - $1,690,000 ($440,000 State bonds, $1,250,000 Gifts, grants & donations) general fund authority plus 2005-07 carryover authority of $2M state bonding and $5M other funding authority.
* Amends NDCC, section 24-02-03.3 to exempt certain vehicles used in farming operations at the Branch Research Centers and Agronomy Seed Farm from state motor pool requirements.
* Identifies the following as "one-time" funding and requires a report to the appropriations committees of the 2009 legislative assembly on the use of the funds:

Phase II of research greenhouse project	$ 7,000,000
Carrington, Hettinger & North Central REC's office addition projects	907,750
North Central REC laboratory & greenhouse project	350,000
North Central REC equipment storage facility	300,000
Operating pool from permanent oil trust fund	750,000
Hemp research	300,000
Deferred maintenance pool - Main research center	100,000
Extraordinary repairs - NCI	75,000
	$ 9,782,750

North Dakota University System
Detail for Branch Research Centers
Comparison of Budget Request to Executive Recommendation and Engrossed HB1020

General Fund

	Dickinson	Central Grasslands	Hettinger	Langdon	North Central	Williston	Carrington	Total
2005-07 Adjusted General Fund Appropriation	1,723,256	997,951	1,042,787	995,484	865,252	1,165,479	1,680,100	8,470,309
OMB Base funding correction							6	6
Cost to continue FY2007 salary increases	26,623	13,148	12,098	13,275	13,195	14,134	24,316	116,789
2007-09 Base General Fund Request	1,749,879	1,011,099	1,054,885	1,008,759	878,447	1,179,613	1,704,422	8,587,104
Executive Recommendation Increases (Decreases):								
Compensation package (4% per year) and health insurance increases	134,335	63,020	61,091	56,822	67,794	62,675	112,543	558,280
Initiatives	101,816	113,478	113,479	138,479	416,816	101,816	126,816	1,112,700
One-time funding to finish North Central lab project					400,000			400,000
Total Increases - Executive Recommendation	236,151	176,498	174,570	195,301	884,610	164,491	239,359	2,070,980
General Fund per Executive Recommendation	1,986,030	1,187,597	1,229,455	1,204,060	1,763,057	1,344,104	1,943,781	10,658,084
House Amendments								
Adjustments to Base Funding:								
Adds funds for irrigation research position (1 FTE)						150,000		150,000
Adds funds for salaries & operating for waste management systems program (.6 FTE)							96,000	96,000
Subtotal Base Funding Adjustments						150,000	96,000	246,000
Adjustments to One-time Funding:								
Adds funds for equipment storage facility at North Central					300,000			300,000
Decreases funding for laboratory & greenhouse					(50,000)			(50,000)
Subtotal One-time Funding Adjustments					250,000			250,000
Total House Amendments					250,000	150,000	96,000	496,000
General Fund per Engrossed HB1020	$ 1,986,030	$ 1,187,597	$ 1,229,455	$ 1,204,060	$ 2,013,057	$ 1,494,104	$ 2,039,781	$ 11,154,084

Other Funds

	Dickinson	Central Grasslands	Hettinger	Langdon	North Central	Williston	Carrington	Total
2007-09 Budget Request-Other Funds	4,043,605	1,066,231	1,184,165	475,551	1,727,170	1,533,429	3,486,876	13,517,027
Executive Recommendation Increases (Decreases):								
Compensation package (4% per year) and health insurance increases	47,594	13,678	27,592	17,682	34,589	6,836	51,433	199,404
Total Increases - Executive Recommendation	47,594	13,678	27,592	17,682	34,589	6,836	51,433	199,404
Other Funds per Executive Recommendation	4,091,199	1,079,909	1,211,757	493,233	1,761,759	1,540,265	3,538,309	13,716,431
House Amendments - None								
Other Funds per Engrossed HB1020	$ 4,091,199	$ 1,079,909	$ 1,211,757	$ 493,233	$ 1,761,759	$ 1,540,265	$ 3,538,309	$ 13,716,431

79706

Attachment A

Prepared by the North Dakota Legislative Council
staff for Representative Klein
April 2007

AGRICULTURAL RESEARCH AND EXTENSION - HOUSE BILL NO. 1020
SUMMARY OF HOUSE AND SENATE CHANGES

	FTE	General Fund	Estimated Income	Total	Line Item Total	Upper Great Plains Transportation Institute	Dickinson	Central Grasslands	Hettinger	Langdon	North Central	Williston	Carrington	NDSU Extension	Northern Crops Institute	Main Research Center	Agronomy Seed
Executive budget recommendation	758.80	$75,894,813	$107,808,940	$183,703,753	$183,703,753	$27,479,547	$6,077,229	$2,267,506	$2,441,212	$1,697,293	$3,524,816	$2,884,369	$5,482,090	$41,322,455	$2,598,111	$86,898,779	$1,230,346
House Changes:																	
Branch Research Centers																	
Adds funding for maintenance shop and equipment storage facility at North Central		$300,000	$0	$300,000	$300,000						$300,000						
Adds funding for waste management systems position at Carrington	0.60	96,000	0	96,000	96,000								$96,000				
Adds 1 FTE irrigation research position at Williston	1.00	150,000	0	150,000	150,000							$150,000					
Decreases funding to complete the North Central Research Center laboratory and greenhouse		(50,000)	0	(50,000)	(50,000)						(50,000)						
NDSU Extension																	
Adds 4-H youth position	1.00	175,000	0	175,000	175,000									$175,000			
Adds funding for rural leadership program		200,000	0	200,000	200,000									200,000			
Parenting resource centers		300,000	0	300,000	300,000									300,000			
Junior master gardener program		20,000	0	20,000	20,000									20,000			
Waste management systems position	0.60	120,000	0	120,000	120,000									120,000			
Adds 1 FTE horticulturist position for western North Dakota	1.00	250,000	0	250,000	250,000									250,000			
Northern Crops Institute																	
Extraordinary repairs (one time)		75,000	0	75,000	75,000										$75,000		
Main Research Center																	
Industrial hemp research		300,000	0	300,000	300,000											$300,000	
Waste management position	0.60	184,000	0	184,000	184,000											184,000	
Operating pool - Funding from the permanent oil tax trust fund		0	750,000	750,000	750,000											760,000	
Changes funding for agricultural research grants		300,000	(300,000)	0	0												
Reduces funding for branch research center office addition projects		(200,000)	0	(200,000)	(200,000)											(200,000)	
Reduces funding for Phase 2 of research greenhouse complex		(2,000,000)		(2,000,000)	(2,000,000)											(2,000,000)	
Upper Great Plains Transportation Institute (UGPTI)																	
Reduces funding for UGPTI		(23,884)		(23,884)	(23,884)	($23,884)											
Total House Changes	5.00	$196,116	$450,000	$646,116	$646,116	($23,884)	$0	$0	$0	$0	$250,000	$150,000	$96,000	$1,065,000	$75,000	($966,000)	$0
House Version	763.80	$76,090,929	$108,258,940	$184,349,869	$184,349,869	$27,455,663	$6,077,229	$2,267,506	$2,441,212	$1,697,293	$3,774,816	$3,034,369	$5,578,090	$42,387,455	$2,673,111	$85,732,779	$1,230,346
Section 1 amounts		$56,612,187	$98,286,567	$154,898,754	$154,898,754	$16,452,937	$5,563,870	$2,335,297	$1,809,657	$1,336,094	$3,930,540	$2,271,878	$4,258,340	$38,379,737	$1,902,683	$75,456,713	$1,201,008
Section 2 amounts		$19,478,742	$9,972,373	$29,451,115	$29,451,115	$11,002,726	$513,359	($67,791)	$631,555	$361,199	($155,724)	$762,491	$1,319,750	$4,007,718	$770,428	$10,276,066	$29,338

Other House Changes:

- Exempts certain vehicles used in farming operations at the Agronomy Seed Farm and branch research centers from state motor pool requirements.
- Provides for a study of industrial hemp and authorizes the Main Research Center to contract with any other university for the procurement of hemp seed necessary to conduct research.
- Provides carryover authority for the research greenhouse complex at the Main Research Center funded with bond proceeds ($2 million) and gifts, grants, and donations ($5 million) and for the North Central Research Center laboratory and greenhouse project funded with bond proceeds ($440,000) and gifts, grants, and donations ($1,250,000). These projects were authorized by the 2005 Legislative Assembly. In addition, references to Phase 1 and Phase 2 of the greenhouse project at the Main Research Center are removed. The Main Research Center may use any funding available within the total appropriation authority for the Main Research Center greenhouse project to begin construction. The total appropriation includes the carryover authority of $7 million and the 2007-09 biennium authority of $7 million from the general fund.
- Includes a section identifying one-time projects.

	FTE	General Fund	Estimated Income	Total	Line Item Total	Upper Great Plains Transportation Institute	Dickinson	Central Grasslands	Hettinger	Langdon	North Central	Williston	Carrington	NDSU Extension	Northern Crops Institute	Main Research Center	Agronomy Seed
House Version	783.60	$76,090,929	$108,258,940	$184,349,869	$184,349,869	$27,456,663	$6,077,229	$2,267,506	$2,441,212	$1,897,293	$3,774,816	$3,034,369	$5,578,090	$42,387,455	$2,673,111	$85,732,779	$1,230,346
Senate Changes:																	
Branch Research Centers																	
Adds funding for irrigation research position at Williston		$50,000		$50,000	$50,000												
Removes funding for equipment storage facility at North		(300,000)		(300,000)	(300,000)							$50,000					
NDSU Extension											($300,000)						
Adds funding for Soil Conservation Committee grants		100,000		100,000	100,000												
Adds funding for Smithsonian project		7,800		7,800	7,800									$100,000			
Removes funding for parenting resource centers		(300,000)		(300,000)	(300,000)									7,800			
Northern Crops Institute														(300,000)			
No change				0	0												
Main Research Center																	
Removes funding for hemp research		(300,000)		(300,000)	(300,000)											($300,000)	
Adds funding for 1 percent salary increase		413,129	$416,540	829,669	829,669											829,669	
Add funding for study and development of plans		100,000		100,000	100,000											100,000	
Adds authority for beef research facility			1,000,000	1,000,000	1,000,000											1,000,000	
Upper Great Plains Transportation Institute																	
Restores funding for operations		23,000		23,000	23,000	$23,000											
Adds funding for 1 percent salary increase		9,955	106,973	116,928		116,928											
Total Senate Changes	0.00	($196,116)	$1,523,513	$1,327,397	$1,327,397	$139,928	$0	$0	$0	$0	($300,000)	$50,000	$0	($192,200)	$0	$1,829,669	$0
Senate Version	783.60	$75,894,813	$109,782,453	$185,677,266	$185,677,266	$27,596,591	$6,077,229	$2,267,506	$2,441,212	$1,897,293	$3,474,816	$3,084,369	$5,578,090	$42,195,255	$2,673,111	$87,362,448	$1,230,346
Section 1 amounts		$56,612,187	$98,286,567	$154,898,754	$154,898,754	$16,452,937	$5,563,870	$2,335,297	$1,809,657	$1,336,094	$3,930,540	$2,271,878	$4,258,340	$38,379,737	$1,902,683	$75,456,713	$1,201,008
Section 2 amounts		$19,282,626	$11,495,886	$30,778,512	$30,778,512	$11,142,654	$513,359	($67,791)	$631,555	$361,199	($455,724)	$812,491	$1,319,750	$3,815,518	$770,428	$11,905,735	$29,338

Other Senate Changes:

- Adds a section of intent providing that if the Main Research Center proceeds with a beef research facility center in Fargo, appropriate city and county officials agree to the location of the facility.
- Provides that the operating pool of $750,000 from the permanent oil tax trust fund be used for the operating costs at the Dickinson Research Center and be limited to the amount oil revenues are less than budgeted for the biennium.
- Adds intent that the livestock facilities at Dickinson, Hettinger, Carrington, and Streeter be examined to ensure the use of the facilities are being maximized.
- Provides for the Agricultural Experiment Station to provide a report to the 61st Legislative Assembly regarding funding received from the National Cattlemen's Beef Association.

NDLA, H APP

From: Cathy McDonald [cathy.mcdonald@ndus.nodak.edu]

Sent: Wednesday, April 18, 2007 3:09 PM

To: Klein, Matthew M.; Hawken, Kathy K.; Gulleson, Pam M.; Holmberg, Ray E.; Bowman, Bill L.; Lindaas, Elroy N.

Cc: Dunn, Eddie; Glatt, Laura J.; NDLA, H APP; Wolf, Donald J.; Dolan, Tammy R.

Subject: Fwd: Salary increase issue

Subcommittee Members (HB1020):

Following are the emails that Senator Holmberg requested that I forward to you regarding the salary increase issue. The mechanics of the actual future budget requests will have to be worked out with OMB, but consistent salary/benefit increases for all NDUS employees can be ensured in the future if OMB funds equivalent salary and benefit increases in both bills. Please let us know if we can be of additional assistance.

Cathy

> Date: Wed, 18 Apr 2007 10:57:21
> To: "Dolan, Tammy R." <tadolan@nd.gov>, "Holmberg, Ray E." <rholmberg@nd.gov>
> From: Cathy McDonald <cathy.mcdonald@ndus.nodak.edu>
> Subject: Re: HB1020 Research & Extension Appropriation
> Cc: "Sharp, Pamela K." <psharp@nd.gov>, "Peterson, Sheila C." <speterson@nd.gov>, "Paulson, Sandy K." <spaulson@nd.gov>,Laura,Bruce Bollinger
>
> Senator Holmberg,
>
> I think it's important to address a couple of items from the previous email. The statement that "campuses can be directed to give any salary increase the board wants them to give – and take it out of their off budget money" could imply that the Board picks any % out of the air, when in fact they have historically directed the campuses to provide minimum average salary increases of the % provided by the legislature. Additionally this implies that the campuses have an endless pot of other dollars for pay increases, when in fact, most of those dollars are allocated to auxiliary operations, research, etc.
>
> Beyond the "minimum average salary increase" set by the Board, the Presidents of the campuses have the flexibility to set that minimum to something higher if they chose. For example, if the Board sets the guidelines at a minimum average of 3%, President Chapman can set their campus (and extension/research) at something higher than that. Additionally, the campuses and extension/research have the flexibility to determine where the additional increases (over what is provided by the legislature through parity or the pay plan) come from....including tuition revenue, vacant positions, reductions in other areas of the budget, etc.
>
> The suggestion that consideration be given to include the same salary increase in the budget request that is submitted to OMB for Research/Extension (as is included in the parity request for the campuses) merits further discussion, regarding the effect on the pay plan,

etc. Thank you.

Cathy

At 08:39 AM 4/18/2007, Dolan, Tammy R. wrote:

> Senator Holmberg,
>
> After reading Cathy McDonald's email yesterday, I wanted to provide you with some additional information.
>
> One of the main budgetary differences between Research / Extension and the University system is that all of research/extension's money is "on budget", which is not the case with the campuses. The campuses can be directed to give any salary increase the board wants them to give – and take it out of their off budget money. SHBE can direct Research / Extension to do the same, which has been done in previous biennia. However, the additional costs must come from within the "on-budget" programs– thereby decreasing dollars spent on research – because an "off-budget" resource does not exist.
>
> Currently, the SBHE controls the funding levels Research / Extension may include in their budget submission. SBARE then determines the types of research and other projects for which funding is requested. If the Legislature wishes to ensure that the University System and Research / Extension budgets include equivalent funding for salary increases, SBHE could be directed to include this within the budget request submitted to OMB as either a base or optional adjustment. This solution would retain the present level of authority and responsibility for SBHE, SBARE and OMB. Additionally, Research / Extension could continue submitting a payplan so that their budget is adjusted to reflect the cost of standard increases in employee benefits.
>
> Please let me know if you need additional information on this topic.
>
> **Tammy Dolan**
> Budget Analyst
> Office of Management and Budget
> 701-328-4947
> tadolan@nd.gov

Date: Tue, 17 Apr 2007 15:02:40 -0500
To: rholmberg@nd.gov
From: Cathy McDonald <cathy.mcdonald@ndus.nodak.edu>
Subject: Salary increase issue
Cc: Laura,Eddie Dunn,Tammy Dolan

Senator Holmberg,

I would like to provide you with additional information to address the differences in the

way in which salary increases are handled for employees funded in HB1020 (NDSU Research/Extension, Northern Crops Institute and Upper Great Plains Transportation Institute) as compared to employees funded in HB1003 (NDUS).

For years now, one of the SBHE's highest budget request priorities has been adequate funding for salary and benefit cost increases. Following presentation of comparative salary data at both a regional and national level, the SBHE recommends, as part of its budget request, a compensation package for higher education employees. For 2007-09, this was a 5% salary increase per year for all employees, including Extension and Research employees. The SBHE has not recommended varying or different levels of salary or benefits increases for Extension and Research employees.

However, as you know, in the OMB budgeting process, OMB treats the Extension and Research budget like all other state agencies, subject to the preparation of a pay plan. OMB uses these pay plans in determining the cost of salary and benefits increases. Thus, if the Governor is going to recommend a four percent raise per year for state agencies, that same formula is applied to Extension and Research as part of the pay plan calculation. The rest of higher education (i.e. eleven campuses, Forest Service, NDUS Office, and the Medical School) are not subject to preparation of a pay plan, and instead include salary and benefits increases in the "parity" calculation, as part of the long-term finance plan. This difference in the OMB process causes the different salary practices in the Governor's budget recommendation between the entities in HB1020 and those in HB1003. It is not because the SBHE makes a different recommendation for Extension and Research and a different recommendation for the eleven campuses (and others), in fact the opposite is true. The SBHE recommends the same level of salary increases for both.

This creates challenges on occasion in the reverse order as well. For example, if PERS is adding a new benefit to the health insurance plan which increases the health insurance rate, OMB will adjust the health insurance rate in the "pay plans" for state agencies and Extension and Research and this funding will be added to those budgets. However, since the eleven campuses (and others) do not prepare pay plans, the additional funding is not added to those budgets and instead the cost has to be absorbed within existing or other resources. In the current environment, any benefits cost increase would be funded in Extension and Research, but would not be in the NDSU budget.

Both of these issues need to be addressed to ensure consistency between NDUS entities, included in HB1003 and HB1020. It will be important for OMB to understand the wishes of the legislature in treating these entities consistently. One option would be for the legislature to direct OMB to provide the same level of salary increase for both HB1003 and HB1020, whether it is the same or different from that recommended for other state agencies. At least those two bills would be treated consistently. In addition, OMB could be directed to ensure that all budgets are adjusted to reflect the cost of standard increases in employee benefits, again regardless of the mechanics used in preparing the budget.

Please let me know if we can be of any help in resolving this confusing issue. Cathy

Cathy McDonald
Director of Finance
North Dakota University System
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Bismarck ND 58505-0230
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The North Dakota University System
is the Vital Link to a Brighter Future

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History

The State Board of Agricultural Research and Education (SBARE) was established by legislative decree in 1997 as the State Board of Agricultural Research (SBAR). It was responsible for budgeting and policy-making associated with the supervision of the North Dakota Agricultural Experiment Station.

The law was changed during the 1999 legislative session to include responsibility for the North Dakota State University Extension Service. The State Board of Agricultural Research (SBAR) became the State Board of Agricultural Research and Education (SBARE).

For more information, contact

Jerry Effertz, chair
1975 48th St. N.
Velva, ND 58790
(701) 624-5136
ebba@srt.com

Information

NDSU is an equal opportunity institution.

Feb. 2007

State Board of Agricultural Research and Education

Who We Are and What We Do

SBARE

Duties

The State Board of Agricultural Research and Education (SBARE), within the policies of the State Board of Higher Education, is responsible for budgeting and policymaking associated with the North Dakota Agricultural Experiment Station and the North Dakota State University Extension Service.

SBARE responsibilities include:

1. Determine the causes of any adverse economic impacts on crops and livestock produced in this state;
2. Develop ongoing strategies for the provision of research solutions and resources to negate adverse economic impacts on crops and livestock produced in this state;
3. Develop ongoing strategies for the dissemination of research information through the Extension Service;
4. Implement the strategies developed under subsections 2 and 3, subject to approval by the State Board of Higher Education;
5. Develop with the Agricultural Experiment Station and the North Dakota State University Extension Service, an annual budget for the operations of these entities;
6. Develop a biennial budget request and submit that request to the President of North Dakota State University and the State Board of Higher Education;
7. Maximize the use of existing financial resources, equipment, and facilities to generate the greatest economic benefit from research and extension efforts and to promote efficiency;
8. Annually evaluate the results of research and extension activities and expenditures and report the findings to the Legislative Council and the State Board of Higher Education;
9. Advise the President of North Dakota State University regarding the recruitment, selection and performance of the Vice President for Agricultural Affairs, the Extension Service Director and the Station Director; and
10. Present a status report to the budget section of the Legislative Council.

Membership

The State Board of Agricultural Research and Education consists of:

- The President of North Dakota State University or the President's designee
- The Vice President for Agriculture and University Extension at North Dakota State University*
- The Director of the Agricultural Experiment Station*
- The Director of the Extension Service*
- Five people appointed by the Ag Coalition
- Five people appointed in the geographic areas represented by the Extension Service's multi-county program units
- The Commissioner of Agriculture*
- Two members of the legislative assembly appointed by the chair of the Legislative Council

*serve in an ex-officio, nonvoting capacity

Compensation and Expense Reimbursement

Each appointed member of the State Board of Agricultural Research and Education is entitled to receive $75.00 per day as compensation for the time actually spent devoted to the duties of office and is entitled to receive necessary expenses in the same manner and amounts as state officials for attending meetings and performing other functions of office. Legislative assembly members receive compensation from Legislative Council.

Current members include:

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January 15, 2007
HB 1020
Handout # 1b

TESTIMONY OF JERRY S. EFFERTZ
STATE BOARD OF AGRICULTURE RESEARCH AND EDUCATION

HOUSE APPROPRIATIONS COMMITTEE
January 15, 2007

CHAIRMAN WALD, MEMBERS OF THE COMMITTEE, MY NAME IS JERRY EFFERTZ, I FARM AND RANCH IN MCHENRY COUNTY NORTHWEST OF VELVA. IT IS MY PRIVILEGE TO SERVE AS CHAIRMAN OF THE STATE BOARD OF AGRICULTURE RESEARCH AND EDUCATION.

THE RESPONSIBILITIES OF SBARE TO THE LEGISLATURE ARE VERY EXPLICIT IN THE CENTURY CODE

"The state board of agricultural research and education is responsible for the budgeting, supervision, and policymaking responsibilities associated with the supervision of the agricultural experiment station and the North Dakota state university extension service..."

WE ARE TO:

"Determine the causes of any adverse economic impacts on crops and livestock produced in the state;

"Develop ongoing strategies for the provision of research solutions to negate adverse economic impacts on crops and livestock produced in this state;

"Develop on going strategies for the dissemination of research information and the best practices for management of the extension service"

SBARE WITH ITS SPECIFIC DUTIES TO THE LEGISLATURE, IS UNLIKE ANY OTHER BOARD IN THE NATION THAT WORKS WITH AGRICULTURE RESEARCH AND EXTENSION. THAT IN ITSELF IS AN AWESOME RESPONSIBILTIY. BUT OUR ABILITY TO WORK DIRECTLY WITH AGRICULTURE PRODUCERS AND COMMODITY ORGANIZATIONS IN PRIORITIZING THEIR NEEDS TO THE LEGISLTAURE, HAS PROVIDED A GREAT DEAL OF CONFIDENCE AND CREDIBILTY IN THE SERVICE THAT THE NDSU AGRUCULTURE EXPERIMENT STATION AND NDSU EXTENSION PROVIDES.

TWELVE OF THE THIRTEEN VOTING MEMBERS OF THE STATE BOARD OF AGRICULTURE RESEARCH AND EDUCATION ARE DIRECTLY INVOLVED IN PRODUCTION AGRICULTURE, INCLUDING THE TWO LEGISLATURE MEMBERS. WE ARE PLEASED TO HAVE REPRESENTATIVE AARSVOLD FROM TRAIL COUNTY AS A MEMBER OF OUR BOARD AND I WOULD LIKE TO AKNOWLEDGE OUR BOARD MEMBERS WHO ARE ABLE TO BE WITH US TODAY. ~~RODNEY HOWE VICE CHARMAN AND LIVESTOCK COMMITTEE~~ Past Chair, Jerry Doan

CHAIR FROM HETTINGER, LARRY LEE, CROPS COMMITTEE CHAIR FROM VELVA, CAROL GOODMAN, OUR OTHER COMMITTEE CHAIR FROM LANGDON, TOM BORGEN FROM LANGDON, JOHN BOLLINGBERG FROM BREMEN, PAUL LANGSETH FROM BARNEY, DOYLE JOHANNES FROM COLEHARBOR, DOYLE LENTZ FROM ROLLA AND ROBERT BAHM FROM MINOT.
I ASSURE YOU WE TAKE OUR RESPONSIBILTY WITH GREAT SINCERITY AND IT IS A BOARD WHICH IS DEEPLY COMMITTED TO PROCESS WHICH WE ARE INVOLVED.

I TAKE THIS OPPORTUNITY TO THANK THE LEGISLATURE FOR YOUR SUPPORT DURING THE LAST LEGISLATIVE SESSION. OUR PRIMARY FOCUS WAS THE BEEF SYSTEM CENTER OF EXCELLENCE AND THE ANIMAL SCIENCE POSITIONS IN MEATS WHICH PLAY AN IMPORTANT ROLE IN OUR BEEF CATTLE RESEARCH PROGRAMS. SBARE HAS COMPLETED ITS ROLE BY APPROVING A CONTRACT WITH A PRIVATE PARTER AS SPECIFIED BY THE LEGISLATURE, AND THOSE POSTIONS HAVE BEEN FILLED. IN ADDITION AN FTE FOR A POSISTION IN DRY BEAN BREEDING WAS AUTORIZED AND THAT POSITION HAS ALSO BEEN FILLED. I'M CONFIDENT VICE PRESIDENT COSTON AND DR. GRAFTON WILL HAVE FUTHER COMMENTS REGARDING THOSE PRIORITIES.

AGRICULTURE ANNUAL CONTRIBUTES OVER 40% OF THIS STATE REVENUE. BUT MORE IMPORTANTLY IT IS A NEW WEALTH GENERATING INDUSTRY. THE OUTFLOW OF OUR ESTABLISHED WEALTH IN THIS STATE IS ENORMOUS. personal comments
I HAVE NO SOLUTION ON HOW TO RETAIN THIS ESTABLISHED WEALTH, WE CAN HELP CONTINUE TO PROSPER NEW WEALTH THROUGH AGRICULTURE. IN FULFILLING THE MANDATE ESTABLISHED BY THE LEGISLATURE, SBARE HAS DILLEGENTLY RECEIVED INFORMATION FROM ALL ACROSS THIS STATE AND FROM EVERY SECTOR OF THE AGRICULTURE COMMUNITY.

WE HELD NUMEROUS HEARINGS RECEIVING PUBLIC INPUT TO DETERMINE THOSE AREAS AND CONDITIONS WHICH ARE HAVING ADVERSE FACTORS ON THE AGRICULTURE INDUSTRY. THE SBARE BOARD ON TWO SEPARATE OCCASIONS INDPENDENT OF EACH OTHER, DELT WITH PRIORITIES TO PRESENT TO YOU. THESE RANKINGS ARE PROGRAMS WHICH IN OUR BEST JUDGEMENT WILL ADDRESS THE HIGHEST NEEDS OF NORTH DAKOTA AGRICULTURE PRODUCERS AND EXTENSION, FOR THE BENEFIT OF THE AGRICULTURE INDUSTRY AND RURAL COMMUNITIES IN THIS STATE. I AM EXTREMELY HUMBLED AND VERY PLEASED IN THE SUPPORT OF

OUR PRIORITIES FROM FOLKS IN THE AGRICULTURE INDUSTRY, WHICH I'M CONFIDENT YOU WILL HEAR TODAY.

WHILE I AM DEEPLY APPRECIATIVE OF THE EXTENT OF SUPPORT IN THE EXECUTIVE BUDGET IN RECOMMENDATIONS FOR A NUMBER OF PROGRAMS ON THE SBARE PRIORITY LIST, I HOPE YOU WILL GIVE SERIOUS EVALUATION TO THE IMPORTANCE OF ALL OF THE PROGRAMS WHICH WE PROVIDE FOR YOUR CONSIDERATION.

IF YOU ACCEPTED THE ENTIRE LIST OF SBARE PRIORITY ITEMS, INCLUDING OUR CAPITOL IMPROVEMENT PROJECTS, IT WOULD CONSTITUE LESS THAN 5% OF THE 500 MILLION DOLLARS BEING DISCUSSED IN THIS BIENNIUM – AND NEARLY HALF OF THAT IS ONE TIME EXPENDITURES.

FINALLY I WOULD LIKE TO COMMENT ABOUT PERSONNEL. MUCH HAS BEEN SAID OVER THE PAST TWO AND HALF DECADES ABOUT THE OUT MIGRATION OF PEOPLE AND CHALLENGE OF ATTRACTING TALENT TO NORTH DAKOTA. I WANT TO REAFFIRM THE OUTSTANDING TALENT IN THE FOLKS YOU WILL HEAR FROM THIS MORNING. SOME WHOM HAVE BEEN INTISED TO COME FROM OTHER STATES AND A RATHER LARGE GROUP OF NORTH DAKOTANS WHO HAVE CHOSEN TO CONTINUE TO WORK IN THIS STATE. I SAY WITH DEEP SINCERETY THEY ARE AMONG THE MOST RESPECTED, CAPABLE AND CREDIBLE FOLKS IN AGRICULTURE RESEARCH AND EXTENSION YOU WILL FIND ANYWHERE.

THROUGH YOUR CREATION OF THE STATE BOARD OF AGRICULTURE RESEARCH AND EDUCATION, YOU HAVE GIVEN ME THE OPPORTUNITY TO WORK WITH THEM. I CONSIDER IT A REMARKABLE EXPERIENCE. I THANK YOU FOR THAT OPPORTUNITY, I THANK YOU FOR GIVING THEM THE OPPORTUNITY TO SHARE WITH YOU THEIR VISION, AND I REMAIN COMMITTED TO CONTINUE TO WORK WITH YOU AND THEM IN MAKING AGRICULTURE AND OUR RURAL COMMUNITIES A THRIVING COMPONENT OF NORTH DAKOTA.

THANK YOU VERY MUCH

1/15/07
HB 1020 Extension Service
Handout #20

North Dakota AG COALITION

P.O. Box 2599
Bismarck, ND 58502
(701) 355-4458
FAX (701) 223-4645

MEMBERS

AmeriFlax

Milk Producers Association of North Dakota, Inc.

Minn-Dak Farmers Coop

North Dakota Ag Aviation Association

North Dakota Ag Consultants

North Dakota Agricultural Association

North Dakota Agri-Women

North Dakota Association of Soil Conservation Districts

North Dakota Association of Agricultural Educators

North Dakota Barley Council

North Dakota Beef Commission

[redacted]kota Corn Growers [redacted]on

North Dakota Corn Utilization Council

North Dakota Crop Improvement and Seed Association

North Dakota Department of Agriculture

North Dakota Dry Bean Council

North Dakota Elk Growers

North Dakota Farm Bureau

North Dakota Farm Credit Council

North Dakota Grain Dealers Association

North Dakota Grain Growers Association

North Dakota Lamb and Wool Producers

North Dakota Oilseed Council

North Dakota Pork Producers

North Dakota Soybean Growers Association

North Dakota State Seed Commission

North Dakota Wheat Commission

Northern Canola Growers Association

[redacted] Plains Potato Growers [redacted]on

[redacted] Pulse Growers Association

Red River Valley Sugarbeet Growers

Testimony of Mike Beltz

North Dakota Ag Coalition

HB 1020

January 15, 2007

Chairman Wald, members of the Education and Environment Division of the House Appropriations Committee:

I am Mike Beltz. I farm near Hillsboro and am here today as the vice chairman of the North Dakota Ag Coalition. On behalf of the Ag Coalition, I would encourage your support of HB 1020.

The Ag Coalition has provided a unified voice for North Dakota agricultural interests for 20 years. Today, we represent 30 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 business climate for North Dakota's agricultural producers.

The Ag Coalition takes a position on only a limited number of issues brought to us by our members that have significant impact on North Dakota's agriculture industry. Agricultural research and extension continues to be one of our top priorities.

We appreciate your past support and would urge your continued support of research and extension as they have been and will continue to be driving forces in the future of North Dakota's agriculture industry. These programs provide valuable information, education and tools for the state's producers.

It is for these reasons, we encourage your support of HB 1020.

(10)

North Dakota AG COALITION

P.O. Box 2599
Bismarck, ND 58502
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MEMBERS

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North Dakota Barley Council

[illegible] Dakota Beef [illegible]ission

North Dakota Corn Growers Association

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North Dakota Pork Producers

North Dakota Soybean Growers Association

North Dakota State Seed Commission

North Dakota Wheat Commission

[illegible]ern Canola Growers [illegible]ation

[illegible]hern Plains Potato Growers Association

Northern Pulse Growers Association

Red River Valley Sugarbeet Growers

Testimony of Kent Albers
North Dakota Ag Coalition
HB 1020
March 1, 2007

Chairman Holmberg and members of the Senate Appropriations Committee:

I am Kent Albers. I farm and ranch near Center and am here today as the chairman of the North Dakota Ag Coalition. On behalf of the Ag Coalition, I would encourage your support of HB 1020.

The Ag Coalition has provided a unified voice for North Dakota agricultural interests for 20 years. Today, we represent 30 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 business climate for North Dakota's agricultural producers.

The Ag Coalition takes a position on only a limited number of issues brought to us by our members that have significant impact on North Dakota's agriculture industry. Agricultural research and extension continues to be one of our top priorities. The Coalition endorses the executive budget for the Agriculture Research Station, the Cooperative Extension Service and the Northern Crops Institute, and the SBARE items as prioritized.

We appreciate your past support and would urge your continued support of research and extension as they have been and will continue to be driving forces in the future of North Dakota's agriculture industry. These programs and projects provide valuable information, education and tools for the state's producers.

It is for these reasons that we encourage your support of HB 1020.

January 15, 2007
HB 1020

ECONOMIC DEVELOPMENT ASSOCIATION OF NORTH DAKOTA
Handout #4

Same testimony given to the Senate

PO BOX 2639 • 2000 SCHAFER STREET • BISMARCK, NORTH DAKOTA 58502

Testimony of Carol Goodman
Economic Development Association of North Dakota
House Bill 1020
January 15, 2007

Chairman Wald and members of the Education and Environment Division of the House Appropriations Committee:

My name is Carol Goodman. I am currently president of EDND, the Economic Development Association of North Dakota (EDND). EDND is the voice of the state's economic development community and provides networking for its 80 members, which include development organizations, communities, businesses and state agencies. Our mission is to increase economic opportunities for residents of the state by supporting primary sector growth, professionalism among economic development practitioners and cooperation among development organizations. We are asking that you support HB 1020 and thus, North Dakota's economic growth.

These are exciting times to be working in economic development in North Dakota due to a positive economy, emerging opportunities in agriculture and energy, technology, and the development and marketing of each community's unique characteristics. While this positive atmosphere does not in any way reduce the challenges of rural communities, we are fortunate to have in place the resources of a comprehensive economic development system to get the job done.

We have all worked hard in the past several years to create our economic development network consisting of visionary legislation that provided incentive programs, the establishment of the Department of Commerce, the cooperation of state agencies, such as the Bank of North Dakota, and community partnerships with the North Dakota University System. EDND would like you to know that this partnership is working.

EDND has provided you with its 2007 Legislative Agenda, which reflects the diversity of our membership. In it you will notice several references to the importance of agricultural economic development, and EDND supports the NDSU Research and Extension budgets as contained in HB 1020. Agriculture is our primary industry, and continued development of research and education is key to the future of all North Dakota communities.

EDND is very appreciative of the extent to which the Governor's budget supports NDSU Research and Extension. We also respectfully ask and encourage you to carefully consider additional support, to the fullest extent possible, for initiatives and programs that are vital to quality community development. Some examples are the 4-H and Rural Leadership programs, waste management, swine and livestock development, and ag business development. We consider the "Grow 21" document an excellent reflection of the needs of North Dakota communities.

North Dakota State University is a valued partner for economic development. EDND requests that you support the vision of HB 1020.

Thank you, and I will be pleased to answer any questions.

January 15, 2007
HB1020
Handout #3a

RLND Program

Rural Leadership North Dakota (RLND) is a dynamic two-year interactive study and travel program dedicated to producing graduates with the vision and commitment to lead themselves, their organizations and communities into the future. This program emphasizes the development of skills such as working with people, managing projects, using technology, speaking in public and bringing about positive change.

How do I get more information about RLND?

Contact the RLND office with the NDSU Extension Service or go to our Web site at www.ag.ndsu.nodak.edu/rlnd.

Marie Hvidsten
RLND Program Director

North Dakota State University
309 Morrill Hall
P.O. Box 5437
Fargo, ND 58105-5437
701-231-5803
r-leader@ndsuext.nodak.edu

Rural Leadership
NORTH DAKOTA
Supporting Agriculture and Community Development

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.

Rural Leadership
NORTH DAKOTA
Supporting Agriculture and Community Development

"Prepare and develop effective leaders to strengthen rural communities." RLND Mission

NDSU
Extension Service

Rural
Leadership
NORTH DAKOTA
Supporting Agriculture and Community Development

Kidder County Web portal for information on Kidder County

A Vision of Recreation and Healthy Choices for Youth (playground equipment, baseball fields, skating rink, sledding hill and fishing pond)

Crafter's Guild to bring together local crafts people to sell their wares

Organic dog food company in Harvey

Leadership awareness – recruiting local high school and college students to sit on boards and committees

Youth/adult mentorship program

Creating an awareness of the importance of supporting local businesses

Assisting the after school program at Minto by providing senior volunteers from the community

Produce DVD to showcase life in McKenzie County

Marketing and planning for the rebirth of the Langdon area

Create recordings and videos of the history as experienced and heard from the seniors still living in the Kulm area

Provide a substantial, sustainable revenue stream for the Retired Senior Volunteer Program organization

Fit4Life

Impact North Dakota

Horse Camp and Trails

South Main Street Beautification

Youth volunteers — service learning

Rural
Leadership
NORTH DAKOTA
Supporting Agriculture and Community Development

Goals

To create a network of people across the state and beyond that RLND participants will utilize for a lifetime.

To strengthen participants skills in discovering leaders within, communicating effectively, recognizing gifts and differences, thinking critically and creatively, managing projects, understanding the resource spectrum, understanding North Dakota ag and rural policy, and affecting change — the power of individuals working together.

To improve the quality of life for the participant, organization(s), and community.

To prepare the participant to work with and implement a project in an organization and/or community.

Rural
Leadership
NORTH DAKOTA
Supporting Agriculture and Community Development

RLND Orientation
October 14-15, 2005 • Bismarck, ND

Discovering Leaders Within
November 17-19, 2005 • Fargo, ND

Communicating Effectively
January 19-21, 2006 • Watford City, ND

Thinking Critically and Creatively
March 2-4, 2006 • Hettinger, ND

Managing Projects/Entrepreneurship
April 6-8, 2006 • Valley City, ND

Recognizing Gifts and Uniqueness
October 12-14, 2006 • Devils Lake, ND

Understanding the Resource Spectrum
November 16-18, 2006 • Bottineau, ND

Understanding Ag and Rural Policy
January 18-20, 2007 • Bismarck, ND

Washington, D.C. Study Tour
February 27–March 4, 2007

Affecting Change; The Power of Individuals Working Together
April 12-14, 2007 • Beulah, ND

RLND Graduation Celebration
October 13, 2007 • Bismarck, ND

Testimony on House Bill 1020
Monday, January 15, 2007

Mr. Chairman and members of the committee, my name is Craig Larson from Bismarck. I am the President and CEO of Starion Financial. I'm in favor of House Bill 1020 with the addition of funding for the leadership education and 4-H funding initiative for the following reasons.

Leadership education and healthy, vibrant communities

Leadership education is critical to healthy, vibrant communities. Initiatives and projects begin and move forward because community leaders collectively step forward to work on and complete critical projects in their communities. Starion Financial has bank offices in four North Dakota communities (Bismarck, Mandan, Oakes, Ellendale), and we have seen firsthand the difference that community leaders have in these towns. It is absolutely critical to the success of a town. The mission of the Rural Leadership North Dakota (RLND) Program is to prepare and develop leaders to strengthen rural communities. Why wouldn't every community across North Dakota want the advantage of having individuals in their communities attend RLND and learn more about providing leadership to their community? This is a strategic advantage that every community needs in order to success into the future.

Benefits to organizations and communities

John Zetocha, a Vice President in our Oakes bank, was a member of the first Rural Leadership North Dakota (RLND) Class. Our investment in John's leadership training will pay itself back many times over through his enhanced ability to do his job and lead the Oakes community forward. John talked about his RLND experience, "I believe all of us who have been part of or experienced RLND had life-altering experiences. Creating positive change is what leadership is all about. RLND brings together and fosters the attitude of "we can" by sharing and working together - networking."

Rural Leadership North Dakota is the right program at the right time

I have been a member of the Rural Leadership North Dakota Council and the Financial Development Committee within the council for four years. I am so impressed that in the short number of years of this program, that we have created from scratch a first-class program, and that we have already completed one class and nearly through with the second. We have a strong record of accomplishment, and look forward to many of our participants making a real impact on this state.

Personal belief in the RLND Program

On a personal note, I think this is one of the best investments my wife and I could make for North Dakota. I plan on being involved in business in North Dakota for many more years, and see this as a very tangible way to ensure the state continues to have strong leaders long into the future.

Starion Financial has had a participant in the Bismarck-Mandan Chamber of Commerce Leadership Program nearly every year for the past 10 years. The large communities are fortunate to have the resources to support this type of program locally, and I believe strongly that RLND brings that same level of experience to people across the state, in small and large towns, and people who live far into the rural areas of our state.

Thank you for this opportunity to testify in support of House Bill 1020 with the addition of the extension service's number one funding priority, leadership education and 4-H. I believe the RLND Program has made a difference in North Dakota and will continue to build the leadership foundation our communities need to retain and recruit individuals and families in North Dakota.

January 15, 2007
HB 1020
Handout #3

Key points of testimony supporting leadership education/4-H funding:

~ There is a critical need for leadership education to build a strong leadership base across ND.

~ The mission of Rural Leadership is to prepare and develop leaders to strengthen rural communities.

~ Healthy communities have individuals who are willing to step forward to work on projects and initiatives.

~ Rural Leadership helps prepare individuals to gain skills and confidence to lead efforts in their communities and state.

~ Testimonials from participants of Rural Leadership:

"..project has started a major shift in the community that will have long-lasting effects."
"This program has greatly enhanced my decision-making abilities."
"..taught me to have a vision and see that vision through."
"As a direct result of the learning experience of RLND I already have become involved in several projects in communities in my area."
"RLND has given me the confidence that I can make a difference in my community."
"Rural Leadership has provided me with a network of fellow North Dakotans who have similar desires and goals of keeping the state viable and prosperous."

~ Extension service received start up funds from NDSU to hire a director. The balance of the costs are paid by donations and grants from individuals, businesses and foundations and participant tuition. Extension service is unable to sustain the staffing cost of this program beyond the end of the five year pilot (July 1, 2007).

~ We are asking for a "do pass" recommendation for the Extension Leadership Ed (RLND) and 4-H funding initiative to be added to House Bill 1020. Both are proven leadership programs in ND that need the partnership of state support!

Given by Julie Burgum
Council member of Rural Leadership

January 15, 2007
HB1020
Handout #3b

Prepare and develop effective leaders to strengthen rural communities. RLND Missio

Contact NDSU Extension office for a copy of this report

Rural Leadership NORTH DAKOTA

RLND 2003-05 Class Summary

October 2005

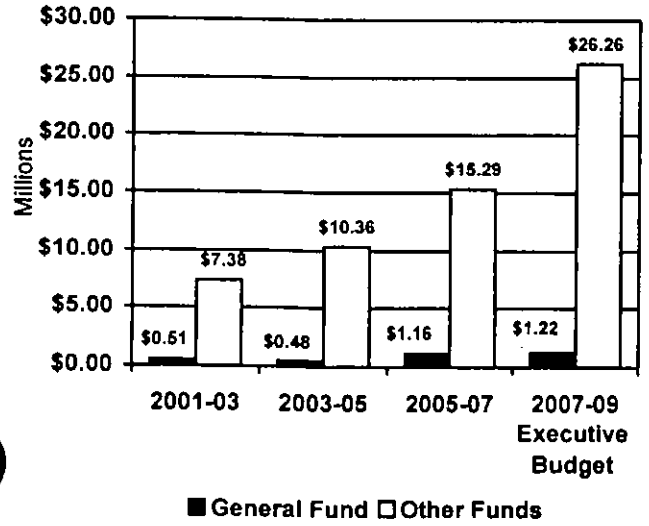
Department 627 - Upper Great Plains Transportation Institute
House Bill No. 1020

	FTE Positions	General Fund	Other Funds	Total
2007-09 Executive Budget	43.40	$1,223,884	$26,255,663	$27,479,547
2005-07 Legislative Appropriations	41.40 [1]	1,162,904	15,290,033	16,452,937 [2]
Increase (Decrease)	2.00	$60,980	$10,965,630	$11,026,610

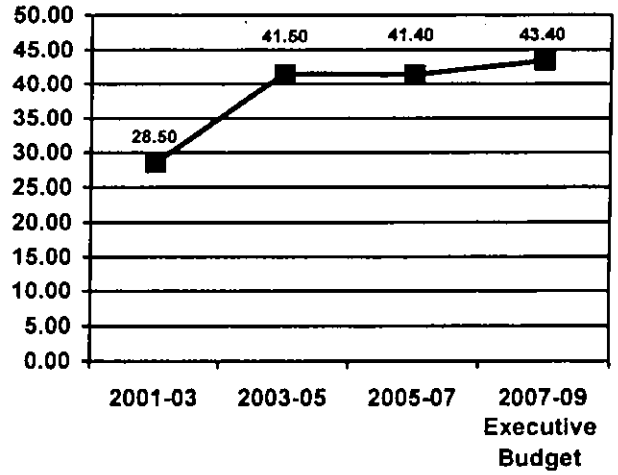
[1]The 2005-07 appropriation is based on 48.50 FTE positions. Section 6 of Senate Bill No. 2020 (2005) authorizes the State Board of Higher Education to adjust FTE positions as needed. A total of 7.10 FTE positions were removed pursuant to this section and reported to the Office of Management and Budget.

[2]The 2005-07 appropriation amounts do not include $49,700 of 2005-07 general fund carryover authority.

Agency Funding



FTE Positions



Executive Budget Highlights

	General Fund	Other Funds	Total
1. Adds federal funds spending authority for grants related to the Mountain-Plains Consortium		$2,225,000	$2,225,000
2. Adds other funds spending authority for an Upper Great Plains Transportation Institute building located on the North Dakota State University campus (emergency measure)		$5,500,000	$5,500,000
3. Provides spending authority for driver simulator equipment ($200,000) and SuperPave design lab equipment ($100,000)		$300,000	$300,000
4. Adds funding for operating costs due to an increase in continuing grants/contracts and anticipated new grants/contracts	$294,573	$1,355,454	$1,650,027
5. Adds funding for 2 FTE positions ($329,930), temporary salaries ($110,000), and operating costs ($116,845) for an Agriculture and Rural Business Logistics Center to conduct research relating to market policy issues in multimodal and container markets and in the rail-dominated traditional bulk grain handling system		$556,775	$556,775

Other Sections in Bill

Section 4 of House Bill No. 1020 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 2007-09 biennium.

Section 6 of House Bill No. 1020 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 the Office of Management and Budget.

Section 7 of House Bill No. 1020 authorizes the carryover of any unexpended general fund appropriation and excess income received by the Upper Great Plains Transportation Institute to the 2009-11 biennium.

Section 8 of House Bill No. 1020 provides that the $5.5 million authorized for the Upper Great Plains Transportation Institute building is an emergency measure.

Continuing Appropriations

No continuing appropriations for this agency.

Major Related Legislation

At this time, no major legislation has been introduced affecting this agency.

Prepared by the North Dakota Legislative Council staff for Senate Appropriations
February 26, 2007

Department 627 - Upper Great Plains Transportation Institute House Bill No. 1020

	FTE Positions	General Fund	Other Funds	Total
2007-09 Executive Budget	43.40	$1,223,884	$26,255,663	$27,479,547
2005-07 Legislative Appropriations	41.40 [1]	1,162,904	15,290,033	16,452,937 [2]
Increase (Decrease)	2.00	$60,980	$10,965,630	$11,026,610

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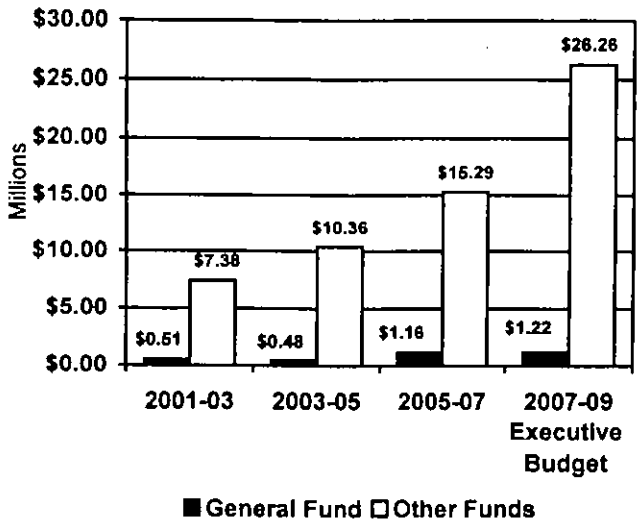
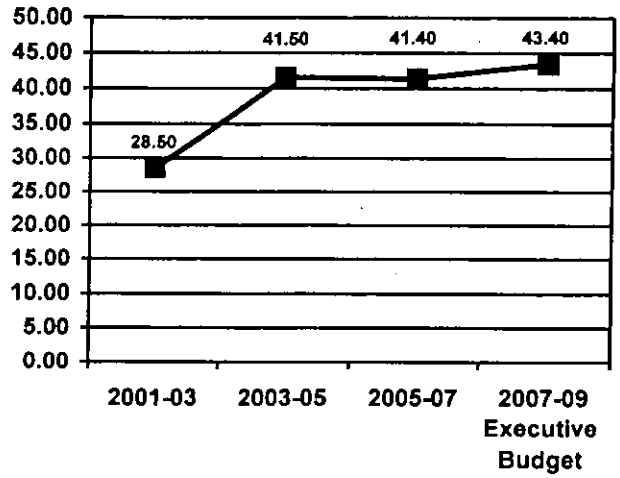
[2]The 2005-07 appropriation amounts do not include $49,700 of 2005-07 general fund carryover authority.

Agency Funding



FTE Positions



First House Action

Attached is a summary of first house changes.

Executive Budget Highlights

	General Fund	Other Funds	Total
1. Adds federal funds spending authority for grants related to the Mountain-Plains Consortium		$2,225,000	$2,225,000
2. Adds other funds spending authority for an Upper Great Plains Transportation Institute building located on the North Dakota State University campus (emergency measure)		$5,500,000	$5,500,000
3. Provides spending authority for driver simulator equipment ($200,000) and SuperPave design lab equipment ($100,000)		$300,000	$300,000
4. Adds funding for operating costs due to an increase in continuing grants/contracts and anticipated new grants/contracts	$294,573	$1,355,454	$1,650,027
5. Adds funding for 2 FTE positions ($329,930), temporary salaries ($110,000), and operating costs ($116,845) for an Agriculture and Rural Business Logistics Center to conduct research relating to market policy issues in multimodal and container markets and in the rail-dominated traditional bulk grain handling system		$556,775	$556,775

Other Sections in Bill

Section 4 of Engrossed House Bill No. 1020 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 2007-09 biennium.

Section 6 of Engrossed House Bill No. 1020 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 the Office of Management and Budget.

Section 8 of Engrossed House Bill No. 1020 authorizes the carryover of any unexpended general fund appropriation and excess income received by the Upper Great Plains Transportation Institute to the 2009-11 biennium.

Section 13 of Engrossed House Bill No. 1020 provides that the $5.5 million authorized for the Upper Great Plains Transportation Institute building is an emergency measure.

Continuing Appropriations

No continuing appropriations for this agency.

Major Related Legislation

At this time, there is no major legislation affecting this agency.

ATTACH:1

HB 1020
January 9, 2007
Handout #1

NDSU
legislative update

NORTH DAKOTA STATE UNIVERSITY FARGO, ND

HOUSE APPROPRIATIONS COMMITTEE
EDUCATION & ENVIRONMENT DIVISION
Representative Francis J. Wald, Chairman

11:00 a.m.
Tuesday, January 9, 2007

HB 1020
NORTH DAKOTA STATE UNIVERSITY
Upper Great Plains Transportation Institute
Gene Griffin, Director

www.ndsu.edu/legislators

Upper Great Plains Transportation Institute
North Dakota State University

The Upper Great Plains Transportation Institute educates people, conducts research, and provides outreach in the areas of small urban and rural transportation and logistics to enhance the mobility of people, goods, and agricultural commodities. It accomplishes this mission by:

- Developing and applying knowledge, information and innovation in the public and private sector to improve competitiveness, efficiency, safety, and personal mobility.
- Educating, training and mentoring transportation practitioners and leaders in a rapidly advancing and increasingly complex field with sophisticated technology applications.
- Excelling as one of the premier university transportation centers in the United States so that it can continue to attract talent and funding to enhance North Dakota's economy and quality of life.

Program Areas

Academic Programs

Ph.D. in Transportation and Logistics
Master of Military Logistics
Transportation Option, masters in Civil Engineering, and Agribusiness and Applied Economics

Research and Outreach Programs

Advanced Traffic Analysis Center (ATAC)
Agricultural and Industrial Freight Center
Biennial Strategic Freight Analysis Center
Department of Transportation Support Center (DOTSC)
National Clearinghouse - Local Technical Assistance Program
Mountain-Plains Consortium (MPC)
Small Urban & Rural Transit Center (SURTC)
North Dakota Local Technical Assistance Program
Transportation Learning Network (TLN)
Transportation Safety Systems Center (TSSC)
Rural Transportation Safety and Security Center (RTSSC)

New programs this biennium.
Programs with significant growth this biennium

Selected Program Accomplishments

Education

- The UGPTI is coordinating the new Masters of Military Logistics program offered by NDSU. This intensive 12-month program is offered to officers and military civilians. It provides them with the latest transportation and logistics research, technology and applications needed to improve the efficiency, effectiveness and responsiveness of logistical and transportation systems within the military.
- During FY 05-06 14 students were enrolled in the NDSU interdisciplinary doctoral program in Transportation & Logistics, up from six when the program was launched in 2002.
- NDSU student Alan Dybing was named 2005 Region VIII Student of the Year by the U.S. Department of Transportation's University Transportation Center Program. Dybing is now an associate research fellow with the UGPTI and is continuing to work on his Ph.D. in Transportation & Logistics.
- Four $1,500 scholarships are funded each year at NDSU by the Mountain-Plains Consortium. Eighteen scholarships have been awarded since they were established in 2002.
- NDSU students in a graduate-level engineering course in quantitative modeling are applying their newly developed skills to snowplowing. UGPTI researchers, in conjunction with NDDOT staff, helped develop a course project where students apply quantitative modeling techniques to snowplowing operations to look for ways to improve the process.
- Undergraduate engineering students in the DOTSC student design center learn roadway design through hands-on involvement in NDDOT projects ranging from Interstate reconstruction to asphalt overlays and improved safety features on two-lane highways.
- Students working with ATAC use state-of-the-art traffic simulation software and collect traffic data using radar and video detection technologies. They designed a controller interface device that links traffic control hardware with computerized traffic models.

Outreach

- The MPC expanded its short-course offerings to DOT personnel in the region. Topics included updates on the use of Superpave and asphalt-rubber binders in road maintenance and rehabilitation, demographics of mobility-challenged N.D. residents, highway traffic impacts of large grain elevators, and fundamentals of freight railroad capacity.
- ATAC developed a unique partnership to provide urban transportation modeling for the NDDOT, metropolitan planning organizations, and other N.D. agencies to evaluate traffic capacity and flow in cities and areas experiencing commercial and residential development.
- The TLN is launching a four-state initiative to provide technical training to department of transportation professionals. Examples include a series of concrete technology seminars, a session on applied statistics, and workshops on low-cost safety improvements, measuring the reflectivity of road signs and using GPS for equipment control.
- SURTC selected the Enderlin, ND, school district to work with in testing its school bus routing program. SURTC is developing easy-to-use, low-cost software specifically designed to help rural and small urban school districts design bus routes that make the best use of buses and fuel while minimizing the amount of time students must spend on the bus.

- SURTC and the N.D. Department of Public Instruction conducted a School Transportation Efficiency training program in 2006 with six modules provided at locations throughout North Dakota. Topics include coordinated maintenance, routing, technology, safety, and security.
- Specialists provided training to help transit agency managers and their employees improve their skills. SURTC workshops for transit managers focused on developing business plans and implementing performance measures. SURTC also helped implement and conducted passenger service and safety (PASS) training for bus drivers. PASS training is part of a national certification program.
- Work continued in support of the NDDOT's pavement preservation initiative. The effort consisted primarily of performance analysis of preservation strategies. The UGPTI also provided assistance to the NDDOT construction strategies group in assessing ways to reduce concrete construction costs.
- The TSSC continues to develop and maintain high-quality software for use by federal and state commercial vehicle safety specialists nationwide to conduct inspections, check on driver's license status, review information from past inspections, review carriers' safety and violation history, and develop case files for enforcement activities.
- The TSSC is working with the Federal Motor Carrier Safety Administration and U.S. Customs and Border Protection to improve truck and bus safety and security at U.S. borders.
- ATAC launched the Small Urban and Rural Transportation Operations Coalition to focus on the transportation operation needs of rural and small communities.
- The North Dakota Traffic Operation Roundtable was established by ATAC in 2004 to support traffic engineers across North Dakota and the region and allow peers to share ideas, identify critical issues, provide experiences, and guide ATAC's traffic operations activities.
- Researchers developed a process to help county officials develop plans to maintain and improve their road systems. The process is designed to make the best use of limited resources and be easily adapted to a county's unique situation.
- UGPTI staff played key roles in a Research Opportunities in Radio Frequency Identification Transportation Applications Conference in Washington. The October conference, sponsored by the Transportation Research Board, attracted nearly 100 researchers, policy experts and transportation agency representatives. UGPTI Director Gene Griffin was chair of the planning team. A dozen researchers and students from NDSU attended. UGPTI staff helped report on sessions and compiled a proceedings publication.

Research

Highway Planning

- Researchers are exploring the criteria necessary for analyzing data needed to establish regional freight corridors. The information will give transportation officials and policy makers tools to use in evaluating potential freight corridors.
- NDSU and University of Wyoming researchers are studying data from highways across the region to develop a computer model that predicts how long various pavements will last, how fast they deteriorate and when they need repair or replacement.
- DOTSC supported the NDDOT strategic plan objectives to refine and implement highway modal investment strategy, and refine and implement a roadway classification system.

- Researchers studied a grain movement database maintained by the UGPTI for the North Dakota Public Service Commission to learn how grain moves to various elevators. The effort will help planners address traffic and safety concerns and road maintenance issues.

Rail

- Researchers are developing a system to help federal and state agencies as well as railroads decide how best to invest the limited funds available for upgrading and maintaining rail lines.
- UGPTI researchers helped update NDDOT's state rail plan to outline a shared vision for the N.D. rail system that incorporates input from the private sector and all levels of government.
- UGPTI researchers provided technical expertise to the N.D. Public Service Commission on rail-related matters such as grain elevator shipping patterns, railroad operations, and revenue-to-variable cost data. The commission sought UGPTI's expertise as part of its plans to pursue a rate complaint before the Surface Transportation Board. The Commission believes that its activities in the case to date caused the state's major rail carriers to implement rate reductions amounting to nearly $10 million in annual savings for state grain shippers and growers.

Transit and Personal Mobility

- With the help of students who rode buses to collect data, the SURTC helped Fargo-Moorhead's Metropolitan Area Transit gauge the satisfaction of its riders. The city used the survey to identify areas of concern and in developing a five-year transit plan.
- Researchers are examining the financial health of the small bus manufacturing industry and bus purchasing trends of the last 20 years. They are also studying Federal Transit Administration and local procurement policies and their impact on the manufacturing industry.
- SURTC is helping the NDDOT develop a matrix to compare transit management plans used by other states in the region. The effort should result in a new state management plan which will provide a clear set of instructions for transit providers.
- SURTC researchers are working with officials on the Turtle Mountain Indian Reservation to develop a coordinated transit plan as required for local agencies to receive funding from the Federal Transit Administration.
- The proportion of elderly remaining in small towns and rural areas continues to grow. The number of Americans older than 65 will more than double by 2030. A Small Urban & Rural Transit Center study should help researchers and policy makers assess the situation's impact on mobility needs.
- SURTC worked with the N.D. Department of Commerce to explore the feasibility of establishing vanpools across the state. New federal initiatives, a number of major employers in small communities and changing employment trends prompted the study.
- SURTC researchers generated 20-year population projections for each of North Dakota's 53 counties for a number of mobility-disadvantaged populations including: the elderly, those with go-outside-the home disabilities, children enrolled in school, and individuals living in households without vehicles. The study will help transit agencies and policy makers plan for the needs of these populations.

Traffic Analysis

- ATAC houses all regional travel models for the three metropolitan planning organizations in North Dakota. As such, ATAC provides, maintains, runs, and updates these models to support transportation planning.

- ATAC is facilitating a change in North Dakota laws to improve safety at signalized intersections during power failures. The change, sponsored unanimously by the N.D. Traffic Operations Roundtable, would require drivers to treat dark traffic signals as an all-way stop.
- Through a partnership with the city of Fargo, ATAC instrumented the 12th Ave. N. and 19th St. intersection to serve as a real-world laboratory for studying traffic control, expanding NDSU's ability to obtain research dollars.
- After several years of research and development, a controller interface device developed by ATAC is now used by researchers at the University of Virginia, Texas Tech University, and Siemens ITS. The device, called ATACid, enables researchers to model complex traffic control problems using actual traffic control systems in traffic simulation models.
- ATAC is enhancing safety and traffic operations in N.D. highway work. Researchers collected traffic and speed data along the I-29 construction corridor and worked with the N.D. Highway Patrol to evaluate impact of speed enforcement on corridor speeds.
- Researchers also conducted a review of two work zones along I-94: eastbound direction of I-94 between Valley City and Tower City; and westbound between Eckelson and Oakes. A field review of the work zones, including videotaping selected sections, was conducted to identify issues with signage and lane-closure requirements.
- NDSU students designed and built mounting bases for five Wavetronix advanced radar sensors so they could be used in the field for non-intrusive traffic data collection. ATAC tested and calibrated the sensors along I-29 in Fargo.
- Traffic analysts estimated region-wide user costs resulting from the I-29 construction for 2006. The analysis included estimating additional travel time using the Fargo-Moorhead Metropolitan Council of Governments' regional travel model and additional delay due to increased traffic at alternative routes.

Agricultural Research

- Specialists analyze transportation of U.S. grains by modal share to provide information about changes in the competitiveness and relative efficiencies among the modes. The analysis estimates the tonnages of grain railed, barged, and trucked to either the domestic market or to U.S. ports for export. The UGPTI works with the USDA in collecting data and updating the time series presentations in the report.
- The Agricultural and Industrial Freight Center summarizes grain movement reports from each elevator in North Dakota to describe distribution patterns and shipment characteristics – including destination, mode (rail or truck), origin, time, and commodity. Annual reports and monthly updates are used to encourage competition within the grain industry and to identify research needs and market trends.
- The UGPTI provides the USDA with updated market and service information for the rail section of the weekly Grain Transportation Report.
- UGPTI researchers compiled data from several studies on the feasibility of increasing intermodal shipping for the region to develop a comprehensive statewide plan for intermodal shipping. A key focus of the effort is to improve opportunities for shipping specialty agricultural products such as identity-preserved commodities and manufactured goods.
- Researchers are working with USDA, the N.D. Department of Agriculture and N.D. elevators to develop a case study on implementing formalized industrial-style quality assurance programs. Similar quality control systems are widely utilized in global business transactions as a means for ensuring quality products. By documenting the benefits of applying such a system to the grain

marketing system, researchers may help the state's grain industry enhance their position in the competitive global grain market.

Other Research

- NDSU, Washington State University, and the University of Washington have developed a joint research and outreach center that focuses on freight mobility for the Northwest region of the United States. This regional approach is vital to solving existing issues and enhancing the future for freight transportation because of the interstate nature of commerce and the inter-jurisdictional issues that arise from it.
- Researchers are working to update and improve the ENO Transportation Foundation's Transportation in America publication. The report provides transportation statistical data for all modes of transportation and various facets of the transportation industry.
- Researchers are using information on driver convictions from the Commercial Driver's License Information System to better identify high-risk motor carriers. By electronically cross-referencing information in the system with information from commercial vehicle inspection and crash reports, researchers are able to create a driver safety index for commercial carriers. This index, when combined with other data, will help the Federal Motor Carrier Safety Administration and other agencies better target enforcement.
- Researchers completed a biennial Strategic Freight Analysis for the NDDOT on regional truck size and weight issues. Standardizing truck size and weight issues in the region could enhance the mobility of freight, improving the competitiveness of businesses.
- Researchers also completed an intermodal freight feasibility study for the Fargo-Moorhead Metropolitan Council of Governments which provided a springboard for a statewide effort to bring more intermodal freight terminal options to N.D. shippers.
- At the request of the N.D. Legislature, UGPTI researchers examined the relationship between investments in transportation infrastructure and economic development, particularly how those investments impact producers and manufacturers and their ability to market their products. The researchers evaluated the impact of factors ranging from seasonal load limits on North Dakota highways to levels of air service across the state. They also looked at the economic benefits of railroad services in the state.
- Researchers are developing information to enable the NDDOT to begin their freight planning process. The DOT's plan will detail how the state system is integrated with regional, national and global systems and define the state transportation systems major participants and their roles and responsibilities. It will present an overview of the state's current freight system including infrastructure, regulatory environment and safety and security. Finally, the plan will provide planners and policy makers with recommended changes and improvements to maintain a safe, secure and efficient freight system.
- ATAC worked with the NDDOT to develop statewide guidelines for using dynamic message signs to ensure consistency across the state and enhance mobility and safety of travelers. As part of the effort, researchers conducted an extensive review of federal guidelines and practices in other states.
- ATAC worked with transportation consultants to develop project-level architecture, devise communications alternatives and support the development of bridge anti-icing systems, particularly the system installed on the Red River bridge in Fargo. ATAC has also helped evaluate anti-icing system alternatives for the Memorial Bridge in Bismarck.

Program Growth

Thanks in part to increased state funding for base programs, the UGPTI continues to grow significantly. UGPTI researchers have leveraged state funds in efforts that will have state, regional and national impact. Examples include:

- The Mountain-Plains Consortium won re-competition under the U.S. Department of Transportation's University Transportation Centers program for research, outreach and education programs to address regional transportation issues. NDSU provides leadership to this effort which also includes Colorado State University, South Dakota State University, the University of Utah and the University of Wyoming.
- The Small Urban & Rural Transit Center received funding through the Federal Transit Administration to address transit issues and opportunities in small cities, rural communities and rural areas.
- The Rural Transportation Safety & Security Center receives funding through the Federal Highway Administration annually to promote and enhance the region's transportation safety and security through research, education and outreach. A Rural Transportation Safety and Security Summit in August was attended by nearly 100 policy makers, elected county officials, emergency planners and responders and representatives from transportation agencies and private firms. Input from the conference is being used to refine the center's objectives and programs.
- The N.D. Local Technical Assistance Program Center has been moved from the NDSU Department of Civil Engineering to the UGPTI. The center is funded by the Federal Highway Administration to improve access to highway transportation-related technology for local units of government. Although managed by the UGPTI, the center will be located in Bismarck to improve cooperation with and access from NDDOT personnel.
- The UGPTI is working with the American Road and Transportation Builders Association in Washington D.C. to manage the National Local Technical Assistance Program/Tribal Technical Assistance Program Clearinghouse. The program serves as an exchange for highway transportation-related technology and information for local units of government and state LTAP centers.
- The Transportation Learning Network (formerly Tel8) changed its name, updated its mission and added an executive advisory board. The shift to Internet-based video reduced operating costs and makes the network available to more users while allowing instructors to integrate with other Internet-based teaching tools. One new option is to use server technology to give users more flexibility in where and when they access programs. The network now has a closer tie to DOTs in the region and is increasing the number of seminars, short-courses and other educational offerings to transportation-related professionals.

Future

The mobility of people and goods will continue to play an integral role in the future of North Dakota and the Upper Great Plains region. Consequently, the UGPTI will continue to address mobility-related challenges and opportunities.

Rural economic development continues to be a key issue. The UGPTI helps the NDDOT allocate scarce resources to maintain and upgrade transportation infrastructure. At the same time, UGPTI researchers help policy makers and entrepreneurs explore innovative transportation solutions. For example, specialty crop production is growing in the state, but shipping those crops requires that they remain separate from other commodities. RFID and other technologies offer opportunities to enhance safety and security as well as efficiency. New trends and developments in the region's manufacturing, agriculture and energy

sectors will offer challenges. The following are among the new programs and efforts being developed to address these issues.

- A proposal for a new M.S. in Transportation and Urban Planning at NDSU is being developed by the UGPTI under the direction of the dean of the College of Graduate and Interdisciplinary Studies. The proposal recognizes the increasing need for qualified transportation planners; emerging transportation, community, and environmental issues; and the changing knowledge areas necessary to support these needs and issues. Several NDSU departments have expressed interest in participating in the program. The proposal will be presented for review and potential approval during spring semester.
- UGPTI will investigate and demonstrate technologies that enhance personal and freight mobility and improve transportation security and safety. The Institute is partnering with the Vehicle Traffic Information Coalition, a group of auto manufacturers and technology companies exploring technologies to enhance real-time traffic management. The project will focus primarily on cutting edge in-vehicle navigation, traffic monitoring and environmental sensor technologies, including RFID.
- The proposed Center for RFID Transportation Applications would focus on increasing freight and personal mobility and improving transportation system efficiency and effectiveness through the application of RFID technology. Applied research would focus on transportation infrastructure design and management; transportation operations; supply chain management; human mobility; and safety and security. The program would build on existing NDSU strengths in RFID and transportation-related research.
- Elevated energy prices are driving development of renewable and traditional energy resources across the region. That development holds considerable promise for the region. At the same time, elevated energy prices have a significant impact on transportation costs for moving people and freight. Development of energy resources will place new challenges on the region's transportation system, while elevated energy prices will influence business practices and competitiveness as well as trends in where people live, work and shop. The UGPTI is positioned to assess those challenges and trends for planning and development.
- The UGPTI is developing a proposal for its own building to provide a home for faculty, staff, students and programs that are now spread across campus in three different buildings. The building would be a focal point for transportation and logistics efforts on campus and enhance the Institute's ability to interact with agencies and businesses through on-campus programs and meetings or through distance-education enabled by technology. The proposed three-floor building would have approximately 6,000 square feet on the main floor and will be constructed with a combination of federal funds, gifts, grants and contracts.

Budget

We endorse the 2007-2009 Executive Budget recommendation for the Upper Great Plains Transportation Institute. The level of funding for UGPTI programs in the Executive Budget will provide necessary funding for administrative support to continue to grow and leverage our programs to provide the analysis, training, and leaders for the North Dakota transportation system of tomorrow. We respectfully request that the North Dakota House support the Executive Budget recommendation for the UGPTI as well.

HB 1020
January 9, 2007
Handout #2

VEHICLE TRAFFIC INFORMATION COALITION

Board Members

- ESRI
- Honda
- Mark IV
- NAVTEQ
- Nissan
- TeleCommunication Systems
- Tele Atlas
- Toyota
- Traffic.com
- Volkswagen
- Wavetronix
- XM Satellite

Vision & Purpose

VISION
Every road implemented to deliver real time traffic data at high quality & low cost.

PURPOSE
To promote the creation, collection and availability of high quality, real time traffic data for drivers everywhere.

Key Objectives

EDUCATE: Federal, State, Local governments; Transportation managers and operators.

DATA: Work to ensure build out of data capturing infrastructure and make data accessible.

LEGISLATION: Monitor bills and act in Coalition's interest, where necessary.

PROMOTE: Foster growth of technologies and the market.

DOT: Support Secretary Mineta's Six-Point Plan to reduce congestion.

Partnering: American Highway Users Alliance, Congressional E-911 Institute, ITS Industry Advisory Committee, ITS America, Society of Automotive Engineers, and 511 Coalition.

HB 1020

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NDSU
legislative update

NORTH DAKOTA STATE UNIVERSITY FARGO, ND

SENATE APPROPRIATIONS COMMITTEE
Senator Ray Holmberg, Chairman

2:00 p.m.
Wednesday, February 28, 2007

With the exception of page 8 here, the same testimony was given to House and Senate

HB 1020
NORTH DAKOTA STATE UNIVERSITY
Upper Great Plains Transportation Institute
Gene Griffin, Director

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Budget

We concur with the action of the House Appropriations Committee in regard to the budget for the Upper Great Plains Transportation Institute. The level of funding provided for UGPTI programs under HB 1020 will provide necessary resources for administrative support to continue to grow and leverage our programs to provide the analysis, training, and leaders for the North Dakota transportation system of tomorrow. We respectfully request that the North Dakota Senate accept the portions of HB 1020 related to the UGPTI as forwarded by the North Dakota House of Representatives.

2-28-07 2pm

2a

HB 1020 – Upper Great Plains Transportation Institute Budget
Senate Appropriations Committee
February 28, 2007, Harvest Room – North Dakota Capitol

Testimony by Neal Fisher, North Dakota Wheat Commission,
UGPTI Advisory Council Chairman

Mr. Chairman and members of the committee, my name is Neal Fisher. I am the chairman of the statutory advisory council for the Upper Great Plains Transportation Institute, and I am here today to respectfully urge your support of the Institute's budget as approved by the House of Representatives.

In today's rapidly changing marketing and transportation environment we are indeed fortunate to have in our state one of the premier transportation centers in the nation. Our state's transportation infrastructure is vital to the industries and enterprises that are the lifeblood of North Dakota's economy, and critical to providing necessary services to our rural and urban communities.

Wearing my other hat, as Administrator of the North Dakota Wheat Commission, and being heavily involved in our state's primary industry, I know the future success of agriculture is critically dependent on an efficient and responsive logistical infrastructure.

As we look to the future, the Institute's programs -- academic, research and outreach -- all will be increasingly important as we allocate hard won resources to build that infrastructure in a cost-effective and responsible manner.

We are living in exciting times, and there are exciting new opportunities emerging in our state and nation. Demand for what we produce in North Dakota is growing. Prices for our basic commodities, livestock, specialty crops, and energy related natural resources have risen dramatically, bringing nearly unprecedented levels of revenue into the state.

Our wheat and durum crops have long enjoyed "specialty crop" status due to their premium, high performance nature, and continue to be sought worldwide for their quality and performance traits – and at premium prices. Now, we have a growing number of new and emerging "specialty" crops, new products, and new uses for traditional crops including renewable energy and other innovative applications. Cutting edge research, sound analysis and training will be required to fully capitalize on these new and lucrative developments, and to equip state and national policymakers to plan for our future transportation, marketing, and service needs.

For example, greater interest in renewable energy production and identity preserved marketing niches will require more attention to inter-modal and other innovative transportation systems to accommodate these new and developing industries and services. Our more traditional applications will also require even greater efficiencies as markets continue to diversify and evolve.

Programs conducted at the Institute will help us to address and adapt to these and other exciting new opportunities. I respectfully urge your support of the budget for the Institute and its programs as forwarded by the House of Representatives. Thank You.

HB 1020

(2b)

Agricultural Programs

UPPER GREAT PLAINS TRANSPORTATION INSTITUTE • NDSU

North Dakota agriculture is a dynamic industry, with the state's agricultural producers facing more challenges and unique opportunities than ever before.

The biofuel industry is changing the supply and demand picture for crops across the nation. At the same time, bio-security concerns are being raised. Biotechnology is raising new possibilities and issues for both crop and livestock producers. Specialty crops, exotic animals and organic products are opening high-value niche markets to North Dakota producers.

In the broadest sense, the scope of the state's agricultural productivity is staggering. The total value of North Dakota crop production in 2006 was the highest ever – $3.66 billion. Add to that, livestock production ($760 million for the value of cattle and calves in 2005) and value-added and associated industries and it's clear that agriculture is a dominant economic influence on the state.

That economic capability creates a myriad of transportation challenges. Moving commodities and products to where they are needed is complex and costly. Maintaining product quality and preserving product identity is becoming more important.

Researchers at the Upper Great Plains Transportation Institute at North Dakota State University identify and analyze trends in production and transportation to provide information to producers and businesses so they can anticipate opportunities and pitfalls. They also evaluate costs so shippers can be more efficient. UGPTI analysis and information is also used by policy makers as they evaluate alternatives to improve the state's agricultural and business climate.

The UGPTI's history is rooted in agriculture. The institute was created to provide information and analysis regarding transportation of agricultural commodities and products. Although the Institute's scope of programs has expanded greatly to accommodate the state's evolving transportation needs, as allowed by its enabling law, it continues to focus a portion of its resources on agricultural transportation challenges and opportunities.

Because of limited resources, the Institute can only conduct research and outreach in areas where funding is available. And as an academic institution, the UGPTI's role is to conduct research, education and outreach. It has no advocacy role. Its research and data do, however, serve as a valuable resource for non-governmental organizations that represent farmers and shippers, and for some government entities.

Following is an overview of recent and on-going research and outreach conducted by UGPTI researchers.

Agricultural Trucking Conference – The UGPTI is leading the development of a national conference on agricultural and food trucking to be held April 25-26, 2007 in Washington DC. The event is being organized in cooperation with the Agricultural and Food Transporters Conference of the American Trucking Associations, the U.S. Department of Transportation, and the U.S. Department of Agriculture. The conference will provide a forum for industry representatives, policy makers, academics and public sector agencies to present ideas and exchange knowledge about agricultural trucking issues. U.S. Secretary of Agriculture Michael Johanns will open the event with a keynote address April 25. His willingness to address the conference indicates the importance of the Summit to the agriculture and trucking industries, and the dependency of agriculture on commercial agricultural trucking in the 21st Century. For more information visit www.agandfoodtrucking.org .

Alternative Fuel Regulation – The institute is studying the economic and environmental implications of alternative fuel use and regulations in the Mountain-Plains region to provide a benefit/cost analysis of switching from traditional to alternative fuels (such as ethanol and biodiesel) for consumers. Researchers are analyzing users that would be affected by alternative fuel policy mandates and examining potential demand for such products. Included will be a comparison of existing alternative fuels and related effects on the transportation sectors, as well as an overview of associated mandates/incentives that have been implemented in other states.

Grain Quality Assurance – - The competitive position of grain producers is continually influenced by the environment, agronomics, markets, and policy. The objective of the N.D. grain facility supply chain quality assurance project is to assess potential quality assurance programs for the N.D. elevator supply chain in cooperation with industry partners, and to

develop a program of quality control process. The program may enhance the position for North Dakota producers' grain by ensuring compliance with quality standards through a third party auditing system based on the goals of individual grain facilities. While many of the inherent grain qualities such as moisture and protein are already specified in contracts, the processes and standards in handling, testing, and environmental controls are not typically transparent to the buyer. Quality control systems are widely utilized in global business transactions as a means for ensuring quality products in a business relationship. The ability of the North Dakota grain industry to assess and adopt such as system provides a unique opportunity for enhancing their position in a very competitive global grain market. This project is being conducted in cooperation with the U.S. Department of Agriculture, the N.D. Department of Agriculture, the N.D. Wheat Commission, and N.D. elevators.

Rail Grain Industry Fuel Surcharge – Researchers compiled data, reviewed markets and analyzed tariff/ waybill information for Senator Dorgan's staff and the N.D. Wheat Commission and presented the findings to the N.D. Agricultural Legislative Council in June, 2006.

North Dakota Grain Movement Database and Elevator Survey – The N.D. Wheat Commission provides support to maintain and manage the N.D. grain movement database. Additional funding received this year will allow researchers to resume the annual transportation and marketing survey of N.D. elevators. Additional work supported by the N.D. Wheat Commission includes:

- Maintenance of a ND grain transportation database - each of the elevators in North Dakota submits monthly reports summarizing grain shipping activity by mode, commodity, and market.
- Periodic statistics for North Dakota grain movements - the UGPTI compiles market flow, intramodal, and intermodal grain marketing statistics; generates tables, graphics for identifying shifts/trends; provides information back to grain industry participants.
- Sample Custom Grain Movement Data Requests - examples of uses include: elevator market share, railroad car and power unit planning, N.D. Department of Agriculture elevator sample collection, market flow information crop quality districts, value-added ventures, and N.D. Department of Transportation for planning rail line rehabilitation and road investment.
- *North Dakota Elevator Marketing Report* - contains more specific transportation data including crop reporting district, mode, and destination distribution.
- *North Dakota Grain & Oilseed Transportation Statistics* - general commodity flow statistics for grain originated from N.D. elevators.
- *Survey of ND Elevators* – collects information on transportation rates and service, in which the N.D. Wheat Commission will include questions to attain specific information for the proposed Mexico wheat marketing seminar.

Market News – The UGPTI conducts on-going market news development with the USDA Agricultural Marketing Service Transportation Services Branch. Researchers develop information for the weekly *Grain Transportation Report.* UGPTI provides about a quarter of the information for the weekly report, covering rail and truck grain transportation. UGPTI also provides information on national grain market prices, grain rail rates, rail service premiums, and grain truck rates and service. UGPTI is also working with the USDA on a Mexico component, focusing on U.S. grain export channels to primary Mexico consuming regions. UGPTI researchers also collect and summarize data to update the USDA's *Modal Share for U.S. Grains* publication. The modal trend information is used by industry and policymakers as they assess market and investment decisions.

Supply Chain Management – UGPTI researchers are working with colleagues with the Marketing Service Branch of the USDA Agricultural Marketing Service to develop information on supply chain management for agricultural products. This research project concentrates on marketing, technology, safety/security, and niche markets for small and medium sized agricultural producers/businesses. UGPTI researchers developed a case study based on the N.D. potato industry that will be used on the national website. USDA is designing the website to be a learning center and resource hub. UGPTI is also working with this group to identify potential case studies for applications of technology by small and medium sized agricultural producers and businesses, such as RFID, in the agriculture marketing chain.

U.S. Rail Indicators – This project focused on rail grain transportation. The first part of the project identified proxies and leading indicators for rail grain service that can enhance current weekly rail information. In the second part of the project, researchers surveyed shippers regarding service and interest in periodic survey of rail.

Technical Expertise in Rail Rates – UGPTI researchers provided technical expertise to the N.D. Public Service Commission on rail-related matters such as grain elevator shipping patterns, railroad operations, and revenue-to-variable cost data. The commission sought UGPTI's expertise as part of its plans to pursue a rate complaint before the Surface Transportation Board.

Economic Impact of Infrastructure – In conjunction with the NDDOT, UGPTI researchers have completed a study to assess the economic impact of transportation infrastructure in North Dakota. The study comprised an economic analysis of the state's highway, rail, and air networks. Researchers

used computer analysis to simulate the deterioration and rehabilitation of North Dakota's highway system over a 20 year period. From this baseline analysis, budget constrained analysis was performed to estimate the changes to pavement condition and user costs under the various scenarios. From this the total economic effects were estimated. A secondary component of the highway analysis was to develop a GIS network which modeled grain and manufacturing movements across the state system. Building upon this analysis, the benefits and costs of the implementation of spring load restrictions was estimated. The rail freight service analysis estimated the economic impacts of the branch line and regional railroad system in the state by re-routing the traffic from these systems to the main line track via the highway system. The increased cost to rail shippers and increased highway impacts were estimated to assess the economic impact. The airport analysis identified airports within North Dakota that are specially situated to participate in the current and future growth of the state's economy.

Transportation and Economic Development – This on-going study will identify: ways to improve the load-carrying limits of the state's highways and associated costs and benefits; enhancements that must be made to the state's highways to allow load limits to be raised to more efficiently move goods to market and associated costs and benefits; the phenomenon of the decline of freight service by rail, including the prospects for offering incentives to rail providers to expand the availability of rail for transportation of goods to market and the associated costs and benefits.

Rail Plan Update – UGPTI researchers helped update the North Dakota state rail plan to outline a shared vision for the N.D. rail system that incorporates input from the private sector and all levels of government. A major objective of this on-going project is to preserve rail branch lines, improve rail services and safety in North Dakota, and optimize investment of public funds in rail lines.

Grain Elevator Trip Estimation – Truck traffic to local grain elevators can have a significant impact on local roads. The ability to predict that truck traffic will help planners address traffic and safety concerns and road maintenance issues. UGPTI researchers studied a statewide grain movement database maintained by the UGPTI for the North Dakota public Service Commission to learn how grain moves to various elevators. They correlated that information to transportation and land-use data to develop a computer model to estimate the volume of truck trips generated by various-sized elevators. The work will be useful in road planning to evaluate the draw of trucks to elevators based on the elevator's characteristics. For example, large elevators that ship on shuttle trains draw more traffic than small elevators. That traffic also includes larger and heavier trucks.

Agriculture-Related Intermodal Transportation Research

Accessing International Container Markets – This project is to develop an overview of container service, and container service alternatives for the Northern Plains based on North Dakota scenario analysis. The research will present a baseline of information relevant to the container market, including traffic volumes, traffic flows, facility locations, service rates, and cycle times through a review of existing data and literature. Scenario analysis will then be developed to describe the rates, cycle times, and market factors associated with several container service alternatives. Proposed scenarios include co-load local terminal locations, dray to hub terminal with existing and alternative equipment configurations, short line railroad dray to hub terminal, box or hopper car to container transfer facility, new local "big-box" distribution center, and new local intermediary manufacturer.

Role of Intermodal Container Transportation in North Dakota – This report examines the role of transportation intermodal truck-rail container transportation in the state's expanding manufacturing and value-added agricultural base. It explores the general advantages of intermodal container transportation, examines factors that make intermodal container transportation successful, examines functions performed by successful intermodal facilities, evaluates characteristics of various locations that are de for an intermodal facility, estimates potential traffic ies and other characteristics of various North Dakota locations where such a facility might be located and explores funding options for an intermodal facility.

Fargo-Moorhead Feasibility – Researchers examined the feasibility of a logistics center including a container/trailer intermodal transportation facility in the Fargo-Moorhead area. The study provides the groundwork for decisions to be made by shippers, government officials and others regarding the next steps in pursuing enhanced transportation services for businesses in the study region. The Fargo/Moorhead Council of Governments (F/M COG), Fargo Cass County Economic Development Corporation, City of Moorhead, Minnesota Department of Transportation, North Dakota Department of Transportation, and a committee made up of interested parties from western Minnesota and eastern North Dakota initiated a feasibility study to evaluate enhancing intermodal transportation options.

N.D. Strategic Freight Analysis – Researchers explored the regulatory environment that shippers face in moving freight by truck throughout the region and highlighted differences in regulations that exist among the region's states and provinces. Truck size and weight regulations in the region's states and provinces are controlled and specified by state departments of transportation and provincial departments of highways, rural municipal councils, major urban transportation agencies, U.S. Department of Transportation, national parks, public works, tribal governments and other government agencies and services. Due to the inconsistencies in size and weight regulations, problems exist. This study provides a snap-shot of current regulations and conditions and provides the basis for discussing the inconsistencies that exist for truck size, weight, and permitting regulations in the region.

Cross Border Regional Truck Transportation Conference – The strategic freight analysis outlined above led to the development of this conference, held June 15-16, 2005, in Fargo. Transportation officials from seven U.S. states and three Canadian provinces attended. UGPTI staff organized the conference and presented two studies: The Western Uniformity Scenario and An Overview of State & Provincial Truck Regulations and Permitting Commonalities and Differences.

Additional Agriculture-Related Activity of UGPTI Staff

Grain Movement Database – monthly data inputting of approximately 400 reports, non-report management, and quarterly and annual reports related to the data.

UGPTI Grain Industry Presentations at the request of the N.D. Wheat Commission, U.S. Wheat Associates, American Soybean Association and the U.S. Grains Council.

• Bismarck	December 2006
• Mexico, Asia	July 2006
• China	June 2005
• US Grains	May 2005
• Ag Cooperative Managers	September 2004 (Fertilizer, Grain Industry Trends)
• American Soybean Association	September 2004
• Japan	August 2004
• China	March 2004

UGPTI organized and chaired a Rural Freight/Container Conference in September 2004. (Support from USDA USDOT)

UGPTI staff chaired the Agricultural Transportation Committee of the Transportation Research Board and developed/ organized these sessions at the TRB annual meeting in January, 2005:

- Impact of China on U.S. Grain Industry that included presentations by Grain Elevator and Processing Society (National Grain and Feed Association), BNSF Railway, University of Texas and U.S. Department of Transportation.
- Agricultural Truck Transportation Security Practices that included presentations by the American Trucking Association, USDA, and University of Texas.

Meetings – UGPTI staff attended the N.D. Wheat Commission county representatives meeting meeting, N.D. Durum Growers meeting, N.D. Grain Dealers Transportation Committee meeting, and other meetings for the agricultural transportation research program.

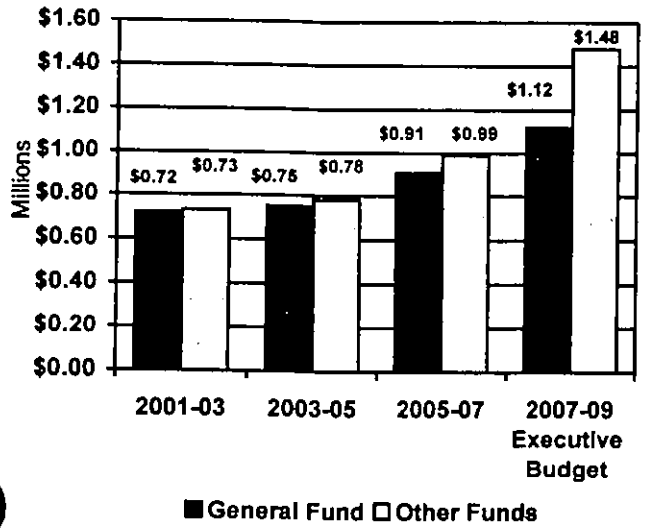
Contact Info:
Mark Berwick • mark.berwick@ndsu.edu • (701) 231-9594
Kimberly Vachal • kimberly.vachal@ndsu.edu • (701) 231-6425

Department 638 - Northern Crops Institute
House Bill No. 1020

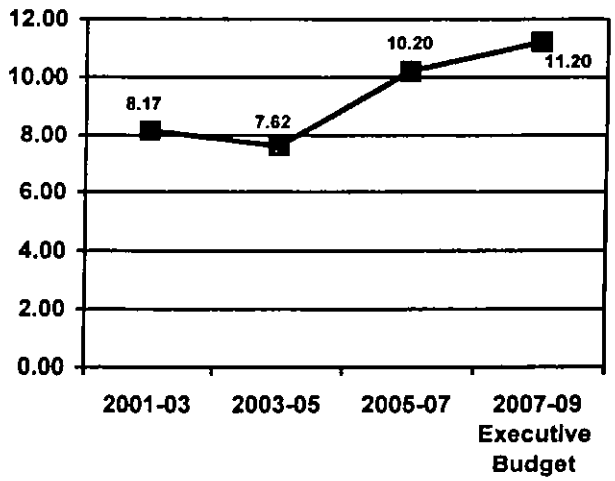
	FTE Positions	General Fund	Other Funds	Total
2007-09 Executive Budget	11.20	$1,118,392	$1,479,719	$2,598,111
2005-07 Legislative Appropriations	10.20 [1]	910,761	991,922	1,902,683
Increase (Decrease)	1.00	$207,631	$487,797	$695,428

[1]The 2005-07 appropriation was based on 8.62 FTE positions. Section 6 of Senate Bill No. 2020 (2005) authorizes the State Board of Higher Education to adjust FTE positions as needed. A total of 1.58 FTE positions were added pursuant to this section and reported to the Office of Management and Budget.

Agency Funding



FTE Positions



Executive Budget Highlights

	General Fund	Other Funds	Total
1. Provides special funds spending authority for a fine grinding system ($150,000), dryer system ($75,000), color sorter ($60,000), rapid visco analyzer ($50,000), rheofermentometer ($20,000), and a blast freezer ($10,000)		$365,000	$365,000
2. Adds funding for 1 FTE technical processing staff position to assist with processing laboratory analyses	$102,608		$102,608
3. Adds funding for operating expenses to provide staff training and development on new equipment, newer types of food and industrial processing, and analytical procedures	$38,346		$38,346

Other Sections in Bill

Section 4 of House Bill No. 1020 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 Northern Crops Institute is appropriated for the purposes designated in the act, grant, gift, or donation for the 2007-09 biennium.

Section 5 of House Bill No. 1020 authorizes the transfer of appropriation authority between the Main Research Center, the branch research centers, NDSU Extension Service, and Northern Crops Institute.

Section 6 of House Bill No. 1020 authorizes the State Board of Higher Education to adjust or increase full-time equivalent positions for the Northern Crops Institute and report any adjustments to the Office of Management and Budget.

Section 7 of Senate Bill No. 2020 authorizes the carryover of any unexpended general fund appropriation and excess income received by the Northern Crops Institute.

Continuing Appropriations

No continuing appropriations for this agency.

Major Related Legislation

At this time, no major legislation has been introduced affecting this agency.

Prepared by the North Dakota Legislative Council staff for Senate Appropriations
February 26, 2007

Department 638 - Northern Crops Institute
House Bill No. 1020

	FTE Positions	General Fund	Other Funds	Total
2007-09 Executive Budget	11.20	$1,118,392	$1,479,719	$2,598,111
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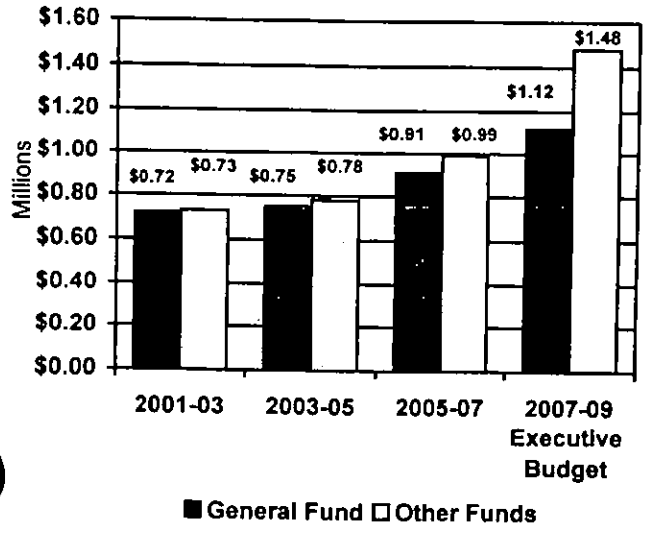
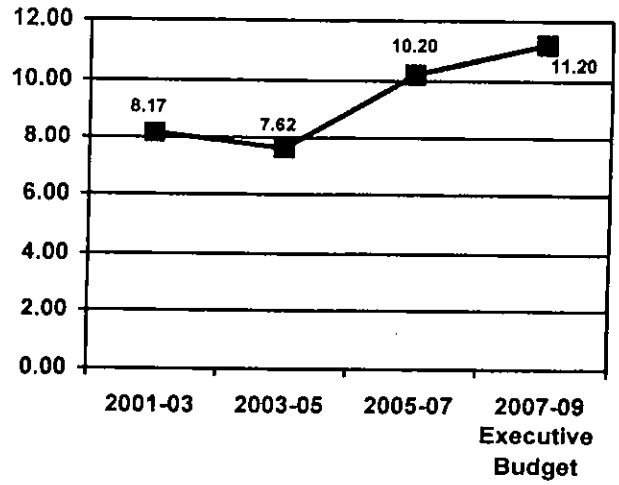
Agency Funding



FTE Positions



First House Action

Attached is a summary of first house changes.

Executive Budget Highlights

	General Fund	Other Funds	Total
1. Provides special funds spending authority for a fine grinding system ($150,000), dryer system ($75,000), color sorter ($60,000), rapid visco analyzer ($50,000), rheofermentometer ($20,000), and a blast freezer ($10,000)		$365,000	$365,000
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Section 5 of Engrossed House Bill No. 1020 authorizes the transfer of appropriation authority between the Main Research Center, the branch research centers, NDSU Extension Service, and Northern Crops Institute.

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Section 8 of Engrossed Senate Bill No. 2020 authorizes the carryover of any unexpended general fund appropriation and excess income received by the Northern Crops Institute.

Continuing Appropriations

No continuing appropriations for this agency.

Major Related Legislation

At this time, there is no major legislation affecting this agency.

ATTACH:1

Handout #15
HB 1020
January 15, 2007

Same testimony given to the House and Senate

Except for these pages

NCI Northern Crops Institute
BIENNIAL BUDGET

NORTH DAKOTA STATE UNIVERSITY

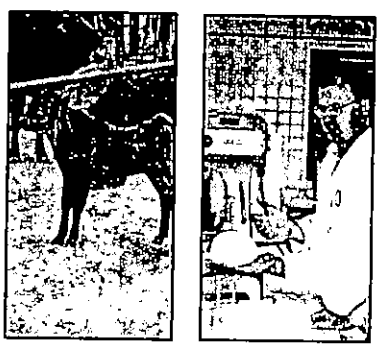
2007-2009

See Senate hearing 2-28-07 testimony

HOUSE APPROPRIATIONS COMMITTEE
EDUCATION & ENVIRONMENT DIVISION
Representative Francis J. Wald, Chairman

8:30 a.m.
Monday, January 15, 2007

HB 1020
Northern Crops Institute - Budget No. 638
Patricia Berglund, Director



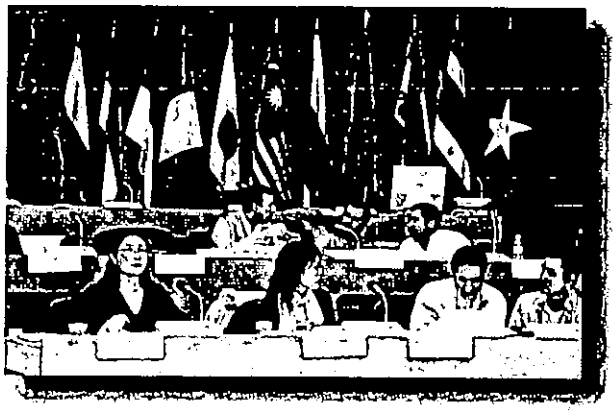
www.ndsu.edu/legislators

Northern Crops Institute

Leading the effort in North Dakota, Minnesota, Montana, and South Dakota to establish northern-grown U.S. crops as the world's choice for food, feed, and value-added applications.

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.

In North Dakota, agricultural exports account for over 30% of all goods and services. Maintaining and increasing the exports of agricultural commodities contributes to the health of North Dakota and regional economy. The staff and governing board of the Northern Crops Institute extends their sincere thanks for your past support.



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 our budget is very supportive of our work. It will allow us to continue to expand technical services that promote markets for the myriad of crops produced regionally and to keep our fees competitive for smaller companies from North Dakota and the region. I ask you to support the executive recommendation of the NCI budget. I have also attached a one-time deferred maintenance need per Legislative Council staff.

Thank you for your continued interest and ongoing support.

Respectfully submitted,
Patricia T. Berglund, Ph.D.
Director
Northern Crops Institute

www.northern-crops.com

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NORTHERN CROPS INSTITUTE

AGENCY STATUTORY AUTHORITY
North Dakota Century Code 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 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 service. Providing technical and marketing assistance through specialized training courses and technical services facilitates domestic and international market development and expanded sales of northern-grown crops. Representatives from more than 125 countries have visited NCI since its inception. NCI is located on the campus of North Dakota State University.

AGENCY MISSION STATEMENT
NCI 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 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 July 11, 2006, presentations and written documentation on accomplishments during Fiscal Year 2006 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 provides verbal and written status reports to the South Dakota Appropriations Committees annually. NCI also gives regular status reports on NCI accomplishments to other agencies that provide Special/Other funds.

NCI performance is based on the NCI Five-Year Strategic Plan (Plan), adopted in June 2004 by the Northern Crops Council, that affirmed NCI's mission and identified priorities for the future. The Plan is being used to help guide NCI's future focus, programs, partnerships, and resource management. A guiding principle was to integrate programs that better serve the broad variety of regional crops in 21st century agriculture while continuing to serve our region's more traditional crops. NCI staff have made excellent progress in implementing the actions identified by this Plan which focus on four areas: Recognized Leadership, Enhanced Programs, Effective Partnerships, and Leveraged Funding.

AGENCY FUTURE CRITICAL ISSUES
Since its inception 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.

NCI needs technical staff to provide support for its NCI Crop Quality Specialists. This will free up time to conduct processing and provide solutions to technical questions regarding quality of crops produced in North Dakota and the region. Operational resources are needed for staff training and travel to meetings and conferences to maintain up-to-date capabilities.

NCI programs, processing and analytical technologies must stay up-to-date to match technology of today and the future. Because much of NCI's equipment is 15-20 years old, it requires more repair and replacement of parts. High technology equipment is needed to maintain leading edge processing, testing capabilities, and delivery systems. New equipment for analyzing and processing oilseed and a wider range of diverse crops is being evaluated and purchased as Special/Other funds become available.

Ultimately, staff with up-to-date training and equipment with today's technology promote the broad diversity of regional crops. This contributes to expanded markets.

Executive Recommendations

General Fund

Reconciliation of 2005-07 Original General Fund Appropriation to 2007-09 Executive Recommendation

	NCI
2005-07 General Fund Appropriation	910,761
Cost to continue FY2007 salary increases	11,545
2007-09 Base General Fund Request-BARS	$ 922,306
Executive Recommendation Increases (Decreases):	
Compensation package (4% per year) and health insurance increases	57,740
Initiatives[1]	138,346
Total Increases (Decreases)	196,086
2007-09 Executive Recommendation - General Fund	**1,118,392**
Increase (Decrease) from 2005-07 Adjusted Appropriation	**207,631**

[1] Funded optional package request of $100,000 for technical processing staff position and $38,346 for staff development.

Other Funds

Reconciliation of 2005-07 Original Other Fund Appropriation to 2007-09 Executive Recommendation

	NCI
2005-07 Original Other Fund Appropriation	$ 991,922
Increases (decreases) included in budget request:	
Other changes in estimated income	442,655
2007-09 Budget Request	1,434,577
Executive Recommendation Increases (Decreases):	
Compensation package (4% per year) and health insurance increases	45,142
Total Increases (Decreases)	45,142
2007-09 Executive Recommendation - Other Funds	**$ 1,479,719**

One-Time Deferred Maintenance Need
Per Legislative Council

Increasing NCI Technical Capabilities by Renovating Existing Space $95,000

This request is to renovate space in the existing NCI durum mill room. Two levels will be added to house additional equipment for value-added processing of pulses and oilseeds. The new levels will connect to the existing durum mill observation room for increased space utilization, and with the garage for easy access of new equipment and ingredients. The existing pilot-scale durum mill will remain intact.

Northern Crops Institute
Connecting in the Global Marketplace

www.northern-crops.com
701-231-7736

January 16, 2007
HB 1020
Handout #17

Same testimony given to Senate

Testimony for Northern Crops Institute
North Dakota House Appropriations Committee
Education and Environment Committee
January 15, 2007
by
Dan Wiltse, Northern Crops Council

Good Afternoon, Chairman Wald and committee members:

My name is Dan Wiltse. I serve on the Northern Crops Council, the governing board of the Northern Crops Institute, representing the North Dakota Oilseed Council. The NDOC is one of the most recent commodity organizations to provide funding for NCI. That is because of the new position you funded in the last legislative session. The NDOC is receiving needed services through this position that contribute to promotion, information, and educational programs of oilseeds.

I wish to provide my support for the work that NCI conducts. All of NCI programs focus on QUALITY and end-uses of our crops. NCI's level of excellence must always be the industry standard and, like any world-class athlete, we must always keep moving the bar higher.

NCI continues to promote the quality and attributes of our northern crops, provides processing technology to end-users, and teaches how to purchase crops through the complicated U.S. system. Of great importance is the development of excellent relationships with international and domestic buyers over its 25 year history. These relationships are must in conducting business and repeated participation in our programs is a great testimony of NCI's importance to our region.

If we are to remain competitive in the global marketplace, we must support programming at the NCI, our only regional organization that focuses on quality, technology and purchasing. I ask you to support the Executive Recommendation for the NCI budget and to consider their one-time deferred maintenance request which will allow expansion of technical services. The position, staff development and increased space will contribute to better serving ND's crop diversity for the 21st century. Remember, ND's lead continues to leverage funding from other participating states for programming and development.

NCI continues to maintain its World Class Image because of its dedicated staff and your continued support. If any of you could have the opportunity to attend a Participant Recognition dinner, you, as I, would be very proud of what we have created.

Please support the budget request before you.

Thank you.

January 15, 2002
HB1020
Handout # 15a

NORTHERN CROPS INSTITUTE

An international center for meeting and learning about northern grown crops of the United States

January 16, 2007

Honorable Francis Wald
State Representative
600 E. Boulevard Ave.
Bismarck, ND 58505

Dear Representative Wald:

Enclosed are several copies of the sources of Other Income for NCI during this biennium. Most of the commodity and other state funds are received toward the beginning of the fiscal year, so I do not anticipate much change in those funds. However, miscellaneous income will increase because of course fees and technical services.

I am happy to answer any questions you may have. I suggest you call my cell phone at 701-799-2518; email me at pat.berglund@ndsu.edu or call the NCI office at 701-231-7736.

Thank you for your continued and future support. I appreciate your questions and interest at yesterday's Appropriations Committee hearing.

Most sincerely,

Pat Berglund

Patricia T. Berglund, Ph.D.
Director

Cc: Tammy Dolan

Bolley Drive - North Dakota State University • Fargo, ND 58105-5183 USA
(701) 231-7736 • FAX (701) 231-7235 • nci@ndsuext.nodak.edu • www.northern-crops.com

NORTHERN CROPS INSTITUTE Regional Funding
NCI budget comprised of a mix of funds from the four-state region.

	FY '06	*FY '07	Biennium Subtotals:	Biennium	Projection
ND General Fund	**447,436**	**463,325**		**910,761**	**910,761**
Other State Revenue					
MN General Fund	50,000	50,000	100,000		
SD General Fund	50,000	50,000	100,000		
	100,000	100,000	200,000		
Commodity Check-off Contributions					
MN Soybean Council	22,855	19,641	42,496		
MN Wheat Research & Promotion Council	1,500	1,500	3,000		
MT Wheat & Barley Committee	40,000	60,000	100,000		
ND Barley Council		7,375	7,375		
ND Corn Utilization Council		5,000	5,000		
ND Dry Pea & Lentil	10,000	10,000	20,000		
ND Oilseed Council	12,000	12,000	24,000		
ND Soybean Council		24,500	24,500		
ND Wheat Commission	30,000	40,000	70,000		
Northarvest Bean Growers	1,500	1,500	3,000		
Northarvest Bean Growers (Special Projects)		39,088	39,088		
SD Wheat Commission	25,000	25,000	50,000		
	142,855	245,604	388,459		
Total Other State and Commodity Contributions				588,459	
Miscellaneous Income (Processing and Course Income)	188,831	178,276		367,107	
Total Other Income				**955,566**	**991,922**
Total Revenues (ND and Other Revenue)				**1,866,327**	**1,902,683**

***7/1/2006 – 1/15/2007**

3

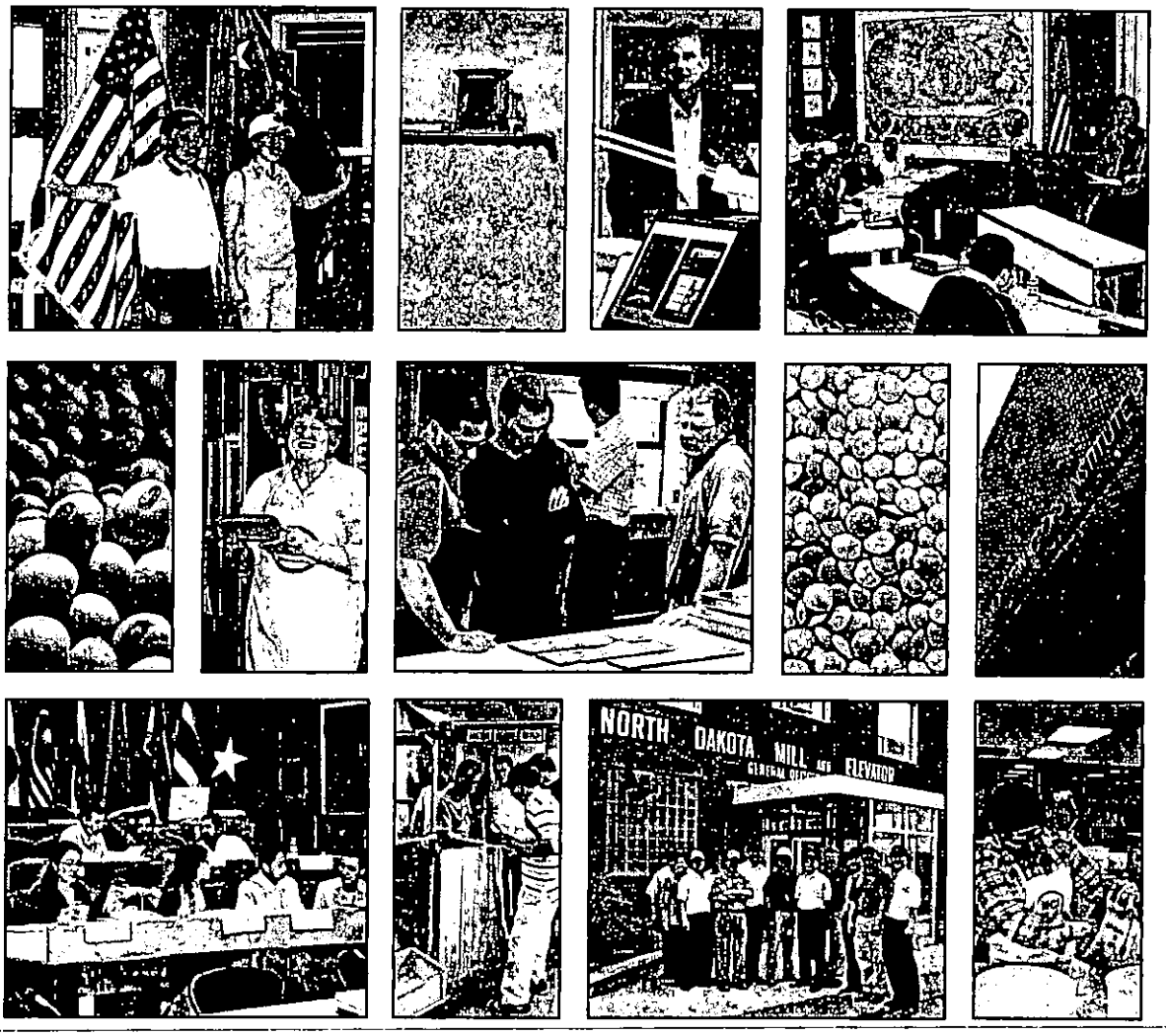
HB 1020

NCI Northern Crops Institute

BIENNIAL BUDGET

NORTH DAKOTA STATE UNIVERSITY

2007-2009



SENATE APPROPRIATIONS COMMITTEE
Senator Ray Holmberg, Chairman

Wednesday, February 28, 2007

HB 1020
Northern Crops Institute - Budget No. 638
Patricia Berglund, Director

www.ndsu.edu/legislators

Northern Crops Institute

Leading the effort in North Dakota, Minnesota, Montana, and South Dakota to establish northern-grown U.S. crops as the world's choice for food, feed, and value-added applications.

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.

In North Dakota, agricultural exports account for over 30% of all goods and services. Maintaining and increasing the exports of agricultural commodities contributes to the health of North Dakota and regional economy. The staff and governing board of the Northern Crops Institute extends their sincere thanks for your past support.

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 able to continue the level of work documented here. The budget in the Engrossed HB 1020 is very supportive of our work. It will allow us to continue expanding technical services that promote markets for the myriad of crops produced regionally and to keep our fees competitive for smaller companies from North Dakota and the region. I ask you to support the budget recommendations included in the Engrossed HB 1020 which includes $75,000 for one-time extraordinary repairs to renovate NCI space and expand NCI processing capabilities.

Thank you for your continued interest and ongoing support.

Respectfully submitted,
Patricia T. Berglund, Ph.D.
Director
Northern Crops Institute

www.northern-crops.com

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Impact

The Northern Crops Institute (NCI) does not buy or sell crops – we make it easier for everyone else to do so.

- Programs focus on issues that assist in developing and maintaining markets for agricultural producers in N.D. and the region.
- Technical information on crop utilization is presented by means of educational programs, technical processing and consulting, and special services.

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.

NCI is the prime source of educational and technical programs for northern-grown crops. Demand continues to Increase for its programs and services. Such demand is also a reflection of the success of its activities to date and the credibility of the information provided through its programs.

State Impact

Agriculture makes up 25% of the ND economic base. NCI affects markets for wheat, soybeans, feed grains, pulses and oilseeds and their products through promotional efforts in educational and technical programs with international and U.S. buyers. These crops account for about 1.5 billion dollars in ND agricultural exports (ND Department of Agriculture 2006). Additionally, NCI contributes to the increased use of ND and regional crops through our processing and product development efforts with ND, regional and multi-national food and feed processors. These programs focus on increased and more effective use of ND crops for value-added purposes.

Regional Impact

NCI makes an economic impact throughout the region as NCI represents North Dakota (ND), Minnesota (MN), South Dakota (SD) and Montana (MT). NCI conducts programs that focus on developing markets for many of these export crops in addition to domestic use. One in five jobs in each of these four states is in the agricultural sector. The total contribution of agricultural exports in 2005 was $1.5 billion in ND, $1.2 billion in SD, $2.4 billion in MN, and $420 million in MT (Department of Agriculture websites for these states). NCI acknowledges that credit for agricultural exports is due to the work of many entities in addition to NCI.

Investment in Critical Areas: Developing Markets for Diverse Crops

With the increased funding that the Legislature provided in 2005, Northern Crops Institute was able to cover cost-to-continue and hire a Crop Quality Specialist. The $120,000 general funding was leveraged with funds from the ND Oilseed Council and ND Dry Pea and Lentil Council to hire a full-time Crop Quality Specialist (Pulse and Oilseed Specialist). Because of this new position, NCI has broadened the scope of our expertise by promoting quality attributes and processing characteristics of the broad array of regional crops, including dry pea, lentil, oilseeds, soybeans, and dry edible beans. These market development activities include short-term investigative studies, educational programs, and work with related commodity check-off organizations.

Major Accomplishments

Advancing Regional Markets

- Northern Crops Institute works to advance market development and global awareness of North Dakota and four-state regional crop quality and availability through education, technical services and consulting throughout the world.

NCI Success Stories from 2005 & 2006

87 Crop Buyers from 28 Nations attend 2005 & 2006 Grain Procurement Courses

Eighty-seven participants from 28 countries were educated in strategies for grain procurement and risk management at NCI in 2005 and 2006. NCI Director Patricia Berglund says, "Each participant in these courses is an influential buyer in his or her own country. In today's competitive world, crop buyers need to learn how to improve their risk management so that they can increase their profits. Profitable companies continue to make purchases based on quality needs, not just lowest price. Through these courses, our participants become more familiar with our region and crops. Some already purchase and have expressed increased interest in purchasing crops that we grow...wheat, corn, soybeans, and other crops."

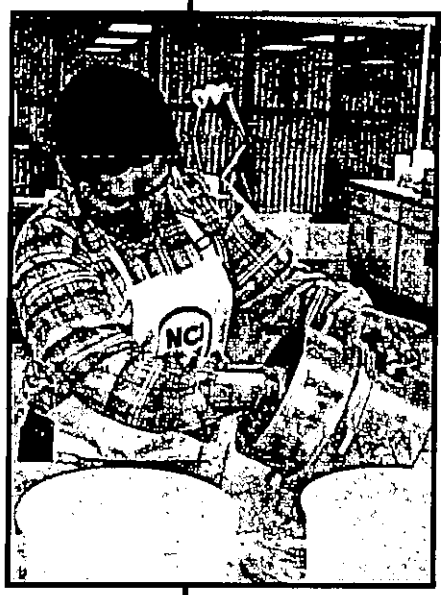
Education

- People from 53 countries participated in NCI short courses and trade teams in 2005 and 2006. Course details, participants, and countries are listed in the 2005 and 2006 Annual Update. The complete list of countries ranges from A – Z and can be found on p. 8 of this testimony handout. In 2007, new courses addressing a diversity of crops and related topics are being offered because of NCI's expanded expertise.

- Two "Grain Procurement Management for Importers" and three "Advanced Grain Procurement Strategies" courses were taught in 2005 and 2006 to a total of 87 international buyers of northern-grown crops. Participants in these courses are decision-makers regarding purchases of grains/crops for their companies and countries. Knowledge of the U.S. grain purchasing system is absolutely necessary for international buyers. The U.S. system is far more complicated than some of our competitors who have single-desk systems. In addition to the traditional courses covering all commodities, NCI provided customized grain procurement courses in soybeans, wheat and corn for regional companies and international buyers.

● Offering courses at NCI remains the best means of connecting potential customers to our state and region. International business depends on personal relationships. The hospitality of 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 pursue additional overseas courses in "Price Analysis and Risk Management Strategies" as we have in the past.



2006 NCI Success Story

NCI Technical Staff Builds Expertise in Pulse and Oilseeds

NCI's technical staff are expanding their expertise in oilseeds and pulses to assist companies with their processing needs. One project is an extruded bean snack that uses navy bean flour, pinto bean flour, and corn flour to make extruded puffed snacks. "The purpose of the project is to develop a product that contains a healthful daily intake of ALA in one serving. ALA is a polyunsaturated omega-3 fatty acid related to a lower risk of cardiovascular disease," says NCI Pulse and Oilseed Specialist Mehmet Tulbek.

Trials have been run on a traditional Middle Eastern bean paste product made from navy bean flour, pinto bean flour, and black bean flour. "The object of this project is to use bean flour in combination with HRS flour, flaxseed oil, and ground flaxseed, to make a functional food product with a daily ALA intake level of 1,000 to 1,700 mg. Much of our flax research examines the effects of flaxseed on HRS wheat flour quality. All these efforts are complementary to next year's flaxseed short course," says Tulbek.

Technical Services

● 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 2005 and 2006, NCI conducted a record number of processing and baking investigations, and analytical testing projects for food and feed companies, universities and others. These technical services focused on increasing the use of value of barley, barley malt sprouts, beet pulp, canola, chickpeas, corn, DDGS, dry edible beans, field peas, flax, lentil, oats, sorghum, soy hulls, soybeans, soybean meal, sunflowers, wheat midds, hard red spring, hard red winter, hard white, and durum wheat.

● NCI's Feed Production Center offers educational programs and produces complete feeds, concentrates, supplements and custom premixes, which are used in animal research. Since becoming operational in 1991, the NCI feed production center has provided in excess of 28,000 tons of feed. Average yearly feed production is 2,000-2,500 tons, mostly for NDSU Experiment Station and Research and Extension Centers with some experimental work for regional companies.

Partnerships and Leadership

- The region's commodity check-off groups and their producer members continue to be major partners and supporters of Northern Crops Institute. NCI courses identify new market opportunities for regional producers.

- NCI continues to offer courses in partnership with U.S. Wheat Associates, American Soybean Association and U.S. Soybean Export Council, U.S. Grains Council, American Society for Brewing Chemists, American Feed Industry Association, Association of Operative Millers, American Association of Cereal Chemists, Association of Oil Chemists Society, USDA/FAS Cochran Program, NDSU Extension Service and others. These groups assist in identifying possible participants and often provide other resources.

- NCI provides leadership in North Dakota and the nation, and in return, receives collaborative assistance from many, many companies, organizations and individuals. Without these partnerships, NCI could not do its work. This year's cooperators are listed on page 5 of the 2006 Annual Update. In addition, NCI staff provides regular assistance to our partners. For example, in November, NCI's Technical Director traveled throughout Asia with U.S. Wheat Associates to report on the 2006 crop quality to our Asian buyers. In December, he promoted this year's durum crop in North Africa. NCI staff provide lectures and demonstrations for NDSU, SDSU and other regional universities on technical, scientific, and practical applications of the use of crops in food processing applications.

2006 NCI Success Story

SE Asian Team and NCI Technical Staff Execute Blending and Baking Study

A technical team from Thailand and Malaysia came to NCI to evaluate flour made from U.S., Canadian and Australian wheat. The team spent a week working with NCI's technical staff, running 24 sets of baking experiments, producing over 1,088 loaves of bread from a variety of blending combinations. "The group's visit offered them actual hands-on experience in testing the performance of high protein wheat, particularly HRS and HRW wheat grown in our region, to enhance the performance of lower quality wheat," noted NCI Director Pat Berglund. "Cost is always a determining factor to millers. We wanted to demonstrate that you can blend in small amounts of spring wheat to enhance the quality of local wheat. NCI is fortunate to work with N.D. Wheat Commission and U.S. Wheat Associates to identify customers for our region's high quality wheat."

- Many strategies have been implemented to address the four major focus areas identified in strategic planning: Recognized Leadership, Enhanced Programs, Effective Partnerships, and Leveraged Support.

- 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, from the four-state agricultural supply and processing industry and grain trade, provide regional support, advice, lecturers, tours, and resources for NCI programs and initiatives.

2006 NCI Success Story

Interest In Higher Quality Pasta Brings International Pasta Manufacturers to NCI

Interest in producing higher quality Italian-style pasta brought nine international pasta manufacturers from Brazil, Costa Rica, Peru, Spain and Venezuela to NCI for a week-long course. "For our durum producers, this course represents a marketing opportunity," says Dr. Patricia Berglund, NCI Director. "Producing higher quality, more Italian-style pasta requires durum wheat or at least a blend of high protein wheats. Many countries manufacture pasta, but it is made with softer or lower quality wheat. For example, Brazil uses only 3% durum in their entire pasta industry. There is a lot of opportunity for growth in the sale of U.S. durum and hard red spring wheat," she concludes.

Promotion of Regional Agriculture and Northern-Grown Crops

In 2005 and 2006, NCI staff taught short course participants, hosted trade teams and visitors, and consulted with companies from 53 countries:

Algeria	Ghana	Libya	Peru	Swaziland
Australia	Guatemala	Malawi	Philippines	Taiwan
Brazil	Haiti	Malaysia	Poland	Thailand
Canada	Honduras	Malta	Portugal	Tunisia
Chile	Hong Kong	Mexico	Puerto Rico	Turkey
China	India	Morocco	Rwanda	United Kingdom
Colombia	Indonesia	Netherlands	Senegal	USA
Costa Rica	Israel	Nigeria	Singapore	Venezuela
Ecuador	Italy	Norway	South Africa	Vietnam
El Salvador	Japan	Oman	South Korea	
Germany	Kenya	Panama	Spain	

2006 NCI Success Story

Safe Food is Ultimate Concern at Feed Safety Course

Twenty-eight participants from Mexico, Taiwan and United States came to NCI to learn more about manufacturing safe animal feed. The American Feed Industry Association (AFIA) and NCI co-sponsored the course. U.S. Grains Council (USGC) sponsored a Mexican delegation of ten people. "The general populace has become much more concerned about food safety issues in recent years," according to Dr. Kim Koch, manager of NCI's Feed Production Center and coordinator of the course. "Under current U.S. law, the feed industry is required to be able to trace their product one-step forward and one-step back, which means they need to know where it came from and who they passed it on to. The feed industry is a service industry. We are not only feeding animals, but ultimately we are feeding people."

NCI Initiative

Grow 21: Enhancing North Dakota Economy by Growing Markets for Diverse North Dakota Crops

Total: $138,346

Background:

Competition for world market share of agricultural commodities is increasingly challenging. Our neighbors to the north continue to pour enormous resources into market development efforts, expanding their facilities and processing capabilities, and offering new educational opportunities. The number and value of crops produced in North Dakota has increased four-fold during the past twenty-three years (NCI's history). North Dakota now ranks first in production of 14 crops (North Dakota Agriculture 2006, ND Agricultural Statistics and NDDA).

In an increasingly competitive climate for world market share of agricultural commodities, NCI must keep current to meet the needs of international and U.S. grain buyers and processors. The 2005 ND Legislature provided funding for three-quarters of a specialist position for Pulse and Oilseed Quality promotion with the remainder of funding provided by North Dakota Dry Pea and Lentil Council and the North Dakota Oilseed Council. The new Pulse and Oilseed Quality Specialist is making excellent strides to serve the current diverse crop production in North Dakota in areas of market development. Additionally, NCI continues its strong focus on traditional crops such as cereal grains.

Request:

Technical Processing Staff Position — $100,000

NCI requests one technical staff position in the optional 2007-2009 budget to assist the two crop quality specialists by providing assistance with processing and laboratory analyses to develop new products and ultimately increase market potential. NCI technical processing is a growth area that provides assistance to small and large, state, regional and multi-national companies to develop new products for the marketplace.

This new position could free up time so that professional technical staff can work with producers and processors in crop quality aspects and educational programs. If professional technical staff had time, they could also work with ND and regional entrepreneurs in assessing the value of new products ideas.

Developing Staff for Enhanced Technical Service — $38,346

The remaining portion of this Optional Budget Request is for staff development/training on new equipment, newer types of food and industrial processing, and analytical procedures. New processing equipment and analytical instrumentation is being purchased to maintain leading edge processing, testing capabilities, and delivery systems. As technology in industry change rapidly, staff must be trained. These funds will be used for registration and travel to training programs, and to bring in experts to work with staff at NCI.

One-Time Deferred Maintenance Need
Per Legislative Council

Increasing NCI Technical Capabilities by Renovating Existing Space

Requested: $95,000
Engrossed HB1020: $75,000

This request is to renovate space in the existing NCI durum mill room. Two levels will be added to house additional equipment for value-added processing of pulses and oilseeds. The new levels will connect to the existing durum mill observation room for increased space utilization, and with the garage for easy access of new equipment and ingredients. The existing pilot-scale durum mill will remain intact.

Budget Detail

House Bill No. 1020
Northern Crops Institute -- Detail of House Amendments to HB 1020

	Executive Budget	House Changes	House Version
Northern Crops Institute	$2,598,111	$75,000	$2,673,111
Total of all funds	$2,598,111	$75,000	$2,673,111
Less estimated income	1,479,719	———	1,479,719
General fund	$1,118,392	$75,000	$1,193,392
FTE	11.20	0.00	11.20

House Bill No. 1020
Dept. 638 - Northern Crops Institute - Detail of House Changes General Fund

	Adds Funding For One-Time Extraordinary Repairs	Total House Changes
Northern Crops Institute	$75,000	$75,000
Total of all funds	$75,000	$75,000
Less estimated income	———	———
General fund	$75,000	$75,000
FTE	0.00	0.00

[1]Adds $75,000 from the general fund for extraordinary repairs relating to a one-time renovation project at the Northern Crops Institute.

Comparison of Budget Request to Executive Recommendation and Engrossed HB1020

General Fund

	NCI
2005-07 General Fund Appropriation	910,761
Cost to continue FY2007 salary increases	11,545
2007-09 Base General Fund Request	$ 922,306
Executive Recommendation Increases (Decreases):	
Compensation package (4% per year) and health insurance increases	57,740
Initiatives[1]	138,346
Total Increases - Executive Recommendation	196,086
2007-09 per General Fund Executive Recommendation	**1,118,392**
House Amendment:	
One-time Funding:	
Adds funds for extraordinary repairs related to renovation project at NCI	75,000
General Fund per Engrossed HB1020	**$ 1,193,392**

[1] Funded optional package request of $100,000 for technical processing staff position and $38,346 for staff development.

Other Funds

	NCI
2007-09 Budget Request - Other Funds	1,434,577
Executive Recommendation Increases (Decreases):	
Compensation package (4% per year) and health insurance increases	45,142
Total Increases (Decreases) - Exec Recommend	45,142
Other Funds per Executive Recommendation	**$ 1,479,719**
Other Funds per Engrossed HB1020	**$ 1,479,719**

OTHER HOUSE AMENDMENTS:
Identifies the following as "one-time" funding and requires a report to the appropriations committees of the 2009 legislative assembly on the use of the funds: Extraordinary repairs - NCI = $75,000.

5

SK FOOD INTERNATIONAL

HB1020

February 28, 2007

Testimony to Senate Appropriations

Dear Senators:

Please allow me to introduce myself. I am Jennifer Tesch, Sales/Marketing Director at SK Food International Inc. in Fargo, North Dakota, elected member of the Northern Crops Council in a processor position and current Chair of the Northern Crops Council.

It is with pleasure and passion that I write this letter asking for the continued support from the North Dakota Legislature for Northern Crops Institute.

As a 6-year council member with Northern Crops Institute, I have seen the progressive growth and innovation within NCI in many areas including the promotion of new specialty crops such as flax, peas, lentils, as well as niche markets including Identity Preserved and organic, expanded technical and education programs and the development of new products through expanded processing capabilities. All of these factors share the common theme of value-added: bringing more value for the crops we produce.

As a processor, SK Food has been able to experience first-hand some of the technical and educational services that NCI provides to the industry. Whether it as been participation in an educational course that further enhances our staff's knowledge of value-added agriculture or onsite/offsite processing with NCI technical staff that allows us to develop and enhance quality of our food products and/or ingredients, NCI has and continues to play an instrumental role in the region's reputation as a top producer/supplier of quality crops/products.

The support of the North Dakota Legislature has allowed the growth within NCI to take place; thank you for this past support. For NCI to continue to be seen and recognized as a leader in the global marketplace I again ask for your continued support.

Sincerely,

Jennifer Tesch
Chair, NCC Council
Sales/Marketing Director, SK Food International

4749 AMBER VALLEY PARKWAY, SUITE 1, FARGO, NORTH DAKOTA 58104 USA

PHONE: 701.356.4106 WEBSITE: WWW.SKFOOD.COM FAX: 701.356.4102

HB1020

NORTHERN CROPS INSTITUTE Regional Funding

NCI budget comprised of a mix of funds from the four-state region.

	FY '06	*FY '07	Biennium Subtotals:	Biennium	Projection
ND General Fund	**447,436**	**463,325**		**910,761**	**910,761**
Other State Revenue					
MN General Fund	50,000	50,000	100,000		
SD General Fund	50,000	50,000	100,000		
	100,000	100,000	200,000		
Commodity Check-off Contributions					
MN Soybean Council	22,855	19,641	42,496		
MN Wheat Research & Promotion Council	1,500	1,500	3,000		
MT Wheat & Barley Committee	40,000	60,000	100,000		
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ND Oilseed Council	12,000	12,000	24,000		
ND Soybean Council		24,500	24,500		
ND Wheat Commission	30,000	40,000	70,000		
Northarvest Bean Growers	1,500	1,500	3,000		
Northarvest Bean Growers (Special Projects)		39,088	39,088		
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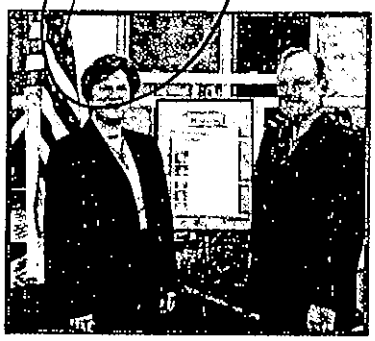
Total Other State and Commodity Contributions				588,459	
Miscellaneous Income (Processing and Course Income)	188,831	186,367		375,198	
Total Other Income				**963,657**	**991,922**
Total Revenues (ND and Other Revenue)				**1,874,418**	**1,902,683**

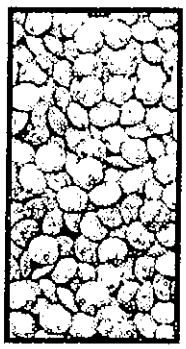
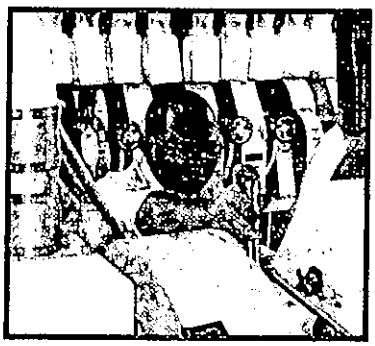
***7/1/2006 – 2/26/2007**

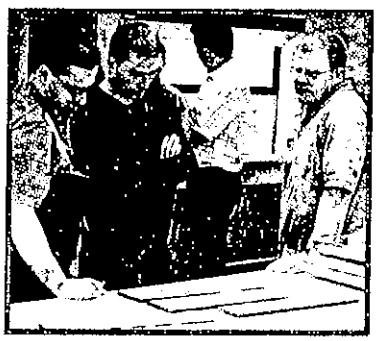
Northern Crops Institute
Annual Update

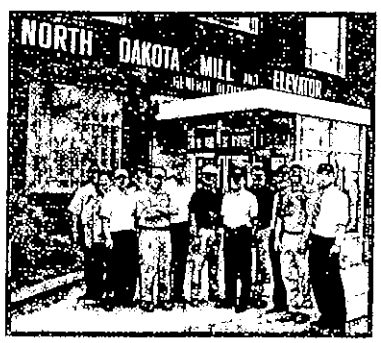
2006

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

Happy 25th Anniversary to NCI!

The Northern Crops Institute was established 25 years ago by the North Dakota Legislature. Since it took two more years to build and equip the facility, NCI's first short courses and technical services were offered in 1983.

Director's Corner

Patricia Berglund, Ph.D.
Director, Northern Crops Institute

"Connecting in the Global Marketplace" – Have you noticed this slogan on NCI materials? More than a slogan, it is a guiding principle for our work at the NCI. We continue to make progress on our strategic plan, striving to be a recognized leader in this global marketplace.

Berglund

NCI enhanced programs focus on adding value to crops produced in Minnesota, Montana, North and South Dakota. Two examples --- seminars that identify niche markets for specialty use soybeans and the power of blending Hard Red Spring wheat with other wheat for better baking performance. Please look through the Annual Update for many more examples. Our 2007 courses focus on a broad variety of northern-grown crops.

Effective partnerships assist in expanding staff to better serve the myriad of regional non-cereal crops. For example, the North Dakota Legislature and several commodity organizations provided funding for a Pulse and Oilseed Quality Specialist. As a result, NCI now provides service to all major crops produced in our four-state region.

In the past few years, under Brian Sorenson's leadership, NCI processing and technical services have greatly increased. NCI conducts analytical work and short-term investigations, and processes our producers' crops into higher value end-products for regional, national and multi-national companies. Because most of the work is proprietary, you do not read much about our work for many recognizable companies. What is important is that these services increase the use and value of our regional crops.

As I look to the future, I believe that NCI has a major opportunity for growth in its technical services. With that in mind, we are evaluating new equipment, space, and funding opportunities for expanding our technical services. By focusing on our mission and growing our core strengths, NCI will continue its success in adding value to regional agriculture. I invite you to join us in this challenging endeavor of connecting in the global marketplace.

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Notes from the NCC Chair

Jennifer Tesch
SK Food International, Fargo, North Dakota

Whether we are a producer, processor, exporter, importer or a manufacturer, we are all connected in the global marketplace...we are a part of the ever changing face of agriculture...we embrace challenges in the ag industry and work to turn those challenges into opportunities that lead to growth and innovation.

Tesch

These areas of ag industry growth and innovation in our region can be seen in the production of specialty crops such as flax, pea and lentil, the development of niche markets including Identity Preserved and Organic, the development of new products through expanded processing capabilities and the use of crops in non-traditional areas including biodiesel. The common theme in this growth and innovation is value-added, bringing more value for the crops we produce.

Through my domestic and international business experience and travels, it has been a privilege to receive many compliments from the domestic and export community that this region is recognized as a top producer in terms of quality and reliability for traditional and specialty crops.

NCI plays an instrumental role for this area's recognition as a top producer through its enhanced technical and educational programs, onsite technical and processing capabilities as well as the effective partnerships that allow the promotion of our regional production. All are a part of NCI's strategic plan that allows us to be seen as a leader in this global marketplace.

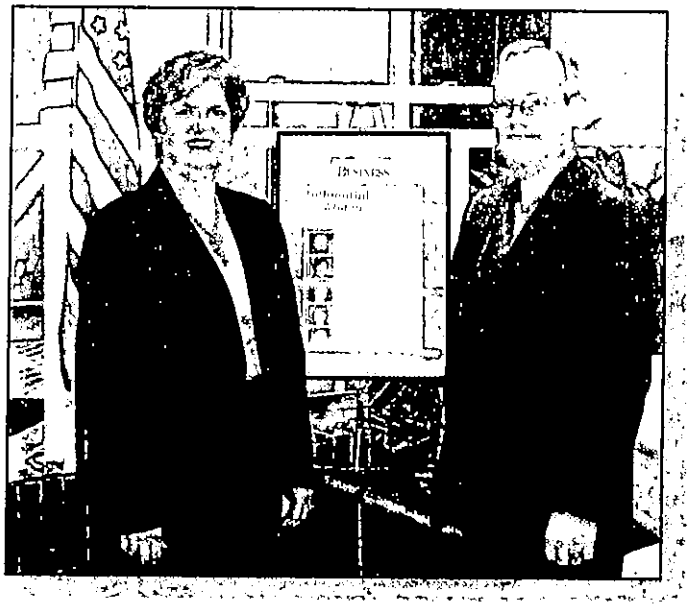
As we look at the past, current, and future success of NCI and our region as a top producer, I think of an anonymous quote that has relevance... "If you want to be successful, it is just this simple: Know what you are doing. Love what you are doing. And believe in what you are doing."

Through this shared commitment and passion for agriculture with the region's producers, the Northern Crops Council, the Industrial Advisory Board and the NCI staff look forward to continued growth and innovation through the promotion of our region's value-added agriculture and welcome the challenges that will come.

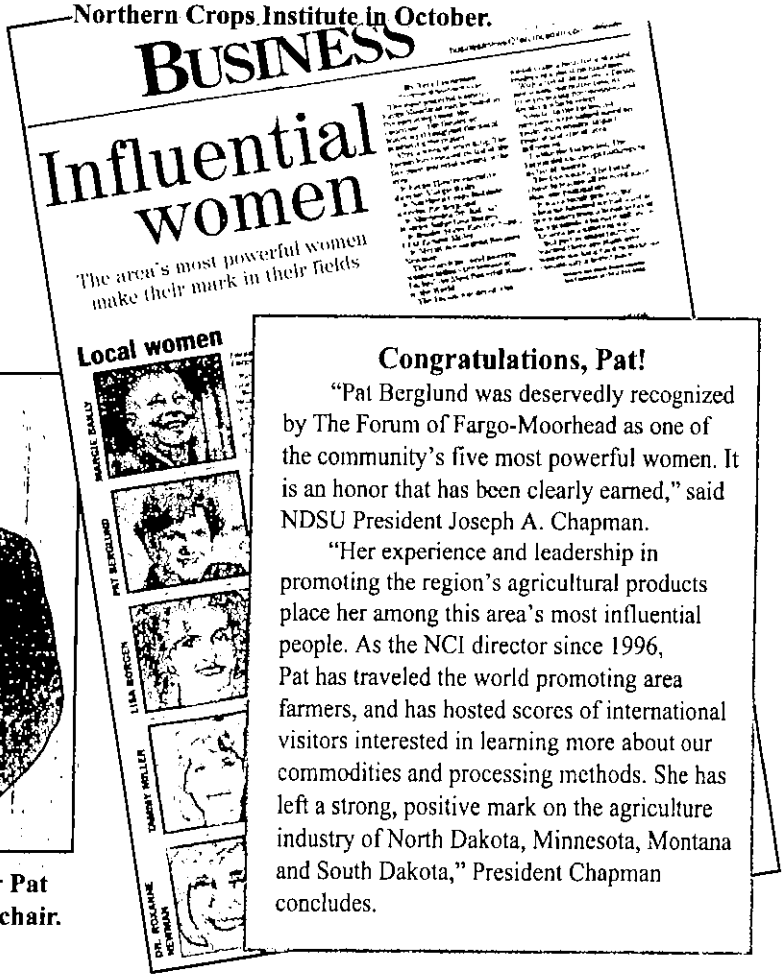
NCI's Sympathies to the family and friends of Homer Martinson, a former member of the Northern Crops Council, who died on July 11, 2006, in Fargo. He farmed near DeLamere, N.D., with his wife, Luella, until their retirement in 1988. Homer served two three-year terms on the NCC, representing the N.D. Soybean Council. He was honored with the NDSU Outstanding Agriculturist for Sargent County Award in 1991. Homer was 82 years old. He is survived by six sons, three daughters, thirty grandchildren, and six great-grandchildren.

2006-2007 Northern Crops Council

- **Jennifer Tesch, Fargo, N.D., Chair**
SK Food International
- **Mark Askegaard, Moorhead, Minn.**
Minnesota Soybean Growers Association
- **Jim Burbidge, Mohall, N.D.**
North Dakota Wheat Commission
- **Dr. Joseph Chapman, Fargo, N.D.**
President, North Dakota State University
- **Ellsworth Danielson, Fosston, Minn.**
Minnesota Wheat Research and Promotion Council
- **Richard Groven, Northwood, N.D.**
North Dakota Barley Council
- **Roger Johnson, Bismarck, N.D.**
North Dakota Commissioner of Agriculture
- **Brian Kaae, Dagmar, Mont.**
Montana Wheat and Barley Committee
- **Laird Larson, Clark, S.D., Vice Chair**
South Dakota Wheat Commission
- **Ed Loraas, Fairdale, N.D.**
U.S. Durum Growers Association
- **Claude Richard, Fargo, N.D.**
North Dakota Soybean Council
- **Vance Taylor, Grand Forks, N.D.**
North Dakota State Mill
- **Dan Wiltse, Lisbon, N.D.**
North Dakota Oilseed Council
- **Matt Mechtel, Page, N.D., Past Chair**



NDSU Vice President of Agriculture D.C. Coston (right) presents Dr. Pat Berglund (left) with a framed copy of the Forum newspaper story that named Berglund one of the top five influential women in the Fargo-Moorhead area. Dr. Coston made the presentation at a reception he hosted at Northern Crops Institute in October.



BUSINESS

Influential women

The area's most powerful women make their mark in their fields

Local women

Congratulations, Pat!

"Pat Berglund was deservedly recognized by The Forum of Fargo-Moorhead as one of the community's five most powerful women. It is an honor that has been clearly earned," said NDSU President Joseph A. Chapman.

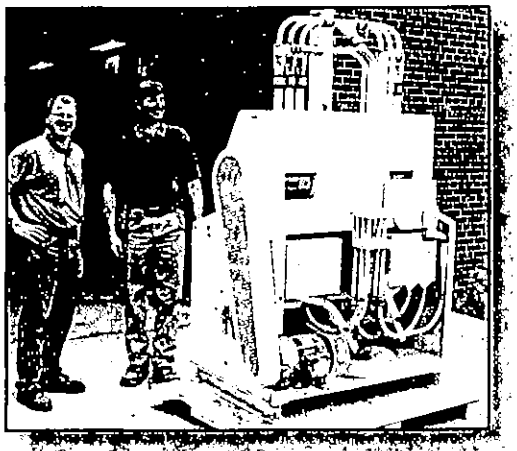
"Her experience and leadership in promoting the region's agricultural products place her among this area's most influential people. As the NCI director since 1996, Pat has traveled the world promoting area farmers, and has hosted scores of international visitors interested in learning more about our commodities and processing methods. She has left a strong, positive mark on the agriculture industry of North Dakota, Minnesota, Montana and South Dakota," President Chapman concludes.

Matt Mechtel receives a plaque from NCI Director Pat Berglund to commemorate his leadership as NCC chair. He served as chair from 2005-2006.

Major Food Industry Reps Appointed to NCI Industry Advisory Board

Bob Majkrzak, president and CEO of Red River Commodities, Fargo, N.D., was re-elected to a second term as chair of NCI's Industry Advisory Board (IAB). Six board members begin three-year terms: **Tim Dodd**, Dakota Growers Pasta Co.; **Greg Johnson**, Premier Pulses International; **Deon Maasjo**, CalDak International LLC; **Jay Romsa**, General Mills; **Bob Sinner**, Sinner Bros. & Bresnahan; and **Rene Steiner**, Buhler, Inc.

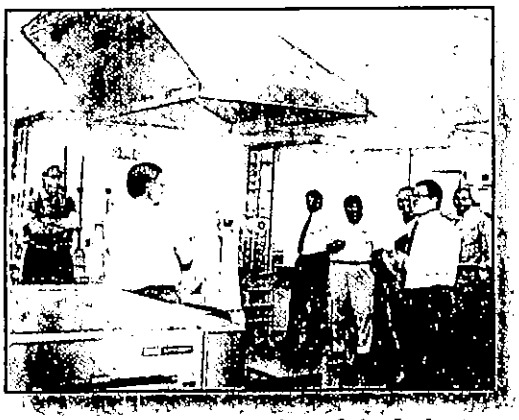
The IAB provides advice on technical aspects of services and educational programs. IAB draws its members from the agricultural supply and processing industry and the grain trade in Minnesota, Montana, North Dakota and South Dakota.



North Dakota State Mill donated a laboratory-scale Buhler Mill to NCI in June. The mill is designed for milling hard wheat, such as HRS, HW, or HRW. "This mill will expand our ability to service the regional processors and producers with quicker turn-around on samples," says Brian Sorenson, NCI's Technical Director. This unit is designed to typically mill between 5 and 10 lb. samples, although it can also be used to mill amounts up to 50 lbs. Buhler's laboratory mill is used around the world. "Vance Taylor, the general manager of ND Mill, who serves on the Northern Crops Council and NCI Industry Advisory Board, stepped forward after he heard about our needs and offered this mill to us. It is a great addition to NCI's technical capabilities," says Sorenson.

2006 IAB

- **Robert Majkrzak**, IAB Chair
  Red River Commodities
- **David Berg**
  American Crystal Sugar
- **Darwin Britzman**
  International Nutrition
- **Rodney Christianson**
  SD Soybean Processors
- **Ron DeJongh**
  AGP Grain, Ltd.
- **Joel Dick**
  Roman Meal Milling
- **Mark Dillon**
  Golden Growers Coop.
- **Timothy Dodd**
  Dakota Growers Pasta
- **Carrol Duerr**
  Midwest Shippers Association
- **Tony Flagg**
  Pasta Montana
- **Gordon Gingras**
  Degussa Corporation
- **Dave Holland**
  Busch Agricultural Resources
- **Greg Johnson**
  Premier Pulses International
- **Brad Kjar**
  Alton Grain Terminal
- **Ray Lottie**
  General Mills (retired)
- **Deon Maasjo**
  CalDak International, LLC
- **John McLean**
  Cargill
- **Jay Romsa**
  General Mills
- **Robert "Bob" Sinner**
  Sinner Bros. & Bresnahan
- **Mark O. Stutrud**
  Summit Brewing Co.
- **Rene Steiner**
  Buhler, Inc.
- **Vance Taylor**
  North Dakota Mill
- **Jennifer Tesch**
  SK Food International
- **Ken Ulbrich**
  Bay State Milling
- **Kimberly Vachal**
  Upper Great Plains Transportation Institute



During the annual meeting of the Industry Advisory Board, Brian Sorenson, (2nd from right), NCI Technical Director, led the board on a tour through the NCI Laboratories.

Manager Brad Kjar, (left), explains operations at Alton Grain Terminal to the Advanced Grain Procurement short course participants during a tour of the facility.

Vance Taylor, (4th from right), President and General Manager at North Dakota Mill, hosted the Korean Durum Milling Team in August. Dr. Woojoon Park, (4th from left), Sr. Tech. Marketing Specialist, U.S. Wheat Associates, Seoul Office, escorted the team.

Thank You to our 2006 Cooperators and Speakers

North Dakota State Univ.
Ag Communication
Richard Mattern
Agribusiness & Applied Economics
Dr. George Flaskerud
Dr. William Nganje
Dr. Bill Wilson
Animal & Range Science
Research Ext. Centers
Cereal and Food Sciences
Dr. Clifford Hall
Plant Sciences
Dr. Bill Berzonsky
Dr. Duane Berglund
Dr. Elias Elias
Dr. Ted Helms
Dr. Richard Horsley
Dr. Frank Manthey
Dr. Mohamed Mergoum
Dr. Paul Schwarz
Veterinary & Microbiology Science
Dr. Charlene Wolf-Hall
AGP Grain Ltd., Mpls, MN
Ron DeJongh
Alton (ND) Grain Terminal
Keith Finney
Brad Kjar
American Feed Industry Ass.
Keith Epperson
American Soybean Assoc.
Anheuser-Busch, Inc.
Greg Ballentine
Judd Carlson
Mike Stevens
Paul Bolin
Arfstrom Farm & Seed Co.
Willmar, MN
Glenn Arfstrom
Bobcat Co., West Fargo, ND
Kirk Haws
Briess Malts & Ingredients
David Kuske
Cargill, Inc., Mpls, MN
Sam Bonilla
Terry Garvert
CH Trade, Fargo, ND
Chris Harris
CHS
Inver Grove Heights, MN
Linda Barclay
Rick Dusek
Mike Klein
Mankato, MN
Pam Schubbe
Savage, MN
Clint Gergen
Superior, WI
Lance Helgeson
CoBank, Denver, CO
Mark Francis
Conte Luna Foods
Grand Forks, ND
Rocky Kristek
Dakota Growers Pasta Co.
Carrington, ND
David Tressler
Duluth (MN) Seaway Port Auth.
Ron Johnson
Lisa Marciniak
Adolph Ojard
FC Stone, Kansas City, MO
Ricardo Garcia

Director Pat Berglund talks to a production ag class from Lake Area Technical Institute, Watertown, S.D., at NCI.

Feed Management Systems
Brooklyn Center, MN
Bob Luedtke
GIPSA/FGIS
Art Boline
Ed Stallman
Goldenberg, Hehmeyer & Co.,
Minneapolis, MN
Helen Pound
Howe Farm, Casselton, ND
Jim Howe
Hunter Grain Co., Hunter, ND
Paul Skarnagel
Informa Economics,
New Brighton, MN
Dr. David Bullock
International Nutrition Consulting, Sioux Falls, SD
Dr. Darwin Britzman
Minneapolis Grain Exchange
Mark Bagan
Ray Erickson
Minnesota Crop Improvement Association, St. Paul, MN
Jim Boots
Midwest Shippers Association
St. Paul, MN
Carrol Duerr
Bob Zelenka
Minnesota State University
Moorhead, MN
Dr. Peter Geib
The Money Farm
Casselton, ND
Mike Krueger
Montana State University
Monterey (CA) Gourmet Foods
Carl Anderson
New World Pasta
Harrisburg, PA
Dr. David Hahn
ND Barley Council
ND Dept. of Agriculture
Garry Wagner
ND Grain Inspection Service
Fargo, ND
Darcy Rasmussen
ND State Mill and Elevator
Grand Forks, ND
Robert Sombke
Vance Taylor
ND Wheat Commission
Neal Fisher
Erica Peterson
Jim Peterson
ND Dry Pea and Lentil Council
Northland Organic Foods
St. Paul, MN
Carolyn Lane
Rahr Malting
Dr. Richard Joy
Roman Meal Milling Co.
Dr. Joel Dick
Silliker, South Holland, IL
Dr. Erdogan Ceylon
South Dakota State Univ.
Animal and Range Sciences
Dr. Bob Thaler
Dr. Alvaro Garcia
Southern States Cooperative
Richmond, VA
Matt Frederking
SunRich Inc., Hope, MN
LaVerne Klecker
The Scoular Company
Minneapolis, MN
Mike Smith
Overland Park, KS
Susan Blomer
University of MN
Dr. Jim Orf
Upper Great Plains Transportation Institute, Fargo, ND
Tamara VanWechel
USA Dry Pea & Lentil Coun.
USDA/FAS/Cochran Fellowship Program
USDA Northern Crops Science Lab
Dr. Lynn Dahleen
U.S. Grains Council
U.S. Wheat Associates
Peter Lloyd
John Oades
Wells Fargo Bank
Minneapolis, MN
Chris Davis

Thank You to Our 2005-2006 Funding Partners

Minnesota Department of Agriculture
Minnesota Soybean Research and Promotion Council
Minnesota Wheat Research and Promotion Council
Montana Wheat and Barley Committee
State of North Dakota
North Dakota Barley Council
North Dakota Corn Utilization Council
North Dakota Dry Pea and Lentil Council
North Dakota Oilseed Council
North Dakota Soybean Council
North Dakota Wheat Commission
Northarvest Bean Growers
State of South Dakota
South Dakota Wheat Commission
USA Dry Pea and Lentil Council

Participants Focus on Intricacies of the U.S. Grain Marketing System

Grain Procurement Management for Importers Short Course

China, Colombia, El Salvador, Hong Kong, Indonesia, Italy, Japan, Malaysia, Poland, Portugal, Spain, Thailand, USA, Vietnam

September 25 - October 4, 2006

Crop buyers from fourteen countries and four continents came to NCI for the "Grain Procurement Management for Importers" short course from Sept. 25 to October 4.

The sixteen participants were from China, Colombia, El Salvador, Hong Kong, Indonesia, Italy, Japan, Malaysia, Poland, Portugal, Spain, Thailand, USA, and Vietnam. They represented large and small food processing, feed manufacturing, and trading companies that import HRS wheat, durum wheat, corn, soybeans, barley and other commodities. Several participants were sponsored by U.S. Wheat Associates and the USDA FAS Cochran Fellowship Program.

Crabtree

"The number one goal of this course is to ensure that procurement managers gain a clear understanding of the U.S. grain marketing system" says John Crabtree, NCI Assistant Director and coordinator of the courses. "Grain buyers need purchasing strategies to reduce their risk and we want to make sure that they understand some of the purchasing tools that are available. They need to understand how to write their purchase contracts so they receive the quality of grain that they desire."

"The course also provides a forum where these procurement managers can learn from each other. They can pick up a lot from discussions among themselves. We are dealing with a younger generation who is well-traveled and well-informed. Because of this, we can start at a higher level of discussion and topics than previously," Crabtree concludes.

Study topics include U.S. grain handling and transportation systems, cash and futures markets, basis, U.S. grain grading standards, basic hedging principles, options, commodity analysis, price risk management, quality specifications, alternative sources, financing imports, grain situation and outlook, logistics management, contracts and arbitration, managing ocean freight risk, and exporter tendering strategies.

In the first week of the course, the group toured the Hunter (N.D.) Grain Company elevator with Paul Skarnagel and visited the Jim Howe farm near Casselton, N.D. During the second week, the course participants traveled to Duluth, Minn., where they toured the Duluth/Superior Port Facilities and the CHS Export Grain Terminal. During the tour of CHS, Inc. Barge Facility at Savage, Minn., Clint Gergen explained the grain transport system on the Mississippi River. Crabtree and Linda Briggs, NCI office manager, escorted the group during the second week.

Trading games both at NCI and at the Minneapolis Grain Exchange (MGEX) are a special feature of this course.

At the MGEX, Helen Pound of Goldenberg, Hehmeyer & Co., led the participants in a mock trading exercise on the Exchange floor and explained the fine points of grain trading. Course speakers were: Dr. William Wilson and Dr. George Flaskerud, NDSU; Art Boline, GIPSA/USDA; Darcy Rasmussen, NDGIS; Dr. David Bullock, Informa Economics; Dr. John Oades, U.S. Wheat Associates; Jim Peterson, N.D. Wheat Commission; Mike Krueger, The Money Farm; Mark Francis, CoBank; Terry Garvert and Sam Bonilla, Cargill; Ron DeJongh, AGP Grain; Rick Dusek, CHS; Mike Klein, CHS; and Mike Smith, Scoular Company.

Risk Management Tools Are Essential for Today's Grain Importers

Advanced Grain Procurement Strategies Short Course

Germany, Japan, Mexico, Singapore, Taiwan and USA

May 8 - 12, 2006

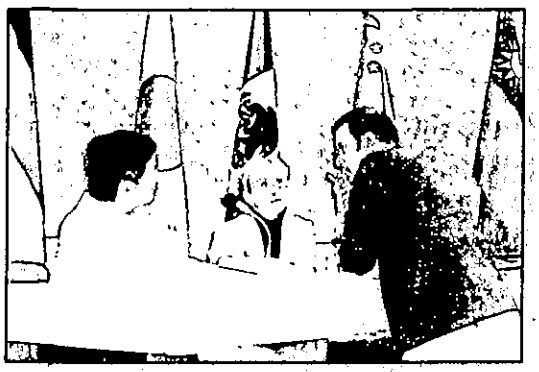
John Oades, Vice President, U.S. Wheat Associates, Portland, explains to crop buyers how to write contract specifications so that they receive the exact quality of wheat they want.

Fourteen participants from leading flour mills, feed mills, and trading companies in Germany, Japan, Mexico, Singapore, Taiwan and USA attended the Advanced Grain Procurement Strategies Short Course in May.

"World competition for market share and profitability has increased, both globally and among companies within a country. It is very important that our overseas customers know more about price risk management, which is the focus of this course," says NCI Director Pat Berglund.

U.S. Grains Council (USGC) provided sponsorships for four Mexican participants. Julio Hernandez, Technical Director of the Mexico and Central America USGC Office, Mexico City, was their escort. U.S. Wheat Associates (USW) provided sponsorships for five participants from Germany and Taiwan. Ronald Lu, Country Director of USW's Taipei Office, escorted the Taiwanese delegation.

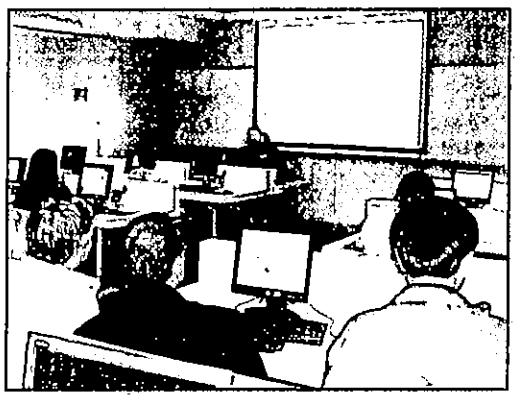
Participants learned how to develop, execute, and integrate price-risk management strategies during the week long course. Course topics included basis analysis, hedging, options, Value-at-Risk (VaR), trading strategies, current grain situation and outlook, contract specifications, long-term supply relations, ocean freight risk, logistics management, international money market and commercial export trading practices.



John Crabtree, NCI's assistant director, coordinated the course. "Grain and oilseed prices can be quite volatile in the global market, so importers need to implement trading strategies that reduce their price risk. As a result of privatization, many players have entered the marketplace. Companies are discovering that they need to develop a risk management program to be successful in a competitive environment," said Crabtree.

Special features during the course included hands-on computer risk exercises, trading games, and a tour of the Alton Grain Terminal, a shuttle train facility near Hillsboro, N.D. Participants also attended separate wheat and corn breakout sessions to learn specific purchasing strategies.

Course speakers included: Dr. William Wilson, North Dakota State University; Terry Garvert, Cargill; Brad Kjar, Alton Grain Terminal; Dr. David Bullock, Informa Economics; Jim Peterson, North Dakota Wheat Commission; Mike Krueger, The Money Farm; Linda Barclay and Mike Klein, CHS, Inc.; John Oades, U.S. Wheat Associates; Ricardo Garcia, FC Stone; Susan Blomer, Scoular Company; and Chris Davis, Wells Fargo Bank.



Pasta Production and Technology Short Course

Brazil, Nigeria, Singapore, USA, and Venezuela

April 5 -7, 2006

"Our greatest strength in pasta education is teaching traditional Italian-style pasta processing," says Brian Sorenson, NCI Technical Director. This was demonstrated to twenty-three pasta manufacturers as they learned the finer points of producing high-quality pasta during the Pasta Production and Technology Short Course in April.

Sorenson

"Our participants have hands-on access to pasta extrusion equipment, allowing them to process pasta, dry it, and test it for cooking quality and color. I think they were excited about this opportunity. We also added sessions on refrigerated pasta and microbiology issues associated with pasta," said Sorenson. "In response to health and whole-grain trends, we looked at how to use functional ingredients, such as oilseeds and whole grains, in pasta."

Dr. Carl Anderson, Director of Quality Assurance for Monterey Gourmet Foods, Salinas, Calif., was a guest speaker at the course. "A renewed focus on health and nutrition has enhanced the image of pasta and, in particular, refrigerated pasta," said Anderson. "Today, America's consumer is looking for products that are healthy and nutritious, easy to prepare, and speak gourmet."

Dr. Carl Anderson, Director of Quality Assurance for Monterey Gourmet Foods, Salinas, Calif., was a guest speaker at the Pasta Production short course.

Additional speakers at the course included Dr. David Hahn of New World Pasta; Dr. Elias Elias, NDSU's Durum Wheat Breeder; Dr. Frank Manthey, NDSU Department of Plant Sciences; and Dr. Charlene Wolf-Hall, NDSU Department of Veterinary and Microbiology Science.

Pasta: Raw Materials and Processing Short Course

Brazil, Costa Rica, Peru, Spain, and Venezuela

August 14-18, 2006

Interest in the production of higher quality Italian-style pasta brought nine international pasta manufacturers to Northern Crops Institute for a week-long course. Participants hail from Brazil, Costa Rica, Peru, Spain and Venezuela.

"For our durum producers, this course represents a marketing opportunity," says Dr. Patricia Berglund, NCI Director. "These participants come from countries that are interested in a higher quality, more Italian-style pasta, like we produce in this country. This requires durum wheat or at least a blend of high protein wheats. Many countries manufacture pasta, but it is made with softer or lower quality wheat. For example, I was told that Brazil only uses 3% durum in their entire pasta industry. There is a lot of opportunity for growth in the sale of U.S. durum and hard red spring wheat," she concludes.

Eight participants were sponsored by the USDA Foreign Agricultural Service Cochran Fellowship Program. One was sponsored by U.S. Wheat Associates.

The course focused on traditional Italian-style dry pasta production, featuring lectures, hands-on laboratory experience, and pilot-scale pasta processing. The group also toured Dakota Growers Pasta Company, Carrington, N.D., hosted by David Tressler, Vice President of Operations.

Bonnie Jacobson, NCI Food Technologist, and two participants hang and trim pasta before it goes into the pasta dryer.

Durum Wheat Milling Short Course

South Korea

August 2-4, 2006

Examining the differences between bread wheat milling and durum wheat milling was the focus of the South Korean milling team at Northern Crops Institute August 2-4. The five-member team attended the Durum Wheat Milling Short Course, sponsored by U.S. Wheat Associates (USW).

The team was comprised of managers from several leading South Korean flour mills and food companies including Daehan Flour Mills Co., Dongah Flour Mills Co., Korea Flour Mills Co., Samyang Milmax Corp., and the CJ Corporation. They were escorted by Woojoon Park, Senior Technical Marketing Specialist for USW, Seoul.

Peter Lloyd, Regional Technical Director, USW, Tunis, was the course's main lecturer. Brian Sorenson, NCI Technical Director, coordinated and taught in the course.

"South Korea's flour milling industry is among the most technically complex and competent. However, they have milled durum in very limited amounts for the past 50 years. During this course, I introduced this group to the differences between bread wheat milling and durum wheat milling. Millers working with durum need to understand the complexities of durum wheat, durum specifications, and the milling of durum for a number of end uses," said Lloyd.

The Korean milling team and course instructors observed the NCI durum mill in operation. NCI's mill is the only pilot-scale durum mill in the country.

"I believe that durum, semolina, and pasta products are going to form a bigger part of the diet in northern Asia over time, as current pasta consumption increases in South Korea, Japan, and Taiwan. As the populations expand, we are going to see an increase in demand," observed Lloyd.

Durum Milling and Pasta Processing Education Directly Supports NCI Mission

"Northern Crops Institute is the premier educational facility in the U.S. for learning about durum wheat and pasta manufacturing," says NCI Director Pat Berglund. "This year, we had course participants representing several countries that are very solid buyers of U.S. wheat." As the nation's largest durum producers, North Dakota farmers alone produce enough durum each year to make 13.7 billion servings of spaghetti, according to the N.D. Department of Agriculture. Montana is the second largest durum-producing state.

TOP MARKETS FOR U.S. DURUM & HRS
2005-2006 (Million Bushels)

DURUM		HRS	
Italy	11.0	Japan	58.0
Algeria	10.0	Philippines	36.0
Morocco	4.0	Venezuela	23.0
Venezuela	2.0	Taiwan	20.0
Tunisia	1.8	Italy	17.0
Nigeria	1.7	Spain	15.0
Spain	1.0	Korea	14.0
Costa Rica	1.0	Mexico	12.0
Portugal	0.5	Thailand	9.0
Dominican Republic	0.5	Dominican Republic	7.0

Dakota Growers Pasta Company, Carrington, N.D., hosted tours for the Nigerian delegation (shown above) at the April Pasta Production and Technology Short Course, and the August Pasta: Raw Materials Short Course.

Safe Food is Ultimate Concern of Feed Manufacturing Industry

Feed Safety for Safe Food Short Course

Mexico, Taiwan and USA

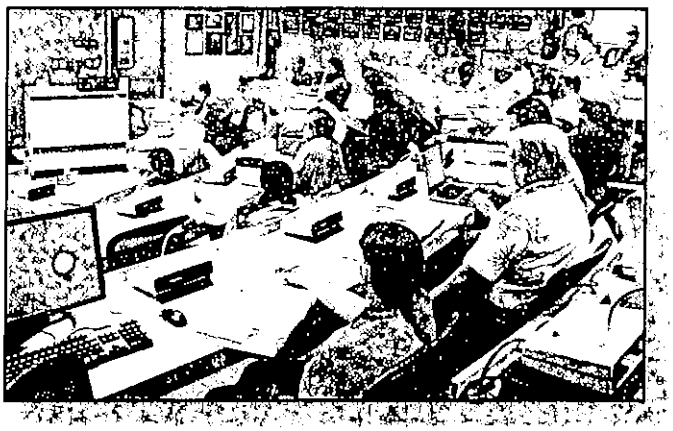
July 19-21, 2006

Twenty-eight participants from Mexico, Taiwan and United States came to NCI to learn more about manufacturing safe animal feed. The "Feed Safety for Safe Food" short course ran from July 19 to July 21. The American Feed Industry Association (AFIA) and NCI co-sponsored the course.

U.S. Grains Council (USGC) sponsored a Mexican delegation of ten people. Julio Hernandez, Technical Director for the USGC Mexico City office, escorted the group.

Koch

"The general populace has become much more concerned about food safety issues in recent years," according to Dr. Kim Koch, manager of NCI's Feed Production Center and coordinator of the course. "The feed industry needs to ensure that the meat, milk and eggs produced by the animals that we feed will not pose a threat to the people who consume them. These concerns are pushing new regulations to ensure food safety," says Koch.



The course featured lectures by top experts in the feed industry, case study scenarios, transportation, producers and processors, panel discussions, hazard analysis critical control point, (HACCP), biological, chemical and physical threats, risk analysis, crisis communication, regulatory agencies, and federal regulations.

"Under current U.S. law, the feed industry is required to be able to trace their product one-step forward and one-step back, which means they need to know where it came from and who they passed it on to. We are a service industry. We are not only feeding animals, but ultimately we are feeding people," Koch concludes.

Knowing Proper Protocol Will Increase Your International Business Success

NCI sponsored a day-long seminar in February on international protocol, "Increase Your Success in the International Arena," led by NCI Director Pat Berglund.

Robert Majkrzak, Red River Commodities; Kirk Haws, Bobcat; and Chris Harris, CH Trade, provided tips on doing international business. Dr. Peter Geib, Professor of Management and International Business at Minnesota State University Moorhead, shared his perspective on business climates in China and India.

NCI Director Pat Berglund demonstrates proper Continental dining style during the Protocol Seminar.

The seminar addressed many areas of international protocol including how to present a business card, make introductions, present gifts, and appreciate cultural differences. During a four-course luncheon, Berglund demonstrated American and Continental dining styles and appropriate table etiquette for a formal meal.

Northern Specialty Soybean Conferences Held in St. Cloud and Marshall, Minn.

NCI's 2006 Northern Specialty Soybean Conferences gave both beginning and experienced producers valuable opportunities to learn more about specialty soybeans and to interact with processors who handle them.

Minnesota Soybean Research and Promotion Council and NCI co-sponsored the March conferences.

"The partnership we have with Northern Crops Institute allows us the opportunity to make producers aware of the revenue-producing opportunities that exist when growing Identity Preserved (IP) soybeans," says Lance Petersen, vice president of the Minnesota Soybean Growers Association and International Marketing Committee member. "Domestic and global markets are rapidly emerging for differentiated soybean products and the NCI conferences will provide growers the information needed to effectively compete for these unique soybean market opportunities."

Improving Barley Malt Quality Attracts North American Brewers to NCI Course

NCI/ASBC Barley Malt Quality Short Course

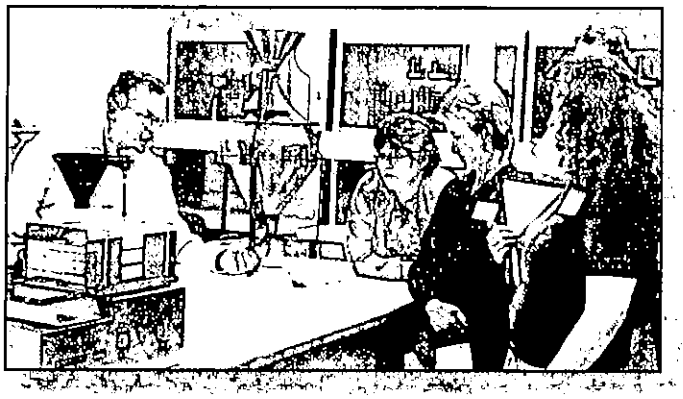
Canada, Mexico and USA

August 29-September 1, 2006

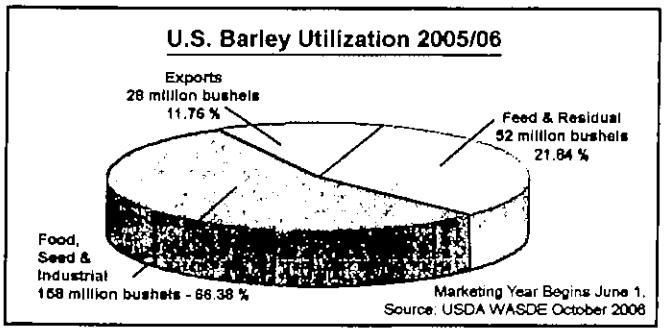
Fourteen brewers from North American companies attended the Barley Malt Quality Evaluation technical course at NCI in August. During the course, the group learned more about the quality components of barley and malt necessary to produce an acceptable beer. They represented Anheuser Busch; Brewer's Alley; Busch Agricultural Resources; Cervecceria Cuauhtemoc-Moctezuma; Grupo Modelo; Labatt Breweries of Canada; McAuslan Brewing; Prairie Malt Limited/Cargill Malt; and University of Minnesota.

Dr. Paul Schwarz, NDSU professor of plant science, was program coordinator and course instructor. Additional instructors included Dr. Richard Horsley, NDSU barley breeder and professor of plant science; Paul Bolin, Anheuser-Busch; Dr. Lynn Dahleen, USDA Northern Crop Science Laboratory; Dave Kuske, Briess Malting Co.; Jud Carlson, Anheuser-Busch Moorhead; and Rich Joy, Rahr Malting Co.

American Society of Brewing Chemists, Institute of Barley and Malt Sciences, and NCI co-sponsored the course.



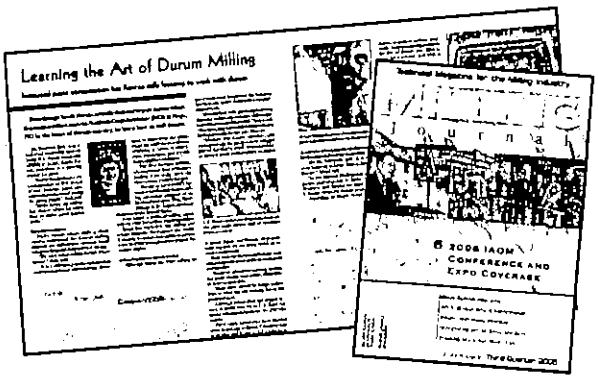
U.S. Grains Council sponsored five participants who were escorted by Julio Hernandez, technical director of USGC, Mexico City. "Barley malt imports [into Mexico] will continue to be strong for the foreseeable future because Mexico breweries continue to modernize both their brewing capacity and distribution," says Hernandez. "The Mexican industry produces over 60 million hectoliters in 14 breweries across the country. Total imports of barley malt are over 180,000 metric tons with an approximate value of USD $50 million (65% U.S. origin – 35% other origins)."



2007 Short Course Schedule

(Check www.northern-crops.com for schedule changes.)

April 17-19	Pasta Production and Technology
May 7-11	Advanced Grain Procurement Strategies
May 21-25	NCI/USADPLC Pea Flour Utilization in Noodles
June 12-14	Basics of Wheat and Flour Quality
July 17-19	Baking with Soy
Aug. 27-31	NCI/USADPLC Pea Flour Utilization in Noodles
Sept. 17-26	Grain Procurement Management for Importers
Oct. 2-4	Specialty Milling for Whole Grain Foods
Oct. 16-18	Distillers Grains Quality and Utilization
Nov. 6-9	Flaxseed: Adding Functional Food Value



Sologuk Continues as Milling Journal Columnist

Sally Sologuk, NCI Public Relations/Communications Specialist, begins her third year as a guest columnist with the Milling Journal. The quarterly journal is a division of Grain Journal, Decatur, IL.

Sologuk

The column addresses issues in the U.S. wheat industry. Her column in the August issue is about the Korean millers who came to NCI in August to learn about durum milling and the well-developed durum milling industry in North Africa.

The columns are posted on NCI's Technical page at: www.northern-crops.com/technical/technical.htm. Click on the title of the column that you are interested in from those listed in the "Topics of Interest" sidebar.

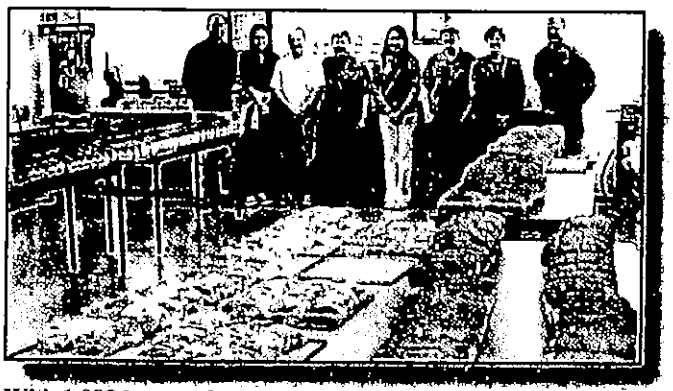
Southeast Asia Wheat Blending Team Conducts Baking Trials at NCI

A technical team from Thailand and Malaysia came to NCI to evaluate flour made from U.S., Canadian and Australian wheat. They were sponsored by U.S. Wheat Associates and escorted by Roy Chung, bakery consultant for U.S. Wheat Associates, Singapore.

The team and NCI's technical staff spent a week running 24 sets of baking experiments, producing over 1,088 loaves of bread from a variety of blending combinations. Brian Sorenson, NCI Technical Director, says, "One of the important reasons we bring teams to NCI for baking trials is that the team actually produces the results. They aren't just shown the data that we produced. It lends great credibility to the project, because they know nothing has been biased."

"The group's visit offers them actual hands-on experience in testing the performance of high protein wheat, particularly HRS and HRW wheat grown in our region, to see if it enhances the performance of lower quality wheat. Cost is always a determining factor to millers. We'd like to have everyone use 100% U.S. HRS, but the reality is that they are not going to, due to cost. We want to demonstrate that you can blend in small amounts of spring wheat to enhance the quality of local wheat," notes NCI Director Pat Berglund.

A member of the SE Asian Team begins evaluation of the bread.



With 1,088 loaves of test bread lined up for evaluation, the team takes a moment to pause for a photo.

Barley Kernel ID Workshops Hosted by AMBA

Twenty-two representatives from the region's barley malt industry attended the Barley Variety Identification Workshops in NCI's Commodity Grading Laboratory in October. The workshops focused on utilization of barley variety identification techniques based on differences in kernel morphology. Scott Heisel, AMBA Vice President & Technical Director, conducted the workshops, which were hosted by American Malting Barley Association (AMBA).

NCI Durum Mill is Fine-Tuned by IAOM Milling Operative of the Year Todd Peterson of ND Mill

Todd Peterson, head miller at the North Dakota Mill, Grand Forks, N.D., assisted in the start-up of the NCI durum mill and helped optimize semolina quality in anticipation of the August Korean durum milling course and other projects. Peterson recently was named 2006 Milling Operative of the Year by the International Association of Operative Millers. "This is a great opportunity for us to have a truly excellent miller here to fine-tune our pilot durum mill," says Brian Sorenson, NCI Technical Director.

Linda Briggs, (left), Office Manager; Miho Kaneko, (center), student assistant from Japan; and Pat Limesand, (right), Account Technician, are instrumental in keeping NCI courses, technical services, and the facility running.

NCI Enlarges Scope to Build Expertise in Oilseeds and Pulses

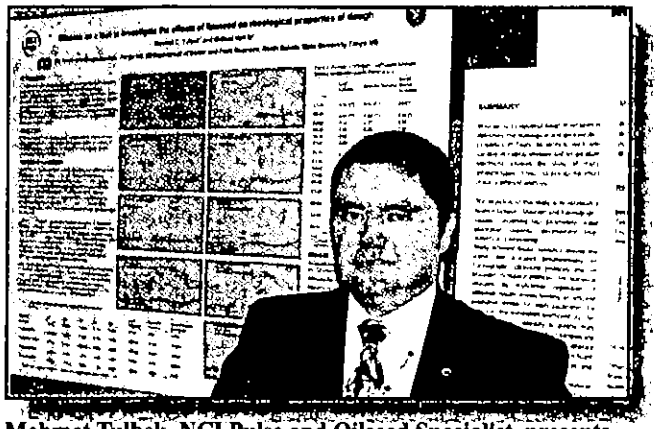
Flaxseed: Adding Functional Food Value Short Course Offered November 6-9, 2007

As consumer interest in functional food grows, companies are seeking out information about adding oilseeds, such as flax, to their baked goods and other food products. The technical staff at NCI have worked on a number of projects in 2006 to augment expertise in oilseeds and pulses that they will use to assist companies with their processing needs.

Mehmet Tulbek became NCI's Pulse and Oilseed Specialist in January 2006. He will graduate in a few weeks from North Dakota State University with his Ph.D. in Cereal Science. Tulbek currently leads several projects at NCI, focusing on flax and other oilseeds.

Two of the projects involve adding flax to bean products.

An extruded bean snack uses navy bean flour, pinto bean flour, and corn flour to make extruded puffed corn curls. Enough flaxseed was added to the product to produce a satisfactory omega-3 per serving level. "The purpose of the project is to develop a product that contains a healthful daily intake of ALA in one serving, and almost the whole daily intake of ALA in two servings. ALA is a polyunsaturated omega-3 fatty acid related to a lower risk of cardiovascular disease," says Tulbek. This project is funded through Northarvest Bean Growers.



Mehmet Tulbek, NCI Pulse and Oilseed Specialist, presents Mixolab data at American Association of Cereal Chemists

Trials have been run on a traditional Middle Eastern bean paste product made from navy bean flour, pinto bean flour, and black bean flour. "The object of this project is to use bean flour in combination with HRS flour, flaxseed oil, and ground flaxseed, to make a functional food product with a daily ALA intake level of 1,000 to 1,700 mg. In the last decade, there has been a huge increase in the ALA omega-3 fatty acid consumption, driven by baby boomers in U.S. The market is still growing," he says. This project is funded by the North Dakota State Board of Agricultural Research and Education, and Northarvest Bean Growers.

Other projects in oilseeds include the development of flax-enhanced recipes for Ameriflax (see story on page 14), presentations at industry meetings, and the co-authoring of two academic book chapters on flaxseed.

Tulbek presented two poster sessions at the annual meeting of the American Association of Cereal Chemists. *Mixolab as a tool to investigate the effects of flaxseed on rheological properties of dough* is co-authored by Tulbek and Dr. Clifford Hall III, NDSU Assistant Professor of Cereal Science. *Evaluation of U.S. durum wheat with Mixolab* is a study that Tulbek co-authored with Dr. Frank Manthey, NDSU Associate Professor of Plant Science, and Brian Sorenson, NCI Technical Director.

"Flaxseed," is a chapter in the Advances in Food and Nutrition Research, Vo. 51, co-written by Tulbek, Dr. Clifford Hall and Ms. Yingying Xu, an NDSU graduate student in Cereal and Food Science. The chapter covers all aspects of flaxseed—composition, health benefits, and quality/functionality.

Tulbek contributed the quality and functionality section, which covers sensory properties, flaxseed processing, milling, baking, extruded products and dairy products. The book is available from Elsevier, Inc.

"Dr. Hall and I have another book chapter coming out shortly about omega-3 enriched bread. A portion of the chapter uses Mixolab data. Woodhead Publishing, UK, is the publisher," says Tulbek.

"Much of our flax research examines the effects of flaxseed on HRS wheat flour quality. All these efforts with the Mixolab, baking applications and understanding the physical properties of the dough are complementary to next year's flaxseed short course that will be offered November 6-9 at NCI," says Tulbek.

Crops Processed at NCI in 2006

Barley	Lentil
Beans, Black, Navy and Pinto	Sorghum
Canola	Soybeans
Chickpea	Sunflower Seeds
Corn	Wheat, Durum
Dried Distillers Grains	Hard Red Spring
Field Peas, Green and Yellow	Hard Red Winter
Flaxseed	Hard White

Morgan Named NCI Processing Technician

Rilie Morgan is the new Processing Technician at NCI. His responsibilities include operating the Wenger twin screw extruder, maintaining equipment, and keeping NCI's inventory of all ingredients and equipment. He is a graduate of the University of North Dakota and North Dakota State University.

Morgan

New Equipment Increases NCI Capabilities and Technical Service

Several major pieces of equipment have been added to the NCI labs, allowing the technical staff to better serve the increased demand for technical services. Most of these items are available worldwide, enabling the technical staff to produce samples that are consistent anywhere.

NCI worked with Fitzpatrick Corporation to design the food-grade **Fitzmill hammermill** specifically for our needs. It mills or grinds many ingredients and has a large range of grinding screens to give greater flexibility. The feeder has a variable speed drive, and the hammermill's drive motor has a variable speed controller. The Fitzmill cools the product with liquid nitrogen and cools the main housing with water.

DA 7200 Diode Array NIR Analyzer is the next generation of NIRs. It can quickly and accurately analyze a large variety of crop components by measuring protein, fat, and moisture. It gets results in a matter of seconds instead of days.

The **Hosokawa micron airjet sieve** is used to measure products with slightly higher oil content or other properties that may plug or blind a standard sieve screen. It accurately measures particle-size even in difficult-to-analyze material. The micron airjet sieve allows our staff to provide food companies with standard information on how and to what particle-size the food is ground.

NCI is among the first laboratories worldwide to install the **Mixolab**, which evaluates protein and starch properties of a flour sample. It is designed for wheat, but can be used for any type of food flour. The Mixolab measures gluten strength properties and closely replicates a farinograph. It takes the sample through an increased temperature profile to evaluate the impact that the sample has on starch properties.

Short Courses on Pea Flour Utilization in Noodles Offered at Two Sessions in 2007

Two new courses on pea flour utilization will be offered at NCI in 2007. The courses will be offered by invitation. Funding for the courses comes from USA Dry Pea and Lentil Council. Pea flour, which is especially popular in Asia for use in noodles, can increase the protein and fiber content of pasta and noodles, due to the higher fiber content of pulse crops.

"Pea is primarily used for vermicelli noodle making and pasta products. Pea flour has unique color and flavor attributes," according to Mehmet Tulbek, who will coordinate the courses. "Many noodles and pasta companies are making pasta that is high in protein and fiber."

The courses will target Asian and European processors. "We will educate them about regional peas with regards to pea quality, milling properties, particle size evaluation, functional properties and process optimization," says Tulbek.

During a photo shoot at NCI, John Borge photographed flax-enhanced recipes, and Shannon Charpentier was food stylist.

Jacobson Develops Flax Recipes with Ameriflax

Ameriflax Executive Director Kaye Effertz and NCI Food Technologist Bonnie Jacobson collaborated to develop recipes for flax-enhanced baked products. "There is a lot of interest in using whole and milled flax in different health food and bakery recipes," says Effertz. "When we go to bakery shows, we want to promote flax and explain how to use it in baking recipes. NCI staff developed unique recipes aimed at food service and processors. These recipes will go out to bakers throughout the U.S., and we are highlighting them at the top food manufacturing shows, such as Institute of Food Technologists (IFT), and American Bakery Expo," she notes. The finishing touch was a professional photo shoot of flax-enhanced foods prepared from the recipes.

Jacobson

NCI Technical Staff Analyzes Data for Regional Soybean Quality Survey

It is barely out of the package, and the NCI technical staff are already using the DA 7200 Diode Array NIR Analyzer to do data analysis on soybeans. We are excited about executing the quality survey on regional soybeans and providing additional service to the industry. Mehmet Tulbek is heading up the evaluation work.

The quality survey for northern soybeans will compare N.D. soybean samples from 2005 and 2006. Partial data was collected in 2005 by the NDSU Cereal Science department. With new equipment that can fully analyze the soybeans, NCI is completing the 2006 samples.

"The project's goal is defining the best traits of regional soybeans. The 2005 survey was done in cooperation with the ND Soybean Council. The 2006 project is funded by the United Soybean Board, through USDA," says Tulbek.

Becoming a Center of Excellence for Soy in Baking

Baking with Soy Short Course Scheduled for July 17-19, 2007

Efforts are underway to develop NCI expertise necessary to become the regional center of excellence for applications of soy in baked products. As the production of soybeans gains ground in the region, this new knowledge complements NCI's existing expertise in the use of soy in pasta, extruded soy products, and livestock feed.

In January, four NCI staff members spent a week in NCI's baking lab with Dr. Clyde Stauffer, a soy baking expert from Technical Foods Consultants, Cincinnati, Ohio. The team learned more about baking with soy as they experimented with the addition of soy to a variety of baked products. Different soy flours were incorporated into pan and hearth breads, tortillas, cakes and cookies to evaluate protein fortification for improved nutrition and sensory characteristics, crumb whitening capability, increased water absorption and emulsification properties of the soy in these products. Other advantages of using soy in baked products are: increased shelf-life, product moistness, better crust color, improved water retention, decreased fat absorption in fried products.

Dr. Clyde Stauffer and Bonnie Jacobson examine effects of adding soy to dough.

"Soy is a product that requires an understanding of how to use it properly," says Brian Sorenson. "We conducted test baking to determine how to add soy flour, soy concentrate, and soy isolate to baked products. Another factor of adding new crops to products is how it affects the nutritional profile from the labeling standpoint. We need a clear understanding of the process in order to assist the baking industry with their projects."

Bonnie Jacobson, NCI's Baking Specialist, has spent several months experimenting with more soy-enhanced products. Her work has focused on pita bread, pizza crusts, and ciabatta bread. The addition of soy to baked products can make crusts more tender and pizza dough more pliable. "I was able to add up to 15% soy into pita bread, without affecting the quality attributes. In pizza crusts, I added up to ten percent soy before it started to tear while sheeting it. I am still experimenting with ciabatta bread," says Jacobson.

Minnesota Soybean Research and Promotion Council (MSRPC) provided generous sponsorship for these projects and staff training. As an outgrowth of these activities, a Baking with Soy short course will be offered July 17-19.

Sorenson Presents 2006 Regional Wheat Quality Reports in Asia and North Africa

Brian Sorenson, NCI Technical Director and NDSU Wheat Quality Specialist, will again travel to Asia and North Africa to present quality data about the 2006 hard red spring and durum wheat crop for U.S. Wheat Associates.

The Asian Quality Team will gather in Portland to meet with members of the international grain trade before leaving for Asia. From November 5-21, the team presents crop information in Taipei, Taiwan; Manila, Philippines; Bangkok, Thailand; Guangzhou, China; Seoul, Korea; and Tokyo, Japan. Japan, Philippines, Taiwan, Korea, and Thailand are in the top ten markets for U.S. hard red spring wheat in 2006.

The North African Tour is Nov. 29 to Dec. 9. They will travel to Tripoli, Libya; Tunis, Tunisia; Algers, Algeria; and Casablanca, Morocco. Algeria, Morocco, Tunisia, and Nigeria are in the top ten markets for U.S. durum wheat in 2006.

Koch Investigates Wheat Midds, DDGs, Peas, and Barley Malt Sprouts in Animal Feeds

Agricultural Products Utilization Commission (APUC) awarded a grant to NCI, Dakota Growers, and Carrington Research Extension Center (CREC) to investigate enhancing the value of wheat midds-based co-product feeds. The grant's principle investigators are Dr. Vern Anderson and Breanne Ilse, CREC; Wayne Sandberg, Dakota Growers; and Dr. Kim Koch, NCI's Feed Production Center manager. The objective is to define markets for combination co-product feeds for beef and dairy. They will also develop feeds using wheat midds, distiller grains, barley malt sprouts, and field peas as combination co-product feeds.

A study that investigated combining barley malt sprouts with DDGs in steam pelleting was completed at NCI Feed Production Center. Results indicate that this type of pelleting reduces the amount of electricity used without significantly decreasing the pellet quality. The work was funded by a grant from N.D. State Board of Ag Research and Education.

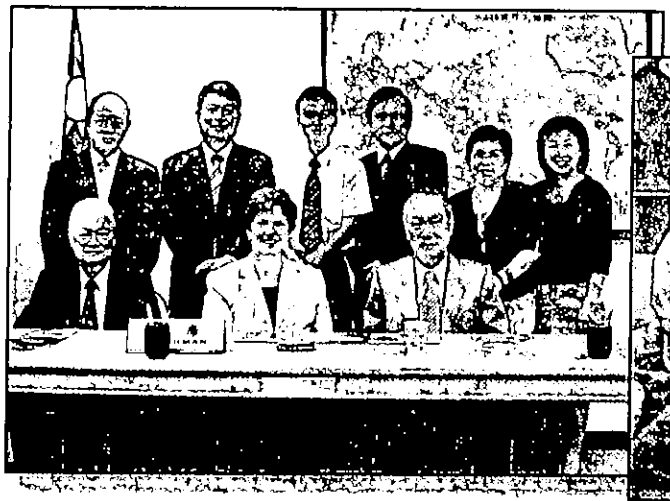
Trade Teams and International Consulting

Taiwan... Taiwan's highest ranking U.S.-based diplomats visited North Dakota in August to meet with leaders as part of an on-going effort to expand trade between Taiwan and North Dakota. N.D. Lt. Gov. Jack Dalrymple (far right) and NCI Director Pat Berglund (center) are pictured with Representative David Lee (second from right) of the Taipei Economic and Cultural Representative's Office in Washington, Taipei Economic and Cultural Office Director General Jack Chen (second from left), and Consular Officer Allison Chao (far left) at a reception in honor of the Taiwanese officials.

China... The 18-member China Crop Tour Team came to the NCI in September to learn more about the size and quality of the soybean crop produced in the region. While they were at NCI, they met with NCI Director Pat Berglund who briefed them on the work of NCI. Presentations by regional soybean experts included Dr. Duane Berglund, NDSU Extension Agronomist; Mehmet Tulbek, NCI Pulse and Oilseed Specialist; Dr. Ted Helms, NDSU soybean breeder; and Ms. Jennifer Li, Scoular Grain. They also visited the farms of many regional soybean growers in Minnesota, North Dakota and South Dakota. The visit was sponsored by the U.S. Soybean Export Council, in cooperation with the United Soybean Board and Foreign Agricultural Service of USDA, and the North Dakota Soybean Council.

Nordic Countries... Kjetil Storvik (center) of the Nordic Innovation Centre, Oslo, visited NCI and met with representatives of NCI's Industry Advisory Board, Jennifer Tesch (front left), and Bob Majkrzak (front right). The Nordic Innovation Centre is the Nordic Council of Ministers' organization for promoting an innovative and knowledge-intensive Nordic business sector.

Morocco...A team from GSM/FORAFRIC came to NCI in September to discuss their needs with Dr. Elias Elias, NDSU durum breeder, Dr. Mohammed Mergoum, NDSU HRS breeder, and Dr. Frank Manthey, NDSU Durum Quality Lab. The team was escorted by George Galasso, Regional Vice President, U.S. Wheat Associates. Jim Peterson, North Dakota Wheat Commission, facilitated. Morocco purchased 4 million bushels of U.S. durum in 2005-2006 to become the number three durum importer.

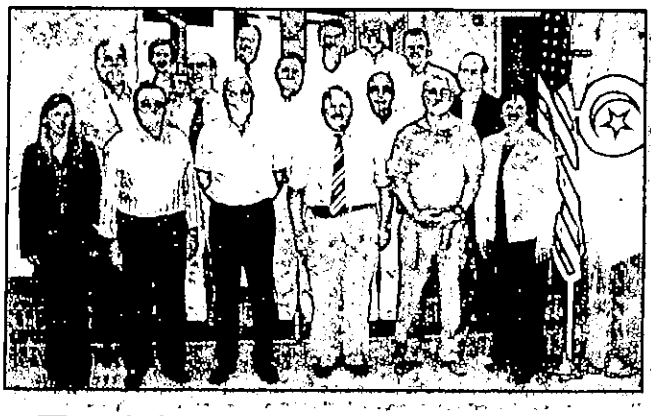


Taiwan...NCI Director Pat Berglund was part of the successful 29-member trade mission to Taiwan in June, led by N.D. Lt. Governor Jack Dalrymple. During the trip, Berglund met with US Grains Council Taiwan staff at their office (above left photo) and at the Taiwan Food Show (above right photo). C.M. Lynn, Director of the USGC Taiwan Office, (left-hand photo, back row, far left), and Clover Chang, Assistant Director of USGC Taiwan, (right-hand photo, far right), have brought many trade groups to NCI over the years. Berglund also met with U.S. Wheat Associates staff, former NCI participants, ASA officials, and Taiwanese governmental officers. Taiwan is the United States' 8th largest trading partner and a major buyer of regional goods. Taiwan has pledged to buy $372 million worth of U.S. wheat this year and in 2007.

Latin America & Caribbean...

NCI Assistant Director John Crabtree attended U.S. Wheat Associates' Wheat Buyers Conference in Mexico. It was an excellent opportunity to market regional crops and NCI programs, and to renew acquaintances with past participants and others.

Japan... Representatives from four major Japanese mills received information on 2006 crop conditions, wheat breeding, and food safety in August at NCI. The North Dakota Wheat Commission hosted the team. Japan was the number one importer of U.S. HRS wheat in 2005-06, with imports of 58 million bushels.

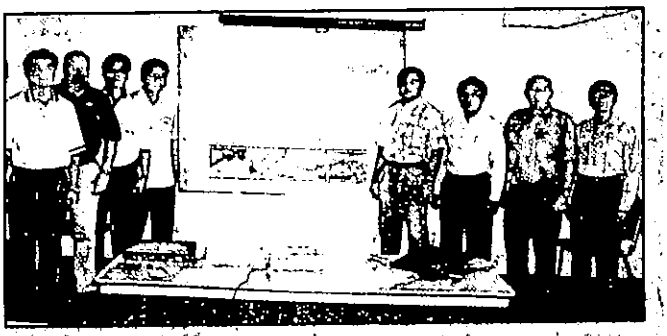


Tunisia...A high level team from the Tunisian Office of Cereals and private sector food processors visited NCI as guests of the ND Wheat Commission and U.S. Wheat Associates in September. Tunisia's 2006 durum crop was compromised by drought, which increased their need to import durum. The team was escorted by George Galasso, Regional Vice President, U.S. Wheat Associates, Rotterdam, Netherlands. This team buys more than 90% of the total imported wheat in Tunisia. Tunisia is a periodic importer of U.S. wheat. In 2005-2006, Tunisia imported 1.8 million bushels of U.S. durum.

Japan... Representatives of the Japanese Consumers' Cooperative Union and Ag-Cal Japan, a grain procurement company with overseas offices in the U.S. and Korea, visited NCI with their host, Bob Sinner (center) of Sinner Brothers and Bresnahan, Casselton, N.D.

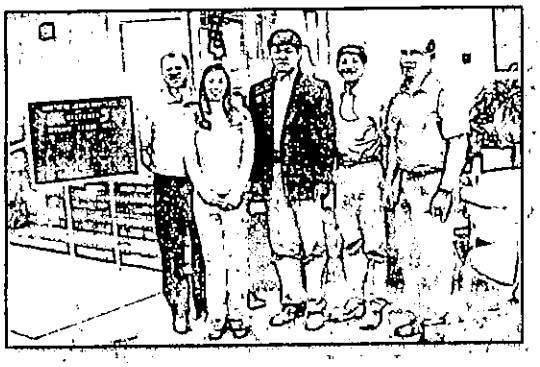
China... Officials from Liaoning Province, China, visited NCI to learn more about our region's agriculture. They visited with NCI Director Pat Berglund, who briefed them on the educational and technical services at NCI. The team was escorted by Dr. Brady Vick, research leader in sunflowers for the USDA Labs at NDSU.

Chile...A group of Chilean farmers toured NCI in August. They were seeking information on crop production, grain quality, and farm equipment to add value to their production.

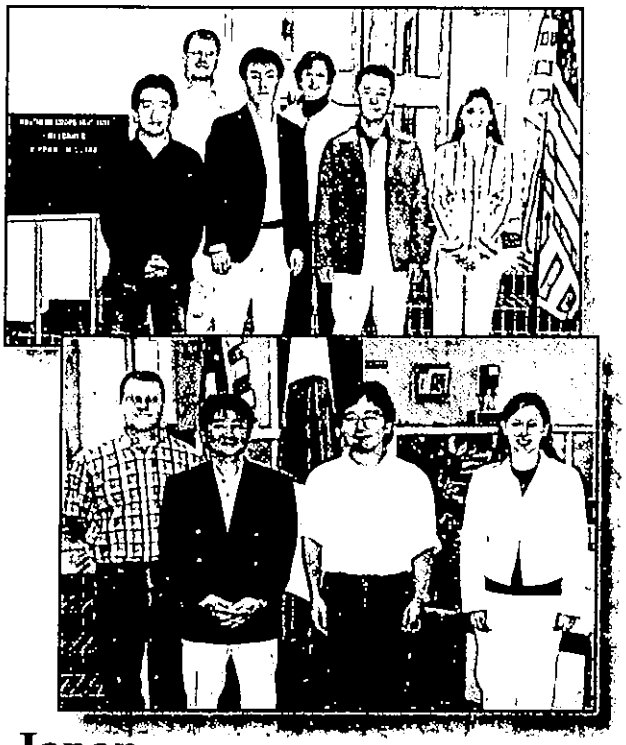


Taiwan...A six-member Feed Grains Buyer Team from Taiwan came to the Midwest where Dr. Kim Koch of NCI (second from left) joined them for a meeting in Sioux Falls, S.D. The team was sponsored by U.S. Feed Grains Council and escorted by Clover Chang, (far right), Assistant Director, USGC Taiwan. The purpose of the trip was to introduce the team to the reliable supply and stable quality of U.S. grains and DDGs and the dependable inspection system of U.S. grains.

Nigeria...A delegation from Nigeria met with several faculty and staff from the NDSU College of Agriculture to explore how NDSU might assist Nigeria in agriculture. They toured NCI and livestock research facilities, hosted by Dr. Bob Harrold, Assistant Dean for Academic Programs, NDSU College of Agriculture, (second from left), and NCI's Kim Koch, (third from right).



Japan...A team from Nisshan Flour Mills came to the NCI in September to learn more about the 2006 wheat crop. They were hosted by the North Dakota Wheat Commission.

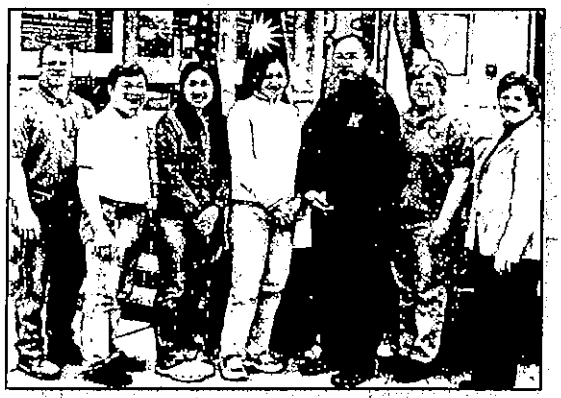


Japan... Two teams from Nippon Flour Mills came to NCI in September and October to learn more about the quality of the 2006 wheat crop. They were hosted by Erica Peterson, North Dakota Wheat Commission, and NCI Technical Director Brian Sorenson.

Sweden... Paul Vighagen, (standing), grain buyer for Lilla Harrie Valskvarn AB Mill in southern Sweden, came back to NCI this summer for a visit. He was a participant in the 2000 Grain Procurement Management short course. He and his wife, Brita, attended the Northern Crops Council dinner in July, where he expressed his appreciation for NCI and the importance of this course to international buyers.

Ecuador...NCI's Dr. Kim Koch spoke at the Central and Latin America Poultry Nutritionists' Roundtable, sponsored by U.S. Grains Council in Quito, Ecuador in October. The meeting was held to educate nutritionists on the use of distillers dried grains (DDGs).

Hong Kong, Korea, Mexico, South Africa, Singapore...U.S. Wheat Associates sponsored several of their international staff on a visit to NCI in May. They came to learn more about the region's wheat and NCI programs. NCI Food Technologist Bonnie Jacobson (right) discusses bread made with different wheat blends.



Malaysia, Thailand and Singapore...
A three-person technical baking team came to NCI to evaluate flour made from U.S., Canadian and Australian wheat. The team was escorted by Roy Chung, bakery consultant for U.S. Wheat Associates, Singapore. See page 12 for full story.

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John Crabtree, Assistant Director
Linda Briggs, Office Manager
Bonnie Jacobson, Food Technologist
Dr. Kim Koch, Feed Production Manager
Pat Limesand, Account Technician
Rilie Morgan, Processing Technician
Sally Sologuk, PR/Communications Specialist
Brian Sorenson, Technical Director
Mehmet Tulbek, Pulse and Oilseed Specialist

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1/15/2007
HB 1020 - Extension Service
#14

Northern Pulse Growers Association

Testimony of Paul Thomas
Northern Pulse Growers Association
House Bill 1020
House Appropriations
Sakakawea Room
January 15, 2007

Chairman Wald, members of the House Appropriations committee, for the record my name is Paul Thomas. I am a farmer from Velva, ND. I also serve as a director on the Northern Pulse Growers Association Board. The Northern Pulse Growers Association represents the pea, lentil and chickpea growers and processors throughout North Dakota and Montana. I am here to provide testimony in support of HB 1020 and to comment specifically on the impact of the bill on pulse crop producers of North Dakota.

Over the past decade, pulse crop acres have substantially increased throughout North Dakota. In 2000 North Dakota planted 125,000 acres and in 2006 over 750,000 acres of peas, lentils and chickpeas. The pulse industry in North Dakota ranks number one in the nation in production of pulse crops with over 50% of the US production. The expansion of acres over the last several years has created many needs and opportunities in the area of research.

The initiative and efforts by the NDSU research and extension centers located around the state have had a major impact on the development of the pulse industry in this region. Issues such as weed and disease management, seeding depth, seeding rates, harvest timings, feeding trials, and inoculant use are a short list of issues that the research community in this state has addressed. These research and extension efforts have allowed producers to maximize their production and profitability. In addition to research the extension service has been instrumental in working with and educating producers through meetings, publications and summer tours on the production of pulse crops. The education of producers and industry members has been instrumental to the successful growth of this industry.

One of the top priorities for pulse crop producers in North Dakota is a variety development program at North Dakota State University. Currently the United States has a public pulse crop breeding program located at the USDA/ARS research center in Pullman Washington. In the recent past there has been collaboration between the USDA/ARS breeders and North Dakota State University in testing and screening for varieties that are suited for North Dakota growing conditions. As the industry has grown, the demand for varieties that address specific issues such as disease resistance has grown beyond the capability of the current working relationship between the USDA/ARS pulse breeding program and North Dakota State University. In addition to the USDA/ARS breeding program, North Dakota producers have utilized varieties developed

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by the Canadian Crop Development Center in Saskatoon Canada. In fact a majority of the lentils and a tremendous amount of peas grown in North Dakota are founded in Canada. In the recent past the CDC and the Saskatchewan Pulse Growers have implemented policy that limits US producers access to pulse crops developed in Canada.

The move to privatize Canadian varieties and the growing needs of North Dakota producers has created a pressing need to develop a pulse crop breeding program in this region. The development of a breeding program in North Dakota will allow North Dakota State University to develop varieties specific to North Dakota growing conditions and to develop varieties that target the specific markets exporters are pursuing. HB 1020 will establish a pulse crop breeder at the NDSU Main Station as well as an assistant breeder/research agronomist at the North Central Research and Extension Center in Minot. Placing the breeder at the NDSU Main Station will allow the position to have access to the facilities and equipment that are critical to a successful breeding program. In addition, we envision the breeder collaboratively working with the pulse crop plant pathologist in addition to working with facilities such as Northern Crops Institute.

The establishment of an assistant breeder/research agronomist at the North Central Research and Extension Center will place the position in the center of North Dakota's pea, lentil and chickpea production region. Currently pulse crop acres are concentrated in the western half of North Dakota and having a position at the North Center Research Extension Center will provide necessary assistance to the breeding program and enhance pulse crop research within the growing region. The assistant breeder will collaborate with the pulse crop breeder in Fargo to screen and select varieties in the pulse growing regions of North Dakota.

In addition to the pulse crop breeding program, the Northern Pulse Growers Association supports the establishment of an area pest management specialist at the Carrington Research Extension Center. The Carrington Research and Extension Center is a key research facility in North Dakota for research on the major diseases that affect many crops within North Dakota. The establishment of the position will have a major impact on North Dakota pulse crop producers in addition to all crops in North Dakota. The position is currently not in the budget but is on the priority list of the State Board of Agriculture Research and Education.

Lastly I wanted to comment on the Northern Pulse Growers support for the State Board of Agriculture Research and Education and the priorities the board has established. Projects ranging from greenhouse construction to scab research, to establishment of waste management specialists will have a major impact on this state and the state's agriculture economy. SBARE has done a tremendous job meeting the needs of North Dakota producers.

Chairman Wald and committee members, I urge you to support HB 1020 and more specifically the pulse crop breeding program for North Dakota State University. I will try to answer any questions you have.

Handout #18 1/15/2007
HB 1020 Extension Service

Northern Pulse Growers Association

Testimony of Eric Bartsch
Northern Pulse Growers Association
House Bill 1020
House Appropriations
Sakakawea Room
January 15, 2007

Chairman Wald, members of the House Appropriations committee, for the record my name is Eric Bartsch and I am the Executive Director of the Northern Pulse Growers Association. The Northern Pulse Growers Association represents the pea, lentil and chickpea growers and processors throughout North Dakota and Montana. I am here in support of HB 1020 and I am going to specifically comment on the impact of the Northern Crops Institute on the pea, lentil and chickpea industry in this region.

On behalf of the Northern Pulse Growers Association I would like to thank the North Dakota legislature for establishing the Crop Quality Promotion Specialist during the 2005 legislative session. The establishment of the position has had a major impact on the pulse crop industry and our ability to expand and create markets domestically and internationally. Over the past several years the Northern Pulse Growers have been exploring the market strategy of utilizing pulse crops and their components as an ingredient in existing manufactured foods or new food products. The Northern Crops Institute has been working with major food and feed manufactures around the United States to utilize pulse crops and their components as food or feed ingredients. The result of NCI's work has been tremendous and will have a major impact on this state by creating value added opportunities for North Dakota producers and the agriculture industry. NCI has utilized pulse crops to create products such noodles and tortillas which offer a taste and nutritional balance that is attractive to today's consumers and food manufacturers.

As the pulse industry expands, the involvement of the Northern Crops Institute will be instrumental to the successful growth and development of the industry. NCI offers the expertise and facilities that can meet the needs of major food manufactures around the world. In the spring and summer of 2007 the Northern Pulse Growers Association and the US Dry Pea and Lentil Council will be hosting two teams of noodle manufactures from Southeast Asia, which will participate in a course at NCI on producing noodles with pulse crops. Again, NCI will have a major impact on our ability to influence potential buyers to merchandise US peas, lentils and chickpeas, which provide the highest quality for their operations.

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As the pulse crop industry moves forward we envision an expanding role for the Northern Crops Institute in the pulse crop industry. One of the biggest needs for the pulse crop industry is an understanding of quality specification of pulse crops grown in this region. The addition of the crop quality promotion specialist at NCI gives the Institute the ability and needed tools to conduct quality tests on North Dakota grown pulse crops. Understanding component levels such as protein, starch and fiber will give the pulse crop industry needed information to effectively market North Dakota pulse crops world-wide.

Chairman Wald and committee members, I urge you to support HB 1020 and more specifically the Northern Crops Institute budget. I would be happy to answer any questions you may have.

(5)

Northern Pulse Growers Association

Testimony of Eric Bartsch
Northern Pulse Growers Association
House Bill 1020
Senate Appropriations
Harvest Room
March 1, 2007

Chairman Holmberg, members of the Senate Appropriations Committee, for the record my name is Eric Bartsch and I am the Executive Director of the Northern Pulse Growers Association. The Northern Pulse Growers Association represents the dry pea, lentil and chickpea growers and processors throughout North Dakota and Montana. I am here to provide testimony in support of HB 1020 and to comment specifically on the impact of the bill on pulse crop producers of North Dakota.

Over the past decade, pulse crop acres have substantially increased throughout North Dakota. In 2000 North Dakota planted 125,000 acres and in 2006 over 750,000 acres of peas, lentils and chickpeas. The pulse industry in North Dakota ranks number one in the nation in the production of pulse crops with over 50 percent of the US production. The expansion of acres over the last several years has created many needs and opportunities in the area of research.

The initiative and efforts by the NDSU research and extension centers located around the State have had a major impact on the development of the pulse industry in this region. Issues such as weed and disease management, seeding depth, seeding rates, harvest timings, feeding trials, and inoculant use are a short list of issues that the research community in this state has addressed. These research and extension efforts have allowed producers to maximize their production and profitability. In addition to research, the extension service has been instrumental in working with and educating producers through meetings, publications and summer tours on the production of pulse crops. The education of producers and industry members has been instrumental to the successful growth of this industry.

One of the top priorities for pulse crop producers in North Dakota is a variety development program at North Dakota State University. Currently the United States has a public pulse crop breeding program located at the USDA/ARS research center in Pullman Washington. In the recent past there has been collaboration between the USDA/ARS breeders and North Dakota State University in testing and screening for varieties that are suited for North Dakota growing conditions. As the industry has grown, the demand for varieties that address specific issues such as disease resistance has grown beyond the capability of the current working relationship between the USDA/ARS pulse breeding program and North Dakota State University. In addition

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to the USDA/ARS breeding program, North Dakota producers have utilized varieties developed by the Canadian Crop Development Center in Saskatoon Canada. In fact, a majority of the lentils and a tremendous amount of peas grown in North Dakota were founded in Canada. In the recent past the CDC and the Saskatchewan Pulse Growers have implemented policy that limits US producers access to pulse crops developed in Canada.

The move to privatize Canadian varieties and the growing needs of North Dakota producers has created a pressing need to develop a pulse crop breeding program in this region. The development of a breeding program in North Dakota will allow North Dakota State University to develop varieties specific to North Dakota growing conditions and to develop varieties that target the specific markets exporters are pursuing. HB 1020 will establish a pulse crop breeder at the NDSU Main Station as well as an assistant breeder/research agronomist at the North Central Research and Extension Center in Minot. Placing the breeder at the NDSU Main Station will allow the position to have access to the facilities and equipment that are critical to a successful breeding program. We envision the breeder collaboratively working with the pulse crop/dry bean plant pathologist in addition to working with facilities such as Northern Crops Institute.

The establishment of an assistant breeder/research agronomist at the North Central Research and Extension Center will place the position in the center of North Dakota's pea, lentil and chickpea production region. Currently pulse crop acres are concentrated in the western half of North Dakota and having a position at the North Center Research Extension Center will provide necessary assistance to the breeding program and enhance pulse crop research within the growing region. The assistant breeder will collaborate with the pulse crop breeder in Fargo to screen and select varieties in the pulse growing regions of North Dakota.

In addition to the pulse crop breeding program, the Northern Pulse Growers Association supports the establishment of an area pest management specialist at the Carrington Research Extension Center. The Carrington Research and Extension Center is a key research facility in North Dakota for research on the major diseases that affect many crops within North Dakota. The establishment of the position will have a major impact on North Dakota pulse crop producers in addition to all crops in North Dakota. The position is currently not in the budget but is on the priority list of the State Board of Agriculture Research and Education.

Lastly, the Northern Pulse Growers Association urges you to support the reinstatement of the $2 million for greenhouse construction which would bring the total appropriation to the originally requested $9 million. Construction of new and state of the art green house facilities would enhance agriculture research at North Dakota State University. It is important to have adequate facilities to conduct the highest quality research which is vital to the success of agriculture research in this state and region.

Chairman Holmberg and committee members, I urge you to support HB 1020 and more specifically the pulse crop breeding program for North Dakota State University. I will be happy to answer any questions you have.

Testimony
North Dakota State Soil Conservation Committee
House Bill 1020
Senate Appropriations Committee
Chairman Ray Holmberg
March 1, 2007

Chairman Holmberg and Members of the Senate Appropriations Committee, my name is Tom Christensen. 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 $630,000 appropriated to 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 included 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 51 applications from soil conservation districts requesting $1,147,900 for the 2007-2009 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 Holmberg and Members, Thank you for your support.

Mr. Chairman and members of the Committee,

Thank you for the opportunity to testify today.

My name is Jim Teigen. I farm near Rugby, and I have been a supervisor on the Pierce County Soil Conservation District Board since 1992. I am here to ask for support for funding for the ND State Soil Conservation Committee portion of the budget.

The majority of the State Committee's budget is allocated for the District Assistance Grant Program, and HB 1020 again proposes $630,000 for the District Assistance Grant Program. In previous years, this money has been distributed by the Committee on the basis of an application process, and has provided financial assistance to just over half of the districts which have applied. Those grants have often made the difference between whether a district just existed or was able to carry out a meaningful soil conservation program.

Unfortunately, some of these districts which have not received grants have been limited because of the inability to provide enough employees and programs to meet the needs of their producers.

Other revenue sources for districts come from the authority to levy a 1 mill tax, and from providing services such as tree planting, weed control in trees, custom seeding with no-till drills, clipping CRP grass stands, soil testing, transplanting trees, selling deer repellent for trees, and sealing abandoned wells. Many of these services have been added because federal programs are not providing cost-sharing for many new tree plantings, which has typically been the mainstay of most districts' funding.

While the programs offered by districts varies across the state, so does the opportunity to obtain financial resources. The amount of money raised by 1 mill varies from just over $2000 per year in the district with the lowest valuation to over $350,000 in the district with the highest. As you might suspect, the districts with the lowest tax bases are usually also the districts with the lowest populations, therefore having the least opportunity to earn income through sales. For those districts, it is a real struggle just to keep an office open, and some are able to maintain only a part-time clerk in their office.

My district is one of those which has received grant funds only during this past biennium, when the Natural Resources Conservation Service was able to provide some matching funds to the State Committee's Grant Program. The NRCS matching funds enabled the Committee to provide assistance to every district in ND that applied. While the funds were very welcome, they did not come without the stipulation that those funds were only eligible for use for technical assistance to producers for a government program. So, while the district was able to keep a technician employed all year, much of that work was to assist NRCS and didn't necessarily relate to programs the district may have wanted to accomplish as a part of its locally determined work plan. Those NRCS funds also were not available for use in supporting district clerks in their day-to-day work.

To make matters even more difficult, the uncertainty of the Federal budget has not allowed a decision whether those federal funds will even be available for 2007 and beyond.

So, districts like Pierce County are trying to balance budgets for 2007 without the availability of extra money. Our employees are usually below the salary levels of persons in similar employment, and most have no benefits or retirement plans. In order to balance our budget this year, Pierce County SCD had to eliminate any plans to replace equipment, which will likely result in higher repair bills.

We are requesting an additional allocation for the State Committee's budget to allow the Committee to provide additional assistance to districts across North Dakota. Perhaps it will provide grant money for a few more districts, perhaps it will enable each district to have at least one full-time employee, but it will help North Dakota's 55 Soil Conservation Districts provide education, technical assistance, and conservation programs to the stewards of our natural resources.

Thank you for your consideration.

ND STATE SOIL CONSERVATION COMMITTEE
SOIL CONSERVATION DISTRICT ASSISTANCE PROGRAM

(7)

A major responsibility of the State Soil Conservation Committee is to distribute the Soil Conservation District Assistance Program (SCDAP) grant monies allocated by the North Dakota Legislative Assembly. These monies are awarded biennially on a competitive basis to the 55 soil conservation districts in North Dakota.

PROGRAM OBJECTIVE:

To promote soil, water and plant health through reduced damage to North Dakota agricultural land from wind and water erosion. The program will promote tree plantings. The program focuses on cropland and rangeland. **Goals will be met by providing funds to support staff in the soil conservation districts.**

PROGRAM CRITERIA:

1. Number of acres to be adequately protected and the best management practices used to accomplish
2. Natural Resources Conservation Service and District personnel presently working in the district
3. Inability of a district to financially contribute to the program
4. Past accomplishments of the district participating in the program
5. Is the district request based on the workload needs identified

SERVICES PROVIDED:

District staff is employed through this program to work directly with farmers and ranchers in planning and installing best management practices. Districts place emphasis on conservation practices that maintain adequate vegetative cover or residue to protect lands from wind and water erosion. District staff funded by the grants will work with the NDSU Extension Service, the Natural Resources Conservation Service and other agencies to promote conservation practices and information. Practices reported by districts that have effectively reduced the damages of wind and water erosion include the following:

Cropping systems	Pastureland management plans	Tree planting	Residue management
Grazing systems	Renovating windbreaks	Crop Rotations	Water distribution plans
Living snow fences	Cover crops	Riparian work	Weed control programs
Conservation tillage	Water development	Wildlife habitat	Grass waterways
Sealing abandoned wells	Conservation Planning	Soil health and quality	Livestock waste mgt

FEATURES:

The funding level for a joint district application is $35,000. The maximum amount a single district can apply for is $25,000. The requested funds are used for salaries and fringe benefits of district staff. The local soil conservation district supervisors are responsible for matters related to the employment. This allows local decision-making and leadership in the program. All funds appropriated are allocated to soil conservation districts.

SCDAP Funding History

	83-85	85-87	87-89	89-91	91-93	93-95	95-97	97-99	99-01	01-03
SCD requests	41	50	49	46	50	49	51	51	51	42
SCD grants	22	35	13	29	33	31	29	26	24	26
Appropriation	$425,000	825,000	286,123	690,251	745,386	745,386	500,000	580,000	580,000	580,000
SCDs requested	$802,500	1,139,460	1,078,300	1,002,750	1,175,500	1,095,000	1,034,000	1,019,640	1,084,750	960,343

	03-05	05-07	07-09
SCD requests	43	52	51
SCD grants	23	26	
Appropriation	$580,000	630,000	
SCDs requested	$985,500	1,235,500	1,147,900

The success of the SCDAP is vital to the soil conservation districts in North Dakota. The soil conservation districts request for funds has averaged $1,058,550 per biennium. The Legislative appropriations have fluctuated from a low of $286,123 to a high of $825,000. The State Soil Conservation Committee would like to see additional state assistance provided to the soil conservation districts through the SCDAP.

(8)

TESTIMONY FOR HB 1020

Mr. Chairman and members of the Committee, my name is Richard Faught, I live at Amenia, North Dakota, and I am President of the North Dakota Association of Soil Conservation Districts. We are an association of the 55 Soil Conservation Districts across North Dakota. Soil Conservation Districts exist as political subdivisions which assist local producers with various conservation practices designed to enhance and sustain their soil and water resources into the future. Maintaining and enhancing agricultural producers' soil and water productivity are vital to their survival. Erosion control, both wind and water, has been a primary concern of Soil Conservation Districts over the years, but soil health and water quality have also become strong issues for our activities. Our local boards of supervisors are individuals (usually farmers and ranchers) who determine the activities of their individual district, reflecting needs unique to that area.

The State Soil Conservation Committee administers a Soil Conservation District Assistance program to the SCD's to assist them in providing technical assistance to producers seeking this help in establishing conservation measures on their lands. The Committee's budget for this resides within the NDSU Extension Service budget as a line item. This reflects flat funding from the 2005 biennium. We have sought an increase to this line item in the Governors budget and on the House side to address the following needs.

A. Many districts are under funded due to the low amount they collect from their 1 mill levy. They rely heavily on the Soil Conservation District Assistance Program to enable them to provide any assistance at all to their area producers. The additional monies requested would allow several more districts to participate. In addition to conservation planning, design, application, and checkout, the SSCC application form now allows for administrative costs to be covered by the program, something SCD's have requested. In some cases, the administrative activities were a stumbling block in the process because of lack of funding for administrative time, critical to allow on the ground activities to occur. The grants allow local dollars to be leveraged to provide for more administrative activity.

B. The SCD's work closely with the Natural Resources Conservation Service (NRCS) to accomplish their mission. This has allowed some cost savings to the SCD's in some cases. However, with federal efforts toward cost cutting and efficiencies within agencies, the SCD's will be losing some of these benefits. This means greater costs at a point in time where many are struggling to adequately address their local demands.

We continue to see a global, national, and statewide shift to addressing natural resource concerns. The front line local technical expertise to help residents deal with these concerns is the Soil Conservation Districts and demands on them will continue to grow with this shift. This request to augment the State Soil Conservation Committee budget will help to meet these changes.

	University	National Projects	Dollars	State Projects	Dollars	Total Dollars
			$8,923,784.00		$1,596,204.00	$10,519,988.00
1	Kansas State		$1,100,861.00		$311,374.00	$1,412,235.00
2	Colorado State		$1,039,942.00			$1,039,942.00
3	[redacted]ahoma State		$922,454.00			$922,454.00
4	[redacted]niv of Illinois		$886,463.00			$886,463.00
5	Univ of Arkansas		$190,000.00		$471,333.00	$661,333.00
6	Univ of Calif.-Davis		$597,651.00			$597,651.00
7	Univ of Nebraska		$330,954.00		$138,872.00	$469,826.00
8	Univ of Wisconsin		$418,126.00			$418,126.00
9	Univ of Florida		$306,969.00		$59,175.00	$366,144.00
10	Texas A & M		$292,342.00		$67,995.00	$360,337.00
11	Texas Tech		$311,823.00		$30,631.00	$342,454.00
12	Baylor		$267,531.00			$267,531.00
13	Washington State		$251,263.00			$251,263.00
14	Northeastern Univ		$199,855.00			$199,855.00
15	Univ of Missouri-Columbia		$37,095.00		$161,602.00	$198,697.00
16	New York Institute		$170,063.00			$170,063.00
17	Texas Ag Exp. Station		$168,270.00			$168,270.00
18	Univ of Idaho				$161,160.00	$161,160.00
19	Ohio State		$158,637.00			$158,637.00
20	Univ of Georgia		$150,500.00			$150,500.00
21	Medical College of Ohio		$140,405.00			$140,405.00
22	Iowa State		$119,332.00		$12,863.00	$132,195.00
23	South Dakota State		$112,500.00			$112,500.00
24	Montana State		$106,975.00			$106,975.00
25	Penn State		$104,513.00			$104,513.00
26	Colorado School of Med.		$98,561.00			$98,561.00
27	Univ of Minnesota				$89,510.00	$89,510.00
28	Univ of Kentucky		$89,057.00			$89,057.00
29	Univ of Wyoming		$88,950.00			$88,950.00
30	[redacted]iv of Conn.		$74,387.00			$74,387.00
31	[redacted]h State		$55,050.00			$55,050.00
32	Univ of Missouri				$52,314.00	$52,314.00
33	Purdue		$48,359.00			$48,359.00
34	West Texas A & M		$21,875.00		$19,375.00	$41,250.00
35	UCLA		$35,941.00			$35,941.00
36	Mississippi State		$10,960.00		$20,000.00	$30,960.00
37	Clemson		$16,120.00			$16,120.00

USDA/ARS 1,715,328

11 Indep. firms 1,377,771

Food Safety Net Services 1,006,557

4,099,656

TOTAL 14,619,644

Market Research 1,102,631

GRAND TOTAL $15,722,275

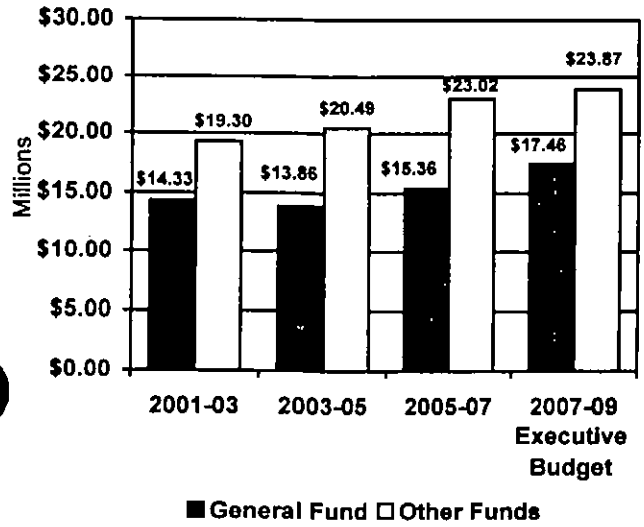
Department 630 - NDSU Extension Service
House Bill No. 1020

	FTE Positions	General Fund	Other Funds	Total
2007-09 Executive Budget	257.86	$17,456,831	$23,865,624	$41,322,455
2005-07 Legislative Appropriations	256.86 [1]	15,358,146 [2]	23,021,591	38,379,737
Increase (Decrease)	1.00	$2,098,685	$844,033	$2,942,718

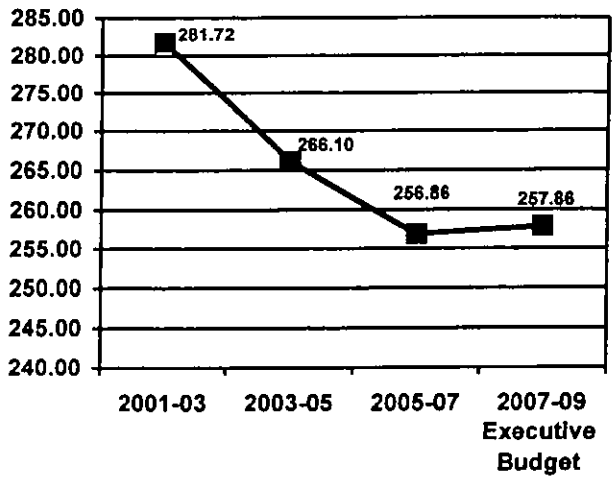
[1]The 2005-07 appropriation is based on 266.1 FTE positions. Section 6 of Senate Bill No. 2020 (2005) authorizes the State Board of Higher Education to adjust FTE positions as needed. A total of 9.24 positions were reduced pursuant to this section.

[2]The Main Research Center allocated $66,000 of general fund appropriation to North Dakota State University Extension Service for critical needs. Section 5 of Senate Bill No. 2020 (2005) authorizes that upon approval of the State Board of Agricultural Research and Education and appropriate branch research directors, the director of the Main Research Center may transfer appropriation authority within the North Dakota State University Extension Service, Northern Crops Institute, Main Research Center, and branch research centers.

Agency Funding



FTE Positions



Executive Budget Highlights

	General Fund	Other Funds	Total
1. Adds funding for 1 FTE engineering faculty position ($203,148) and operating expenses for bioproducts educational efforts	$302,500		$302,500
2. Adds funding for an operating expense and equipment pool	$100,000		$100,000
3. Adds funding for temporary salaries for students to monitor for scab and other pests in various production regions of the state	$50,000		$50,000
4. Maintains funding for soil conservation committee grants at $630,000			$0

Other Sections in Bill

Section 4 of House Bill No. 1020 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 NDSU Extension Service is appropriated for the purpose designated in the act, grant, gift, or donation for the 2007-09 biennium.

Section 5 of House Bill No. 1020 authorizes the transfer of appropriation authority between the Main Research Center, the branch research centers, NDSU Extension Service, and Northern Crops Institute.

Section 6 of House Bill No. 1020 authorizes the State Board of Higher Education to adjust or increase full-time equivalent positions for the NDSU Extension Service and report any adjustments to the Office of Management and Budget.

Section 7 of House Bill No. 1020 authorizes the carryover of any unexpended general fund appropriation and excess income received by the NDSU Extension Service.

Continuing Appropriations

No continuing appropriations for this agency

Major Related Legislation

At this time, no major legislation has been introduced affecting this agency.

Prepared by the North Dakota Legislative Council staff for Senate Appropriations
February 26, 2007

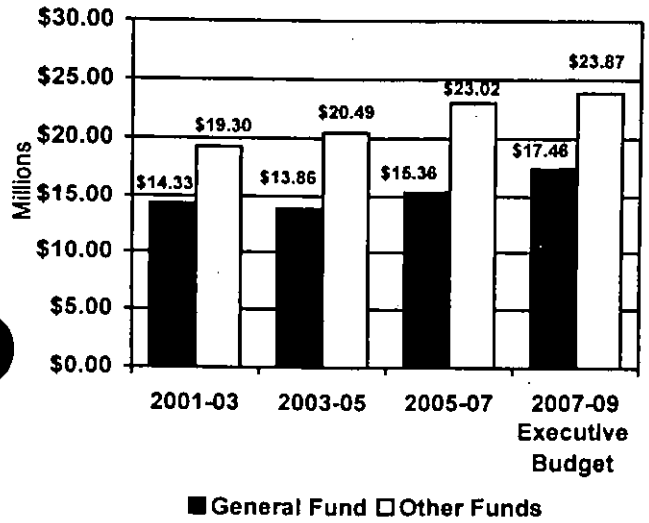
Department 630 - NDSU Extension Service
House Bill No. 1020

	FTE Positions	General Fund	Other Funds	Total
2007-09 Executive Budget	257.86	$17,456,831	$23,865,624	$41,322,455
2005-07 Legislative Appropriations	256.86 [1]	15,358,146 [2]	23,021,591	38,379,737
Increase (Decrease)	1.00	$2,098,685	$844,033	$2,942,718

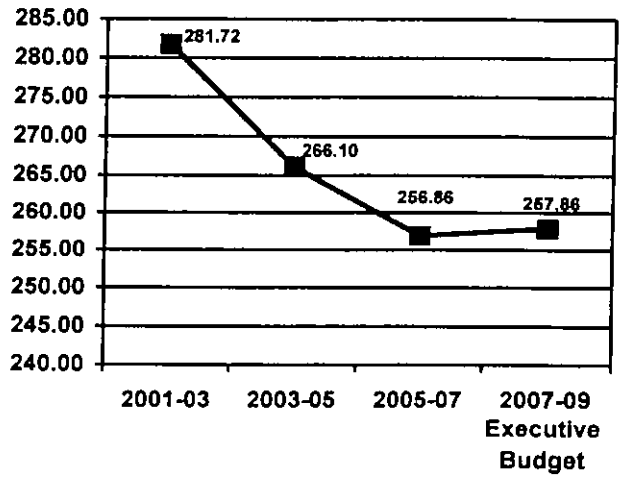
[1]The 2005-07 appropriation is based on 266.1 FTE positions. Section 6 of Senate Bill No. 2020 (2005) authorizes the State Board of Higher Education to adjust FTE positions as needed. A total of 9.24 positions were reduced pursuant to this section.

[2]The Main Research Center allocated $66,000 of general fund appropriation to North Dakota State University Extension Service for critical needs. Section 5 of Senate Bill No. 2020 (2005) authorizes that upon approval of the State Board of Agricultural Research and Education and appropriate branch research directors, the director of the Main Research Center may transfer appropriation authority within the North Dakota State University Extension Service, Northern Crops Institute, Main Research Center, and branch research centers.

Agency Funding



FTE Positions



First House Action

Attached is a summary of first house changes.

Executive Budget Highlights

	General Fund	Other Funds	Total
1. Adds funding for 1 FTE engineering faculty position ($203,148) and operating expenses for bioproducts educational efforts	$302,500		$302,500
2. Adds funding for an operating expense and equipment pool	$100,000		$100,000
3. Adds funding for temporary salaries for students to monitor for scab and other pests in various production regions of the state	$50,000		$50,000
4. Maintains funding for soil conservation committee grants at $630,000			$0

Other Sections in Bill

Section 4 of Engrossed House Bill No. 1020 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 NDSU Extension Service is appropriated for the purpose designated in the act, grant, gift, or donation for the 2007-09 biennium.

Section 5 of Engrossed House Bill No. 1020 authorizes the transfer of appropriation authority between the Main Research Center, the branch research centers, NDSU Extension Service, and Northern Crops Institute.

Section 6 of Engrossed House Bill No. 1020 authorizes the State Board of Higher Education to adjust or increase full-time equivalent positions for the NDSU Extension Service and report any adjustments to the Office of Management and Budget.

Section 8 of Engrossed House Bill No. 1020 authorizes the carryover of any unexpended general fund appropriation and excess income received by the NDSU Extension Service.

Continuing Appropriations

continuing appropriations for this agency.

Major Related Legislation

Senate Bill No. 2288 - This bill provides for a biomass energy center consisting of a multidisciplinary group led by the North Dakota Agricultural Experiment Station and North Dakota State University Extension Service to conduct research and provide education relating to biomass production and conversion. Section 5 of the bill provides that House Bill No. 1020 (2007) includes $300,000 for the North Dakota State University Extension Service to support the activities of the perennial biomass production initiative at the biomass energy center.

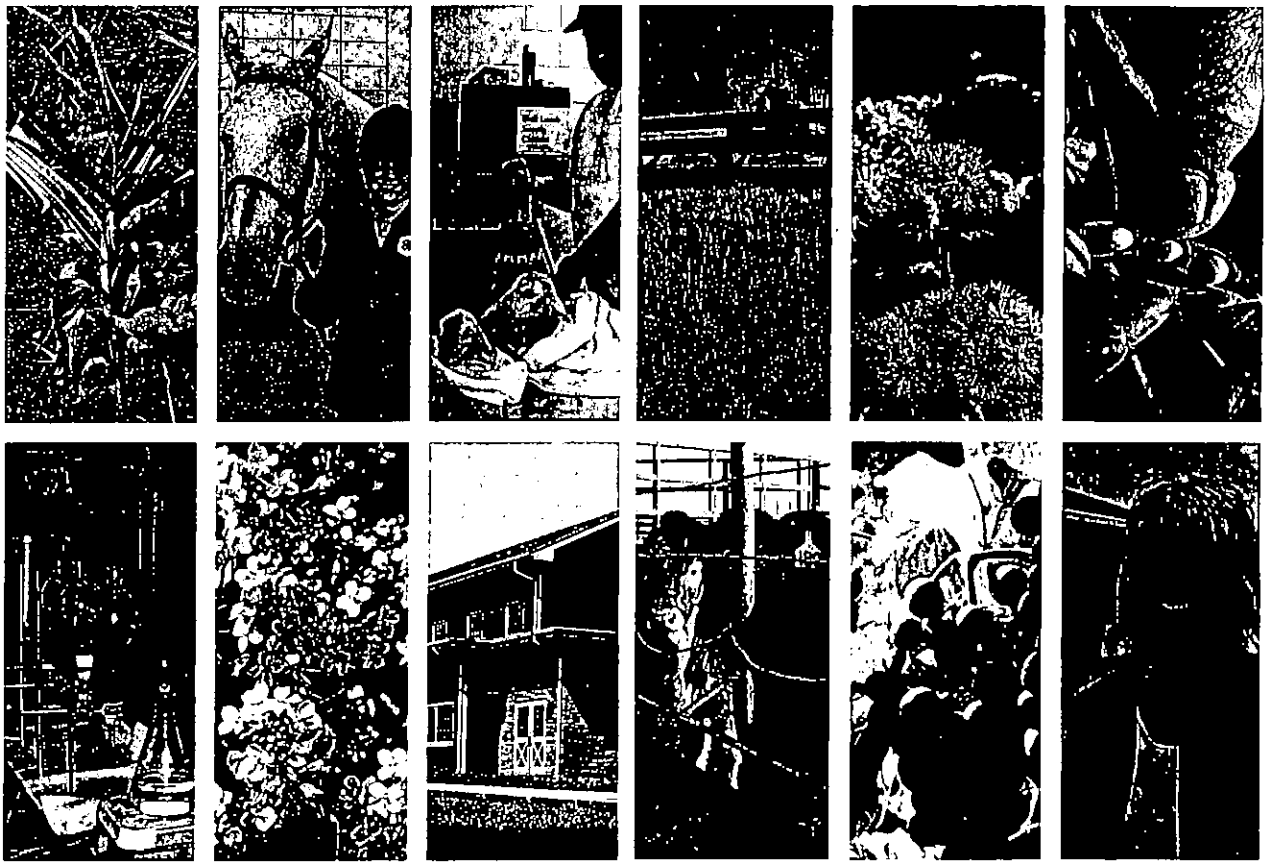
ATTACH:1

January 15, 2007
HB 1020
Handout #1

NDSU Agriculture and University Extension
BIENNIAL BUDGET

NORTH DAKOTA STATE UNIVERSITY

2007-2009



HB 1020

NDSU Extension Service - Budget No. 630
North Dakota Agricultural Experiment Station
- Main Research Center - Budget No. 640
- Branch Research Centers - Budget No. 628

Joseph A. Chapman – President, North Dakota State University
Jerry Effertz – 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
Blaine Schatz – Director, Carrington Research Extension Center
Jay Fisher – Director, North Central Research Extension Center
Jerry Bergman – Director, Williston Research Extension Center
Paul Nyren – Director, Central Grasslands Research Extension Center
Randy Mehlhoff – Director, Langdon Research Extension Center
Chris Schauer – Director, Hettinger Research Extension Center
Tom Teigen – Director, Agronomy Seed Farm

House Appropriations Committee
EDUCATION & ENVIRONMENT DIVISION
Representative Francis J. Wald, Chairman

8:30 a.m.
Monday, January 15, 2007

www.ndsu.edu/legislators

Grow 21:

Enhancing North Dakota's Economy Through Agriculture

The Concept

North Dakota's agriculture is an amazing success story. Through the years, the programs conducted by the North Dakota Agricultural Experiment Station and NDSU Extension Service at North Dakota State University have provided technology and knowledge that have supported the efforts of North Dakota's farmers, ranchers, and agribusinesses. NDSU is committed to continue these efforts.

In the coming years, agriculture and rural communities in the United States and North Dakota face serious challenges. Agriculture has become increasingly efficient and fewer farmers are producing larger quantities of products. A recent study by the American Farm Bureau Federation notes that, in the nation, 143,000 farming operations produce more than 75% of the value of all agricultural output, with 2 million operations producing the remainder. This study also points out that 89% of farm family income is derived from off-farm sources. The report states, "Rural America, and agriculture's role in it, is evolving such that now, farming is more dependent on rural communities than rural communities are dependent on farming."

Agriculture will remain an important underpinning of North Dakota's economy; however, it is vital for the future of agriculture in this state that we find and support additional economic opportunities in rural areas that build on the great productivity of the land and the creativity of our farmers and ranchers. The North Dakota Agricultural Experiment Station and the NDSU Extension Service are well positioned to conduct research into additional opportunities and to provide educational and other services to citizens throughout the state.

A beginning question that we have posed in rural areas is, "Do you want more people here?" The answer over and over has been a resounding "Yes." Repeatedly, people talk about wanting thriving communities comprised of citizens of all ages.

To address these issues, we have met with numerous organizations and individuals throughout North Dakota. Additionally, we have drawn on the knowledge and expertise of the faculty and staff of the Experiment Station and Extension Service who are located throughout the state. We asked that participants in all of these discussions imagine what they would desire for North Dakota in 2025.

Through these discussions, we have begun to understand that 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.

NDSU
NDSU Extension Service
North Dakota Agricultural Experiment Station

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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. There are significant opportunities to add value to raw products; new enterprises to explore; new markets to develop; renewable energy and bioproducts to be developed; 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 broad band 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. In order to improve our capacity to serve North Dakota, the infrastructure capacity of the NDAES and the 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 the 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. In many North Dakota communities, there is a desire to have a bright future, but presently, there is not 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.

The North Dakota Agricultural Experiment Station and the NDSU Extension Service, with the support of SBARE, will be assertive in seeking ways to enhance North Dakota's economy, especially those industries that are tied to agriculture and natural resources. Essential to success are faculty and staff who are well trained, feel they are making a difference, and who are recognized for their outstanding work. Also essential are facilities and equipment that allow the faculty and staff to excel in their activities.

Our faculty and staff have become increasingly successful in garnering grants that support their activities on behalf of North Dakota's citizens — those efforts will continue aggressively. We will continue to work with organizations in the state that invest through the use of self-assessment (often called "check-off" funds). We will seek gifts from organizations, foundations, and individuals who share our commitment to be successful in these endeavors. We will continue developing partnerships with private and public sector organizations. We will be tireless in all of these efforts.

We also seek investment by the citizens of North Dakota to help assure that we have and are able to retain faculty and staff of the highest caliber, and that they have the necessary tools to serve the citizens of the state. Such investments pay off handsomely and allow us to speak from a position of strength in seeking the additional support from many sources as noted above.

These initiatives hold the potential for enhancing 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 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 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 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 June 14, 2006. 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

Areas that need continuing emphasis and new areas to be addressed include bioproducts and bioenergy development; youth development through expanded 4-H efforts in agriculture, natural resources, and adult and youth partnerships; community and rural leadership development; identifying and integrating new development and marketing opportunities/technologies for agricultural products; livestock industry expansion (dairy, swine, beef and sheep); assisting land managers with multiple land-use opportunities; and parent education through parenting resource centers.

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NDSU Extension Service

Impacts of Reinvesting in Critical Areas

■ Operating Inflation

The $114,990 Extension received for operating inflation was used to offset the increasing costs associated with travel. While electronic technology, such as audio and videoconferencing, increasingly is being used for program planning and committee work, face-to-face in-service training for county Extension agents is preferred to maintain a well-trained, cutting-edge work force throughout the state.

■ North Dakota State Soil Conservation Committee

The $50,000 received for the North Dakota State Soil Conservation Committee was used to meet the technical assistance needs of Soil Conservation Districts. The funding enabled the districts to assist landowners with soil erosion prevention; water quality improvement; and the enhancement of grazing lands, tree plantings and wildlife habitat. Soil Conservation Districts also used these funds as match for Section 319 funding of the Clean Water Act Non-Point Source program.

■ Operating and Equipment

The State Board of Agricultural Research and Education allocated to the NDSU Extension Service $66,000 of the $200,000 pool received for NDSU Agriculture operating and equipment needs. Extension used these funds to replace the highest priority computer hardware that no longer met the information technology baseline established by the NDSU Agriculture Information Technology Advisory Group. The baseline was developed to ensure cost efficiency by replacing computers that no longer meet a standard in computing, rather than replacing them on a predetermined replacement cycle. These operating funds also were used to provide programming support for new and emerging programs, such as "Building Community Vitality Through the Cultural Arts" program, and providing limited technical assistance to small businesses and manufacturers through the Institute for Business and Industry Development.

NDSU Extension Service

2005-07 Needs-Based Budget

An increase of $8,295,600, or 15 percent over the 2005-07 general fund base, would provide funds to address priorities of the State Board of Agricultural Research and Education and related needs of North Dakota agriculture. The Extension Service is including $3,235,800 (of the $8,295,600) in their optional package.

SBARE ranked all of the projects for Extension, Main Station, and Branch Stations together since a lot of the projects are joint efforts. Please refer to the ranked projects by reviewing the narrative in all of the agencies.

SBARE Ranking **Extension Service $3,235,800**

No. 2 ranked: Bioproducts

$300,000 Total General Fund Increase
($80,000 salary and fringe benefits, .4 new FTE) – engineering faculty
($120,000 salary and fringe benefits, .6 new FTE) – economics faculty
($100,000 operating funds)

An engineering faculty position (60 percent research, 40 percent Extension) will focus on biomass-based systems that hold great potential for becoming the preferred sources for liquid fuels. Educational information regarding the harvest, collection and transport systems for raw products, including crops, crop residues, animal production coproducts, byproducts from food processing, etc., will be provided to clientele. Consumer education regarding the end use of biofuels and other bioproducts also will be provided.

An economics faculty position (60 percent Extension, 40 percent research) will provide clientele with educational information regarding production costs, logistics and market analysis for biobased products. Educational efforts addressing efficient processes for supply chain management and efficient processing strategies also will be undertaken.

No. 2 ranked: Extension Operating and Equipment

$100,000 Total General Fund Increase
($100,000 operating funds)

The NDSU Extension Service has a responsibility to serve the entire state. State specialists at the NDSU campus in Fargo provide program leadership and support to Extension agents and clientele through technology and face-to-face engagement. Technology, travel and other program costs continue to increase. An increase in Extension operating funding is needed to effectively serve the entire state. Equipment funds are needed to address plant diagnostic and other equipment needs.

No. 3 ranked: Scab

$50,000 Total General Fund Increase
($50,000 salaries for students)

Crop scouts (summer work for students under the guidance of Extension personnel) throughout the state will aid in identifying development of scab and other pests in various production regions in the state. Disease development will be monitored and compared to predictive crop models. These highly successful forecasting models continue to be improved as additional information is added to the model.

No. 4 ranked: 4-H Youth Development and Leadership

$550,000 Total General Fund Increase

($350,000 salary and fringe benefits, 2.0 new 4-H FTE)

($200,000 salary and fringe benefits, 1.0 existing leadership FTE)

4-H programs reach more than 40 percent of North Dakota's youth. In many rural areas, 4-H is the only youth program beyond public schools. In addition to developing technical knowledge, 4-H participants gain life skills. Two state specialist positions are essential to ensure that the 4-H program continues to meet the needs of future generations of North Dakota's youth. One position is in the area of agriculture and natural resources programming for youth. This position will interact with numerous faculty members to prepare curricula for use by Extension field staff and volunteers. The other position will develop new programs to help youth become more involved in their communities, and help adults and youth work together more effectively. Development of programs that help youth find effective, positive ways to contribute to their communities while avoid risky behaviors also will be undertaken.

Effective leaders are vital to the success of communities and a growing economy. At times, agricultural commodity groups, rural towns and local units of government have few people willing to step forth to take on leadership roles needed to champion efforts for the future. Our work indicates that there are people who care deeply about the future of their community of place or community of interest, but they do not believe they have the skills or confidence to lead efforts. Through organized community leadership programs such as Rural Leadership North Dakota (RLND) or Horizons, the NDSU Extension Service has demonstrated capacity to prepare emerging agricultural and other rural leaders from throughout the state. These programs help build skills through intensive training seminars, study tours and community projects. The greatest impact comes from participants leading economic and community projects in their own regions. They learn by accomplishing and provide hope for their communities. This request is for the coordinator position. The person in this role will not only oversee the current program, but will work with colleagues and others to develop additional programs to expand local leadership development efforts. This specialist will continue to pursue the support for this program from other private and public sources.

No. 4 ranked: Waste Management

$120,000 Total General Fund Increase

($40,000 salary and fringe benefits, .2 new FTE)

($56,000 salary and fringe benefits, .4 new FTE)

($24,000 operating)

An 80 percent research, 20 percent Extension faculty member in Agricultural and Biosystems Engineering will provide educational support to the North Dakota livestock industry regarding waste management. This includes training Extension agents and other agriculture professionals who help producers adopt best management practices and ensure their operations are in compliance with current regulations. Opportunities to generate revenue from new uses of livestock waste also will be explored.

A 60 percent research, 40 percent Extension waste management specialist at Carrington will work with animal production, feedlot, engineering colleagues and others in developing economical and efficient systems, and providing information to producers and others.

No. 6 ranked: Swine

$150,000 Total General Fund Increase

($120,000 salary and fringe benefits, .6 new FTE)

($ 30,000 operating)

At one point in time, North Dakota produced more than 500,000 market hogs per year and had more than 2,000 producers. Presently North Dakota produces 160,000 market hogs and has 450 producers. However, because of its economic impact, interest in increasing swine production in the state has grown recently. Each dollar of return from pigs marketed turns over 3.49 times for feed, labor, trucking, veterinary service, utilities, etc. This industry needs technical expertise, management assistance and an unbiased resource that can help the state develop its hog industry. A 60 percent Extension, 40 percent research swine specialist is needed to fill this role.

No. 6 ranked: Agricultural Business Development

$420,000 Total General Fund Increase
($320,000 salary and fringe benefits, 2.0 new FTE)
($100,000 operating)

North Dakota has great potential for converting commodities and waste streams into higher-value products. Prospects for whole new industries in renewable energy and bioproducts (such as lubricants, materials and plastics) are particularly appropriate for our state. With the development of new crops and the coproducts of new industries, the state has significant potential for enhanced livestock production and processing. This initiative will support developing new technologies and providing intense business assistance to existing and emerging companies and to entrepreneurs. The two positions will work closely with companies and entrepreneurs in the areas of business planning, marketing, financing, development of strategies, etc.

No. 7 ranked: Livestock Development

$192,000 Total General Fund Increase
($160,000 salary and fringe benefits, .8 new FTE)
($32,000 operating)

Many driving forces support the need for a livestock industry specialist, including the desire of many agricultural producers to grow their existing enterprises and/or diversify their operations, utilization of potential feedstuffs that are presently shipped to other states for their livestock operations, opportunities to enhance production of feedstuffs to service a growing North Dakota industry, use of coproducts emerging from the rapidly expanding bioenergy/bioproducts enterprises as feedstuffs, and utilization of grazing capacity in range and managed areas. An 80 percent Extension, 20 percent research faculty position will focus efforts to help North Dakota livestock industries expand. This will include business planning assistance, working with local units of government on zoning and site issues, assessing the economic potential and providing information that can be used for timely decision making.

No. 7 ranked: Horticulture

$200,000 Total General Fund Increase
($200,000 salary and fringe benefits, 1.0 new FTE)

The annual economic impact of the horticulture industry in North Dakota is approximately $471 million. While most of this impact comes through the ornamental and turf sector, interest in commercial horticulture also is growing. Several areas have identified irrigated high-value crops (horticulture) as a priority economic development opportunity. This industry involves both agricultural and urban clientele, yet horticulture Extension support is limited in western North Dakota. An Extension horticulturist needs to be established to serve western North Dakota.

No. 7 ranked: Pest Management

$32,000 Total General Fund Increase
($32,000 salary and fringe benefits, .2 new FTE)

This 80 percent research, 20 percent Extension area pest management specialist position is critically needed to provide information to area growers affected by crop diseases. The position will be at the Carrington Research Extension Center (REC). The Carrington REC is in the center of great crop diversity and is significantly affected by severe outbreaks of many major diseases.

No. 9 ranked: Multiple Land

$400,000 Total General Fund Increase
($400,000 salary and fringe benefits, 2.0 new FTE)

This natural resource conservation specialist will work closely with the North Dakota State Soil Conservation Committee, the North Dakota Association of Soil Conservation Districts, local soil conservation districts, research and Extension specialists throughout the state, the Natural Resources Conservation Service and others in developing programs to assist farmers and landowners in using science-based land management principles and to seek economic opportunities for multiple land use.

A wildlife specialist is needed to work with North Dakota and federal wildlife agencies and organizations, as well as research and Extension colleagues, to develop programs that address problems and opportunities in multiple land uses, such as coexisting wildlife/livestock systems. Objectives will include development of educational programs and information that will help sustain North Dakota ranches and farms while increasing the appreciation for the contribution of agriculture to wildlife and wildlife habitat, as well as to develop science-based information for wildlife management.

No. 9 ranked: Livestock/Range

$138,000 Total General Fund Increase

($126,000 salary and fringe benefits, .3 for each of the 3 new FTE)

($12,000 operating)

Three livestock/range specialists (70 percent research, 30 percent Extension) will compare whole-systems management of organic, natural, grass-fed and conventional beef production systems, as well as the relationship of these systems to the environment. Educational support leading to the potential adoption of these systems also will be provided. This work also will help determine market causes affecting cattle sales. Feedlot research will focus on evaluating coproduct use for efficient livestock production. One specialist will focus on animal health issues. The specialists will be at the Central Grasslands REC near Streeter, the Hettinger REC and the Main Station.

No. 9 ranked: Parenting

$200,000 Total General Fund Increase

($200,000 salary and fringe benefits support for 5 existing FTEs)

In rural and urban North Dakota communities, parents are working multiple jobs, divorcing at high rates and having difficulty effectively rearing their children. Through a pilot program, the Extension Service has developed parenting resource centers at Bismarck, Dickinson, Fargo and Grand Forks. Each of the centers serves a multicounty region. Collections of materials on effective parenting provide the basis for programs and also can be used for self-study. The impacts of these centers are significant. This request will allow keeping the existing centers up to date and creating an additional center at Minot.

No. 11 ranked: Food Industry

$100,000 Total General Fund Increase

($80,000 salary and fringe benefits, .4 new FTE)

($20,000 operating)

This 60 percent research, 40 percent Extension faculty position will work in the area of enhanced processing of existing and new crops; have expertise in processing/engineering/plant operations; collaborate with colleagues throughout the system to ensure that supply chains, as well as processing, are optimized and provide educational support; and provide technical assistance to existing and emerging food industry businesses.

No. 12 ranked: Sustainable Agriculture

$126,000 Total General Fund Increase

($126,000 salary and fringe benefits, .7 new FTE)

North Dakotans support current production agriculture but also see a need to explore long-term sustainability. The Dickinson REC is exploring new sustainable agricultural opportunities through research and Extension efforts, including coordination of the Professional Development Program sponsored by the USDA Sustainable Agriculture Research and Education Program. These research and Extension programs will help rural North Dakotans develop new sustainable systems to enhance the economic viability of rural areas and to meet their economic, social and environmental needs within a diversified agriculture. Additional support for these efforts is needed, as is a strong program of direct outreach to farmers and ranchers. One 70 percent Extension, 30 percent research sustainable agriculture specialist is needed at Dickinson to provide this support and outreach to southwestern North Dakota.

No. 13 ranked: Web Design and Information Specialists

$32,802 Total General Fund Increase

($32,802 operating)

To effectively utilize the Internet as a source of information for producers and businesses in North Dakota, efficient, user-friendly Web-based information is needed. Continual updates and new training opportunities are needed to carry out this important work. Information design is critical to allow interested individuals to obtain the much needed material that enables their businesses to remain competitive in the global economy.

Unranked: North Dakota State Soil Conservation Committee

$125,000 Total General

To effectively meet the technical assistance needs in Soil Conservation Districts, the North Dakota State Soil Conservation Committee requests increased funding in the Soil Conservation District Assistance Program (SCDAP). Environmental demands have increased interest in conservation planning by North Dakota producers. This requires enrolling producers in the right program, planning and designing the conservation practice and submitting the plan to the USDA for approval. Soil Conservation Districts depend on the SCDAP to accomplish this task. These funds also would be used as match for section 319 of the Clean Water Act Non-Point Source Pollution program.

NDSU Extension Service

2005-07 Impacts

Through its research-based educational programs, the NDSU Extension Service strives to:

1. *Enhance the profitability of North Dakota's crop and livestock producers by focusing on production, marketing and risk management issues*
2. *Conserve and enhance the natural resources of our state*
3. *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*
4. *Strengthen individual and family skills relating to parenting, financial management, work force preparation and communication*
5. *Maintain a healthy food system at the production, distribution and consumer levels while promoting healthy lifestyles for all age groups*
6. *Provide leadership for communities and community leaders to identify strengths, enhance local expertise and increase the rural economic base*
7. *Guide communities through issues that relate to public policy*
8. *Serve as educational leaders in the adoption and utilization of technology for economic, community and personal benefits*

Extension agents and specialists provided 559,137 face-to-face educational contacts with North Dakota residents in fiscal year 2005 and 622,554 in fiscal year 2006. These contacts were focused in eight key areas:

- *Community, Economic Development and Leadership*
- *Competitiveness and Profitability of Animal Systems*
- *Cropping Systems in the 21st Century*
- *Farm and Family Economics*
- *4-H Youth Development*
- *Human Development and Family Science*
- *Natural Resources and Environmental Management*
- *Nutrition, Food Safety and Health*

■ Community, Economic Development and Leadership

Horizons Program Affects Public Policy

Citizens in both Ashley and Ellendale, N.D., learned through the Horizons leadership program that their grass-roots efforts could change public policy. They understood that by working with their local legislators to pass a bill allowing essential function bonds to be used for moderately-priced housing in rural areas, they could make an impact on the housing shortage in their region. Because of their efforts, the bill passed, and 27 North Dakota communities are building new homes. People are going to work in rural areas doing the building and contract work, and all lumber and materials are being purchased through local North Dakota lumberyards. This project started by local citizens has provided an impact of more than $11.2 million dollars to North Dakota's economy.

Horizons Program Results in Improved Cell Phone Service

The Horizons leadership program played a valuable role in assisting the North Dakota Public Service Commission with a campaign to improve cell phone service to North Dakotans. As part of a community visioning session sponsored by the Horizons program in Ellendale, N.D., local citizens identified poor local cell phone service as more than an inconvenience, but as an actual barrier to business development and expansion of existing institutions. As a result of citizen comments and work with the North Dakota Public Service Commission, an initiative titled "Zap the Gap" was started in North Dakota to improve cell phone service across the entire state.

This townhome is one of several moderate-income housing units being constructed in 27 North Dakota communities as a result of the Extension Service's Horizons program.

Horizons Assists in Giving Youth a Voice

Citizens in Beach, N.D., often discussed their frustration about youth leaving the area for greener pastures elsewhere. The Horizons leadership program in Beach decided to address this issue and provided the vehicle to move youth into the spotlight by encouraging their involvement in community development. Because of the community's efforts to engage youth, the Prairie West Development Foundation for Golden Valley County passed a resolution in August 2005 that created a youth relations committee for the purpose of creating a youth voice on the board for the betterment of Golden Valley County. Four young people joined the board in fall 2005.

Rural Leadership North Dakota (RLND) Program Participants Value Networking Opportunities

RLND participants rated networking as the top response in what they liked best about their program experience. During the two-year program, participants visit eight communities across North Dakota and Washington, D.C., meet numerous seminar speakers/ guests, and interact with RLND alumni and current RLND participants. "RLND brings people together and fosters the attitude of 'we can' by sharing and working together – networking." *John Zetocha, Oakes - RLND alumni, 2005 class*

RLND Participant Skill Levels Increase

RLND class of 2005 participants increased their skill level an average of 40 percent in the stated objectives of the eight RLND seminars. This same group increased its skill level an average of 33 percent in leadership skills during the two-year program.

RLND Participant Projects Impact North Dakota

RLND class of 2005 participants initiated 25 projects and completed 72 percent of these projects by October 2005. RLND projects have positively impacted North Dakota communities and organizations by strengthening tourism, improving housing, strengthening economic development and improving quality of life.

■ Competitiveness and Profitability of Animal Systems

Beef Cattle Feeding in the Northern Plains

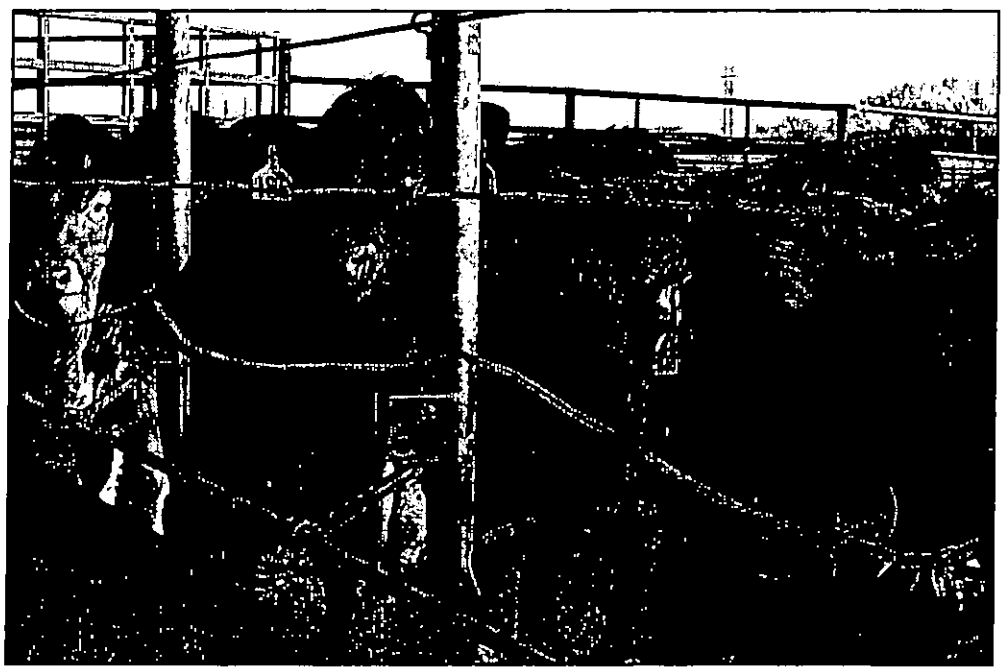
Interest in backgrounding and finishing beef cattle in the northern Plains continues to expand. The NDSU Extension Service meets the needs of these producers by holding in-depth training sessions on cattle feeding issues (nutrition, marketing, management and regulatory issues), as well as providing technical expertise and assistance with expansion, business planning, ration recommendations and nutrient management. Survey data indicates 59 percent of North Dakota feedlots are interested in expansion.

North Dakota Dairy Diagnostic Program

Directed by the NDSU Extension Service dairy specialist and coordinated by ND3P facilitators, dairy families monitor and measure the impact of decisions formulated by their self-selected advisory board. Impact examples: Farm No. 3 developed a management and nutrition plan that had an annual impact of $49,550 additional gross income. Farm No. 4 reorganized labor arrangements during a two-year period to lower costs and improve efficiency. The annual impact was $71,958 additional gross income. Farm No. 8 increased net income, after inventory change and depreciation, from $25,221 to $436,850 in three years (includes total of three years' income).

Drought Response

2006 was a tough year for farmers and ranchers in parts of the state hit by severe drought conditions. To provide options, Extension specialists hosted educational meetings at nine locations in south-central and southwestern North Dakota. The specialists discussed range and forage issues, livestock management, economics and other topics. Extension and North Dakota Agricultural Experiment Station faculty and staff also made drought information available on the Web. Major topics addressed included crop and livestock production, drought maps, weather information, family and financial concerns, services and horticulture.



The Extension Service provides beef cattle producers with training on feeding issues and technical expertise and assistance with expansion, business planning, ration formulation and nutrient management.

■ Cropping Systems in the 21st Century

Cereal Disease Management

Wheat fungicide trials and educational programs conducted by the NDSU Extension Service and Research Extension Centers in 2005 demonstrated that proper selection and timing of an appropriate fungicide resulted in wheat yield increases averaging 10 to 12 bushels/acre, with corresponding increases in test weight and market grade. Economic return from use of the fungicides was between $30 and $36/acre in 2005 because of yield and quality improvements achieved. Fungicides were used on an estimated 1 million acres of wheat in 2005 for an economic return of $30 million to $36 million.

Crop Diversity and Rotations

Pulse crops and soybean production increases have been a strong research and education program effort in recent years. Rotations including large-seeded legumes have become more profitable, as has improved crop pest management, including diseases, weeds, insects and increased soil nitrogen fertility. Acreage during the past five years has increased 620 percent for dry peas, 340 percent for lentils, 131 percent for chickpeas and from 2.1 million acres to more than 3.8 million acres of soybeans in 2006.

Weed Management for Enhanced Crop Yields

Weeds are a major threat to profitable crop production, and failure to control weeds and crop volunteers costs growers millions of dollars in lost crop yield and quality. Surveys have shown that wild oats alone can cause a 17 million bushel wheat loss annually. By following NDSU weed control recommendations, an additional 15 million bushels of wheat or $45 million (before weed control costs) would result. Economic impact of controlling weeds in all cash crops is huge and is a result of effective education and research program efforts.

Horticulture Education

An increasing number of county Extension agents from both urban and rural counties across the state estimate that 50 percent or more of the contacts they receive from the public are related to horticulture. One means of addressing this increased interest is a Gardening Saturday program that about 10 agents across the state have begun holding once a year for local residents. Topics include new varieties of trees and shrubs, protecting trees from insects and diseases, fruit trees for home and orchard production, small-fruit production, container vegetable gardening, native plants and natural landscaping, and growing grapes. Attendance has varied from 40 to 50 people in Bowman and Nelson counties to 350 in Grand Forks County, with most counties reporting an increase each year.

Wheat Production Education

Wheat continues to be the backbone of production agriculture in North Dakota, even as other crops expand in importance. To help wheat producers be more profitable and productive, an educational program entitled The Best of the Best in Wheat Research and Marketing was developed in 2005. This daylong program presents the latest available recommendations, from tillage to planting to harvest to marketing. Each year this program is held in four locations in different regions of the state to make it more accessible to farmers. Attendance has averaged about 100 at meetings in 2005 and 2006. Additional meetings are planned for 2007. Farmers have expressed their appreciation for this program because it addresses a wide range of wheat production and marketing issues in a single setting and brings the latest and most relevant research findings to bear.

Participants at a Best of the Best in Wheat Research and Marketing program view wheat varieties. The Extension Service developed the program to help wheat producers be more profitable and productive.

■ Farm and Family Economics

High Input Costs

Managing high input costs has been discussed around the state at crop improvement association meetings, wheat schools, irrigation workshops, advanced crop adviser schools, marketing clubs and lender outlook meetings.

Annie's Project

Annie's Project is a new programming effort that includes a six-session series of farm management meetings for women. Extension specialists and agents have been involved in the series that has been held at select locations in eastern and central North Dakota with plans to expand this year to the balance of the state.

BSE

Beef trade issues and related border closures due to bovine spongiform encephalopathy, especially imports from Canada and exports to Japan and other Pacific Rim countries, required considerable programming effort.

Crops Marketing Clubs

Marketing clubs have increased in number to 53 and are being supported with video conference educational programs, a facilitators conference, and two online Commodity Challenge marketing exercises (North Dakota Crops game and North Dakota Cattle Feeders game) to give producers a chance to practice what they have learned.

Building Wealth

The savings rate for Americans continues to be at the lowest rate since the Depression, while use of credit and home equity loans continues to increase. "Living within your means" has become a lost art. Extension educational opportunities such as the "Financial Security In Later Life" and "High School Financial Planning" programs, publications, the "Credit – Using it Wisely" display and "Marriage and Money" newsletters have been developed to address this issue.

An Extension farm management specialist teaches farm women about loan amortization during an Annie's Project session.

4-H Youth Development

Archery in the Schools

4-H youth development is supporting school curriculum with the Archery in the Schools program. More than 20 physical education teachers have been trained to bring the program to their schools. Several Extension agents are working with schools in their communities to extend activities beyond the school day through this outdoor skills program.

Work Force Readiness

Youth who are enrolled in 4-H demonstrate and practice work force readiness skills. In 2005, for example, 341 youth enhanced public speaking and communication skills in district communication arts events, nearly 2,000 youth demonstrated the ability to carry through on a project by exhibiting 11,561 exhibits at the North Dakota State Fair and 612 youth practiced decision-making skills in state judging contests.

4-H Program Far-reaching

County Extension staff delivered educational programs to more than 42,000 North Dakota youth during the 2005 year. This includes 5,898 youth enrolled in organized community clubs and 1,341 enrolled in 4-H after-school clubs.

North Dakota youth learn the fine points of archery from a 2008 U.S. Olympic women's archery team hopeful.

■ Human Development and Family Science

Children of Divorce

Divorce is a difficult life experience that affects adults and children, often with negative consequences. Children of Divorce is a four-hour educational workshop for parents or caregivers of children who have separated or experienced divorce. The program focuses on the experience of children when divorce occurs, stress and co-parenting. Evaluations of this educational program indicate participants understand how to help children more, work more cooperatively with ex-spouses and make a greater effort to reduce stress for children after their participation.

Parent Resource Centers

Parent Resource Centers associated with the NDSU Extension Service provide educational programs and resources on parenting and family to regions of the state. A recent study of parent education in North Dakota shows these centers and the Extension Service are ranked first as the main contact for parenting information in local communities. They also were ranked as the most useful organization in addressing parenting and family issues. These examples highlight the strength and importance of the resources, educational programs and partnerships developed by Extension Parent Resource Centers to benefit children, families and communities.

Dakota Fatherhood Initiative

Three out of four people believe father absence is one of the most significant social problems in America. The NDSU Extension Service, in collaboration with other entities, provides resources and training to strengthen father involvement through the Dakota Fatherhood Initiative. Since 2002, it has hosted four regional conferences and launched many specific activities to support father involvement. Participants have rated the resources and training opportunities to strengthen father involvement very highly and returned to strengthen families in their local communities.

The Extension Service provides resources and training to strengthen father involvement with children.

■ Natural Resources and Environmental Management

Nutrient Management

The North Dakota nutrient management educational program provides education on manure nutrient utilization. Participatory learning has been shown to provide the greatest impact on farmers' decision making. Therefore, on-farm manure utilization demonstration plots where initiated in North Dakota by NDSU nutrient management specialists and cooperating farmers. Field days were held at four farms across North Dakota that allowed more than 120 participants the opportunity to see firsthand how livestock manure can be substituted for commercial fertilizer in crop production systems.

Facility Design, Operation and Maintenance

Two separate series of workshops targeted toward technical advisers were held at five locations in North Dakota. The workshops were designed to increase participants' knowledge of livestock siting rules, facility design for animal handling and runoff management, as well as operation and maintenance of a facility after construction. More than 70 participants, including Natural Resources Conservation Service employees, 319 watershed coordinators, certified crop advisers and NDSU Extension Service agents, reported a high level of satisfaction with the usefulness of information they gained and how it will help them when working with livestock producers.

The Extension Service's nutrient management education program gives producers a firsthand look at how livestock manure can be substituted for commercial fertilizer in crop production.

■ Nutrition, Food Safety and Health

Dining with Diabetes: North Dakota Style!

Extension agents partner with local dietitians on this community-based nutrition education lesson series for diabetics. Food demonstrations model portion sizes to assist with calorie and carbohydrate control. Changes in knowledge, behavior, attitudes and clinical lab indices are measured during a three-month period. The program has been piloted in Foster, Grand Forks, Walsh, Richland and Cass counties. State partners include the North Dakota Department of Health and the Dakota Medical Foundation.

Agriculture to Health

The health benefits of North Dakota crops are being marketed to consumers through the development of research-based educational materials. Flaxseed, dry beans, healthful oils (canola, soybean, flaxseed and sunflower) and whole grains (wheat, oats, barley, buckwheat) have been featured. State partners include the USDA Agricultural Research Service Human Nutrition Research Center at Grand Forks and commodity groups.

Calcium Education

More than 1,000 children participated in a multisession calcium education project conducted in 13 North Dakota counties in 2005. Pre/post-surveys indicated increased knowledge and improved attitude toward milk and dairy products. About 63 percent of the participants reported drinking three or more glasses of milk per day, compared with 46 percent on the pretest. On the pretest, 16 percent of the participants reported drinking soda pop every day, compared with 8 percent on the post-test. About 92 percent planned to drink more milk in the future, 74 percent planned to eat more cheese and 73 percent planned to drink less soda pop.

Walking Program

About 34 percent of North Dakotans are completely physically inactive outside of work. To help modify this trend, Extension programs are promoting increased physical activity. In the past two years, 1,949 people have participated in the Walk Northwest North Dakota program. Since May 2004, they have walked a total of 682,949,160 steps, or about 341,475 miles, based on a Web-based data collection system.

Eat Your Fruits and Vegetables

The "5 Plus 5" recognition program promotes eating five to nine servings of fruits and vegetables, and getting physical activity on five or more days of the week. In 2005, 18 community coalitions were recognized for developing a multifaceted plan to improve health through the encouragement of increased physical activity and consumption of fruits and vegetables with the potential to reach 74 percent of the state's population.

Eat Smart. Play Hard.

North Dakota youth are falling short of nutrition and fitness goals. To address these issues, Extension and NDSU Bison Athletics teamed up to launch the statewide "Eat Smart. Play Hard." campaign, which emphasizes consuming a nutritious diet, getting sufficient physical activity and eating together as a family. The campaign included distributing educational pocket folders to the state's nearly 44,000 students in kindergarten to fifth grade, providing schools with "Eat Smart. Play Hard." posters, sending parents a newsletter that stresses the importance of family meals and providing teachers and youth organization leaders with an activity guide containing 16 minilessons on nutrition and physical activities.

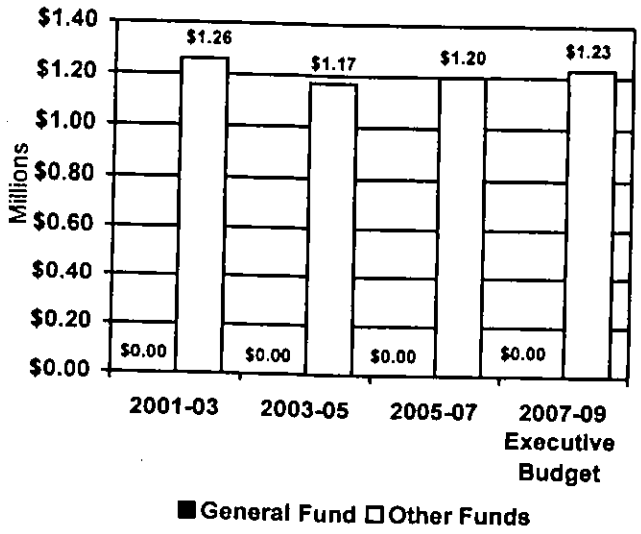
NDSU Bison athletes and elementary students team up to kick off the statewide Eat Smart. Play Hard. campaign.

Department 649 - Agronomy Seed Farm
House Bill No. 1020

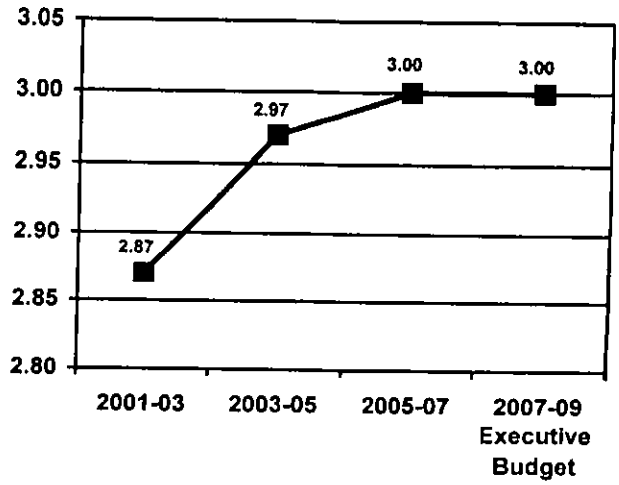
	FTE Positions	General Fund	Other Funds	Total
2007-09 Executive Budget	3.00	$0	$1,230,346	$1,230,346
2005-07 Legislative Appropriations	3.00 [1]	0	1,201,008	1,201,008
Increase (Decrease)	0.00	$0	$29,338	$29,338

[1]The 2005-07 appropriation is based on 2.97 FTE positions. Section 6 of Senate Bill No. 2020 (2005) authorizes the State Board of Higher Education to adjust FTE positions as needed. A total of .03 FTE position was added pursuant to this section and reported to the Office of Management and Budget.

Agency Funding



FTE Positions



Executive Budget Highlights

	General Fund	Other Funds	Total
1. Provides special funds spending authority for equipment over $5,000 to purchase a combine ($100,000), field cultivator ($25,000), forklift ($15,000), and autosteer unit for tractor ($12,000)		$152,000	$152,000
2. Removes one-time funding for 2005-07 biennium equipment purchases		($174,000)	($174,000)

Other Sections in Bill

Section 4 of House Bill No. 1020 provides that, in addition to the amount appropriated as special funds, any other income received 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 2007-09 biennium.

Section 6 of House Bill No. 1020 authorizes the State Board of Higher Education to adjust or increase full-time equivalent positions for the Agronomy Seed Farm and report any adjustments to the Office of Management and Budget.

Section 7 of House Bill No. 1020 authorizes the carryover of any unexpended general fund appropriation and excess income received by the Agronomy Seed Farm.

Continuing Appropriations

No continuing appropriations for this agency.

Major Related Legislation

At this time, no major legislation has been introduced affecting this agency.

Department 649 - Agronomy Seed Farm
House Bill No. 1020

	FTE Positions	General Fund	Other Funds	Total
2007-09 Executive Budget	3.00	$0	$1,230,346	$1,230,346
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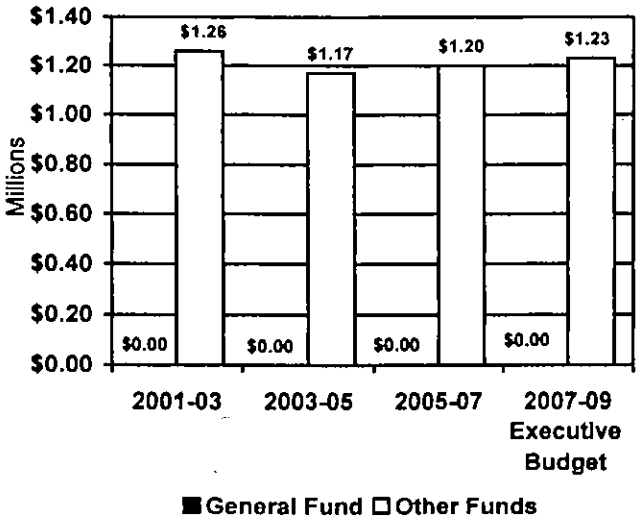
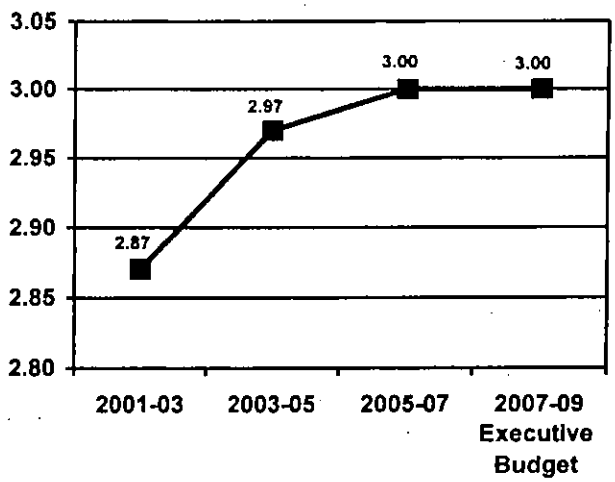


FTE Positions



First House Action

The House did not change the executive budget recommendation for the Agronomy Seed Farm.

Executive Budget Highlights

	General Fund	Other Funds	Total
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Section 6 of Engrossed House Bill No. 1020 authorizes the State Board of Higher Education to adjust or increase full-time equivalent positions for the Agronomy Seed Farm and report any adjustments to the Office of Management and Budget.

Section 7 of Engrossed House Bill No. 1020 provides that the Agronomy Seed Farm and branch research centers may elect to exempt certain vehicles used in farming operations from state motor pool requirements.

Section 8 of Engrossed House Bill No. 1020 authorizes the carryover of any unexpended general fund appropriation and excess income received by the Agronomy Seed Farm.

Continuing Appropriations

No continuing appropriations for this agency.

Major Related Legislation

At this time, there is no major legislation affecting this agency.

ATTACH:1

AGENCY OVERVIEW

Agronomy Seed Farm

North Dakota Agricultural Experiment Station

Agency Statutory Authority

North Dakota Century Code 4-05.1.

Agency Description

The Agronomy Seed Farm is a 590-acre farm near Casselton, N.D., that has been a part of the NDAES since it was gifted to the state in 1950. It was the result of a fund drive conducted by the North Dakota Crop Improvement Association, which solicited farmers, seed companies and many others throughout the state to help establish a farm whose main purpose would be to increase seed of new varieties as they were developed by the plant breeding and supporting departments of the NDAES. The ASF also propagates seed of older but still desirable varieties for the seedsmen of the area.

Agency Mission Statement

To produce an adequate supply of foundation-grade seed for the seedsmen of the state and area at a reasonable price and to support the varietal development research of the NDAES.

Agency Performancy 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 June 14, 2006. 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.

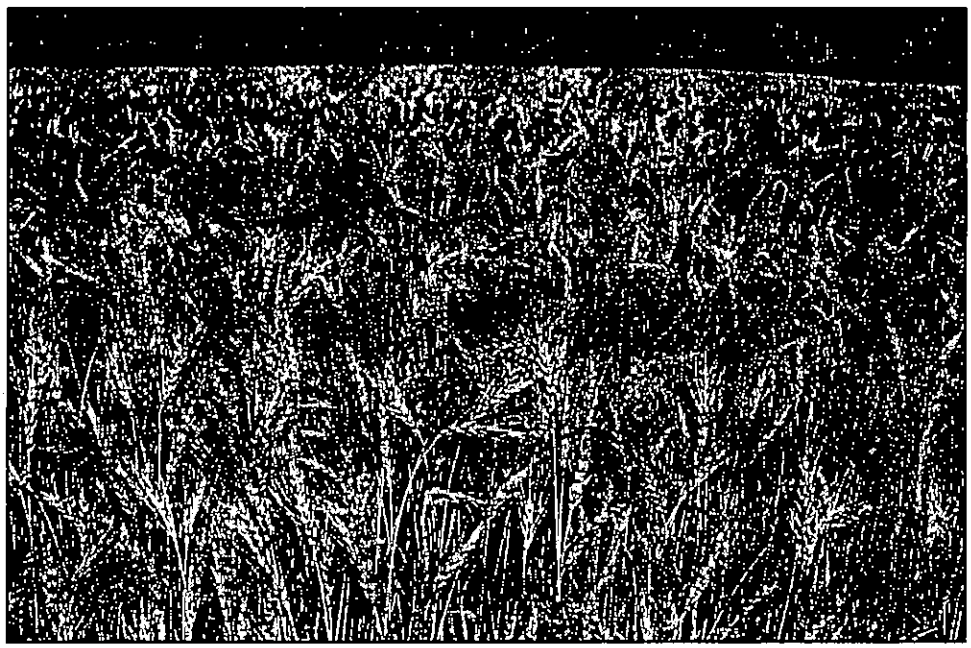
Agency Future Critical Issues

The critical issues facing the ASF are a continued demand for foundation-grade seed, favorable weather for growing seed and a good supply of varieties that are in demand by the seed industry. If these three conditions are present and good commodity prices accompany them, the future of the ASF is secure.

NDSU
North Dakota State University
ND Agricultural
Experiment Station

Agronomy Seed Farm

- Provided support to more than 15 research projects at three locations, which included more than 120 acres of variety test plots devoted to new variety development, 25 acres devoted to inbred line development and testing, and approximately 150 acres devoted to other production-oriented crop and weed-related research, resulting in greater efficiency in the projects and money savings in fertilizer and land preparation
- Increased the supply of a barley experimental from 25 pounds to 81 bushels in one generation
- Produced 2,244 bushels of an experimental wheat from 4 bushels in two generations
- Hosted numerous tours of trade teams, and visiting scientists and producers, which foster good will and disseminates the ASF's research results to others
- Produced and distributed seed of the new wheat variety Howard, the new oat variety Maida and five new Roundup Ready soybean varieties



Providing high quality wheat seed continues to be an important part of the Agronomy Seed Farm's mission.

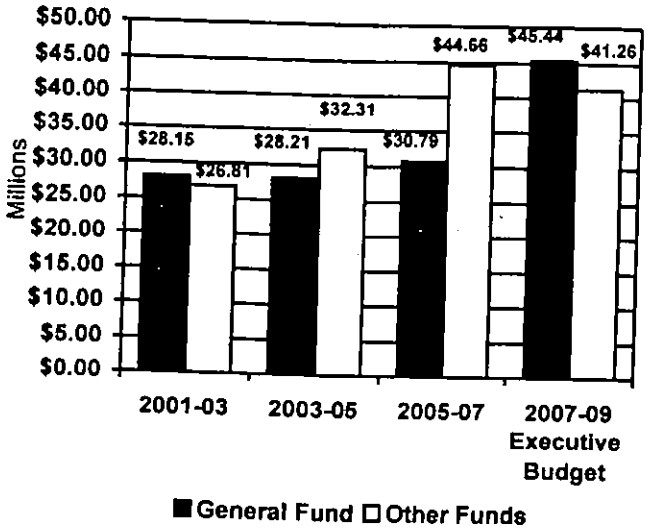
Department 640 - NDSU Main Research Center
House Bill No. 1020

	FTE Positions	General Fund	Other Funds	Total
2007-09 Executive Budget	348.08	$45,437,622	$41,261,157	$86,698,779
2005-07 Legislative Appropriations	345.08 [1]	30,794,067 [2]	44,662,646	75,456,713
Increase (Decrease)	3.00	$14,643,555	($3,401,489)	$11,242,066

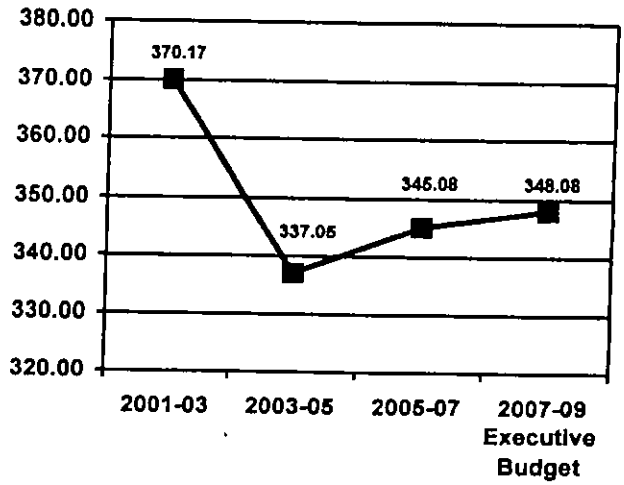
[1]The 2005-07 appropriation is based on 340.05 FTE positions. Section 6 of Senate Bill No. 2020 (2005) authorizes the State Board of Higher Education to adjust FTE positions as needed. A total of 5.03 FTE positions were added pursuant to this section.

[2]The Main Research Center allocated $150,000 of general fund appropriation to North Dakota State University Extension Service ($66,000) and the branch research centers ($84,000) for critical needs. Section 5 of Senate Bill No. 2020 (2005) authorizes that upon approval of the State Board of Agricultural Research and Education and appropriate branch research directors, the director of the Main Research Center may transfer appropriation authority within the North Dakota State University Extension Service, Northern Crops Institute, Main Research Center, and branch research centers.

Agency Funding



FTE Positions



Executive Budget Highlights

	General Fund	Other Funds	Total
1. Provides funding for extraordinary repairs (operations)	$740,465		$740,465
2. Provides funding for equipment over $5,000	$50,000	$1,558,000	$1,608,000
3. Adds funding for Phase II of the research greenhouse complex (emergency measure) **(executive budget identified as one-time funding)**	$9,000,000		$9,000,000
4. Removes 2005-07 major capital project relating to Phase I of the research greenhouse complex project funded with bond proceeds ($2 million) and gifts, grants, and donations ($5 million)		($7,000,000)	($7,000,000)
5. Adds funding for a Carrington Research Center headquarters office building addition (emergency measure) **(executive budget identified as one-time funding)**	$465,000		$465,000
6. Adds funding for a Hettinger Research Center headquarters office addition (emergency measure) **(executive budget identified as one-time funding)**	$222,750		$222,750
7. Adds funding for a North Central Research Center office and technology transfer building addition (emergency measure) **(executive budget identified as one-time funding)**	$420,000		$420,000
8. Provides funding for an equipment ($355,000) and operating ($200,100) pool	$555,100		$555,100

9. Adds funding for 1 FTE faculty position ($200,648) and 1 FTE research specialist position ($102,500) and operating costs ($99,352) for bioproducts/bioenergy research	$402,500	$402,500
10. Adds funding for operating expenses relating to scab resistance and pest management monitoring and research and for the North Dakota Agricultural Weather Network	$550,000	$550,000
. Adds funding for 1 FTE faculty position ($202,500) and operating expenses ($80,000) for pulse (pea, lentil and chickpea) variety development	$282,500	$282,500
12. Adds funding for a deferred maintenance pool (extraordinary repairs) to address needs at the Main Research Center and branch research centers **(executive budget identified as one-time funding)**	$100,000	$100,000

Other Sections in Bill

Section 4 of House Bill No. 1020 provides that, in addition to the amount appropriated as special funds, any other income received from federal acts, private grants, gifts, and donations, or from other sources received by the Main Research Center is appropriated for the purpose designated in the act, grant, gift, or donation for the 2007-09 biennium.

Section 5 of House Bill No. 1020 authorizes the transfer of appropriation authority between the Main Research Center, the branch research centers, NDSU Extension Service, and Northern Crops Institute.

Section 6 of House Bill No. 1020 authorizes the State Board of Higher Education to adjust or increase full-time equivalent positions for the Main Research Center and report any adjustments to the Office of Management and Budget.

Section 7 of House Bill No. 1020 authorizes the carryover of any unexpended general fund appropriation and excess income received by the Main Research Center.

Section 8 of House Bill No. 1020 provides that Phase II of the research greenhouse complex ($9,000,000), Carrington Research Center headquarters office ($465,000), Hettinger Research Center headquarters office ($222,750) and North Central Research Center office ($420,000) projects are an emergency.

Continuing Appropriations

No continuing appropriations for this agency.

Major Related Legislation

[redacted]his time, no major legislation has been introduced affecting this agency.

Department 640 - NDSU Main Research Center
House Bill No. 1020

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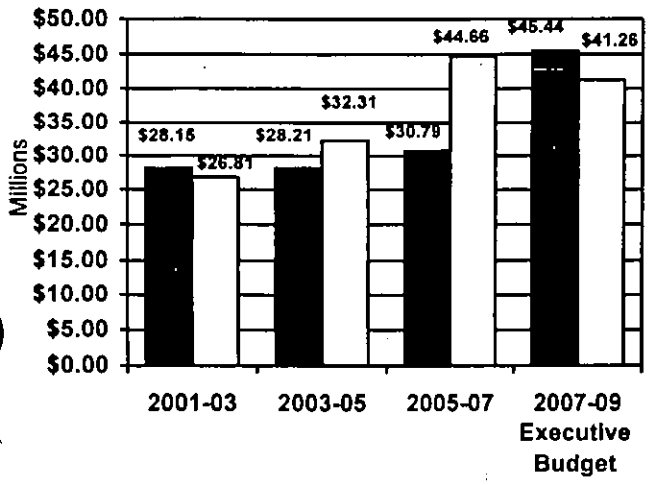
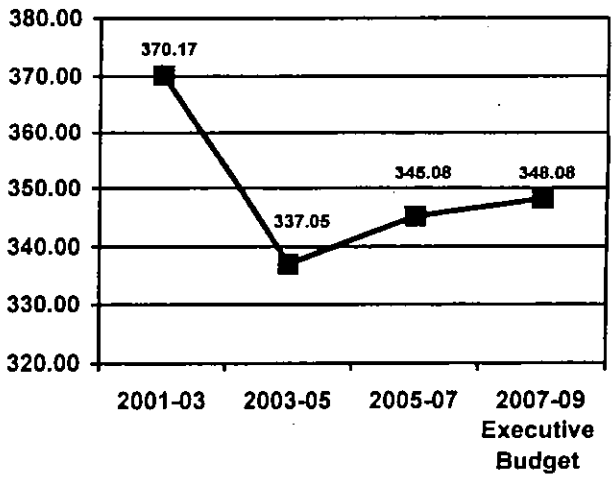
Agency Funding



FTE Positions



First House Action

Attached is a summary of first house changes.

Executive Budget Highlights
(With First House Changes in Bold)

	General Fund	Other Funds	Total
1. Provides funding for extraordinary repairs (operations)	$740,465		$740,465
2. Provides funding for equipment over $5,000	$50,000	$1,558,000	$1,608,000
3. Adds funding for Phase II of the research greenhouse complex (emergency measure) **(executive budget identified as one-time funding). The House removed $2,000,000 of funding for the greenhouse project.**	$9,000,000		$9,000,000
4. Removes 2005-07 major capital project relating to Phase I of the research greenhouse complex project funded with bond proceeds ($2 million) and gifts, grants, and donations ($5 million)		($7,000,000)	($7,000,000)
5. Adds funding for a Carrington Research Center headquarters office building addition (emergency measure) **(executive budget identified as one-time funding). The House decreased the funding for the Carrington, Hettinger, and North Central Research Center office projects (Nos. 5, 6, and 7) by a total of $200,000.**	$465,000		$465,000

6. Adds funding for a Hettinger Research Center headquarters office addition (emergency measure) **(executive budget identified as one-time funding)**	$222,750	$222,750
7. Adds funding for a North Central Research Center office and technology transfer building addition (emergency measure) **(executive budget identified as one-time funding)**	$420,000	$420,000
8. Provides funding for an equipment ($355,000) and operating ($200,100) pool	$555,100	$555,100
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12. Adds funding for a deferred maintenance pool (extraordinary repairs) to address needs at the Main Research Center and branch research centers **(executive budget identified as one-time funding)**	$100,000	$100,000

Other Sections in Bill

Section 4 of Engrossed House Bill No. 1020 provides that, in addition to the amount appropriated as special funds, any other income received from federal acts, private grants, gifts, and donations, or from other sources received by the Main Research Center is appropriated for the purpose designated in the act, grant, gift, or donation for the 2007-09 biennium.

Section 5 of Engrossed House Bill No. 1020 authorizes the transfer of appropriation authority between the Main Research Center, the branch research centers, NDSU Extension Service, and Northern Crops Institute.

Section 6 of Engrossed House Bill No. 1020 authorizes the State Board of Higher Education to adjust or increase full-time equivalent positions for the Main Research Center and report any adjustments to the Office of Management and Budget.

Section 8 of Engrossed House Bill No. 1020 authorizes the carryover of any unexpended general fund appropriation and excess income received by the Main Research Center.

Sections 9 and 10 of Engrossed House Bill No. 1020 provide for a study of industrial hemp and authorizes the Main Research Center to contract with any other university for the procurement of hemp seed necessary to conduct research.

Section 11 of Engrossed House Bill No. 1020 provides carryover authority for the research greenhouse complex at the Main Research Center. The 2005 Legislative Assembly authorized $7 million for the project, of which $2 million is from bond proceeds and $5 million is from gifts, grants, and donations. The Main Research Center may use any funding available within the total appropriation authority of $14 million to begin construction on the project.

Section 13 of Engrossed House Bill No. 1020 provides that Phase II of the research greenhouse complex ($7,000,000), Carrington Research Center headquarters office, Hettinger Research Center headquarters office, and North Central Research Center office projects ($907,750) are an emergency.

Continuing Appropriations

No continuing appropriations for this agency.

Major Related Legislation

House Bill No. 1459 - This bill provides a $840,465 general fund appropriation to the Main Research Center for extraordinary repairs.

Senate Bill No. 2288 - This bill provides for a biomass energy center consisting of a multidisciplinary group led by the North Dakota Agricultural Experiment Station and North Dakota State University Extension Service to conduct research and provide education relating to biomass production and conversion. Section 5 of the bill provides that House Bill No. 1020 (2007) includes $400,000 for the North Dakota Agricultural Experiment Station to support the activities of the perennial biomass production initiative at the biomass energy center.

ATTACH:1

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 on the campus of the North Dakota State University of Agriculture and Applied Science. The station is the administrative location of the Agricultural Experiment Station. 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 June 14, 2006. 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 NDAES continues to face challenges in sustaining an infrastructure in which to do high quality research. Shortfalls occur in quality greenhouse and plant research facilities, especially those for transgenic plants that will be introduced more frequently. 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. Major problems occur in acquisition of costly field and laboratory equipment that cannot be obtained through grants. The NDAES has insufficient laboratory space to meet the needs of 21st century agriculture. North

NDSU
North Dakota State University
ND Agricultural
Experiment Station

www.ndsu.edu/legislators

AGENCY OVERVIEW: Main Research Station

Dakota is becoming increasingly urban, and urban populations require products and services that are different than those needed by livestock and crop producers. Continual efforts to improve horticultural research are occurring, and the NDAES is addressing the needs by expanding campus research and demonstration plots. However, efforts need to continue to allow the NDAES to serve this segment of agriculture. Increased focus on food safety and natural resource management provides opportunities for growth and response to pressing national needs. Our research programs will attract doctoral students who will significantly enhance research efforts. Continued improvements in nutrition and feeding facilities for livestock research are needed. This is particularly needed when quality control feedlot trials and consistent product evaluation are required for scientific evaluations. The Center of Excellence for Beef Systems will fill a void in the research and education mission of our animal scientists. This center also will provide much-needed information to beef cattle producers on how to improve herds for desired meat quality traits. 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. Through the 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 commensurate effort to write more — and larger — grants is apparent, and we have concerns about additional pressures that fundraising has on faculty effectiveness. Rural populations continue to decline, and the dynamics of the farming population are changing. 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 high quality information that is transmitted by the technologies.

North Dakota Agricultural Experiment Station

Impacts of Reinvesting in Critical Areas

The executive recommendation for the NDAES included a general fund increase of $3,707,258 above the 2003-05 appropriation. This enhancement was addressed as follows:

1. Funds for 2.2 percent annual operating inflation
2. Two full-time equivalents (FTEs) for the Beef Systems Center of Excellence
3. An ethanol and malting barley initiative at the Dickinson Research Extension Center (REC) to be funded with Dickinson oil revenues
4. The executive recommendation included funding authority for:
   a. Research greenhouse complex for the Main Research Station
   b. Agronomy lab and greenhouse at the North Central REC

Implementation of legislative changes to the executive proposed budget, 2005-07

The North Dakota Agricultural Experiment Station was the recipient of a number of items in the 59th Legislative Assembly. Based on differences between Senate and House amendments to SB2020, conference committee changes and the resulting implementation, they are listed below:

- **Added general fund support for the Western Malting Barley project at various research centers: Main Station ($99,050), Dickinson ($3,046), Hettinger ($8,000) and Williston ($118,105).**
  These funds were distributed to the appropriate RECs as directed. Main Station scientists received funding for this project as in the past — continuing research agendas were funded, no new projects proposed under the guidelines of the Western Malting Barley Project.

- **Added $148,103 for the Beef Systems Center of Excellence (to the governor's recommendation of $301,897) for a total of $450,000 for salaries of two authorized FTE positions and other operating costs of the center.**
  Since this partnership came into existence, the criterion identified by the Legislature was met; therefore, two positions in the Animal and Range Sciences Department were created, advertised and recently filled for this research program.

- **Added $325,165 for extraordinary repairs, with $100,000 to be used to construct a machine storage shed at the Williston REC.**
  $100,000 was provided to the WREC for construction of a machine storage shed — a bid for construction of this shed was accepted and construction was completed in fall 2006. Extraordinary repair funds were distributed to the Main Station and all RECs based on a prioritized list of needed repairs (collated and maintained by the Main Station).

- **Added $150,000 for salary of one authorized FTE position in dry bean breeding/genetics.**
  A position description was developed and the position advertised. Two candidates were found acceptable, but both turned down the position. The position was readvertised and filled in October 2006.

- **Added $200,000 for operating and equipment needs for the Main Station, branch stations and Extension Service, with allocation to be determined by the State Board of Agricultural Research and Education (SBARE).**
  A proposal to allocate funding and equipment needs to the Main Station, the RECs and Extension Service was presented to SBARE for approval in July 2005. The proposal called for $50,000 to the Main Station to establish a revolving fund among departments for equipment purchases, similar to the revolving fund used for the RECs; $84,000 to the RECs (each REC allocated $12,000 to help offset rising costs of fuel,

ITD and other costs); and $66,000 to the Extension Service. The proposal was accepted by SBARE.

- **The Legislature allowed a carry-over of $800,000 to the Main Station to develop a Center of Excellence-Beef Systems, with the condition that an additional $2.2 million can be raised from federal and private sources.**

  The Beef Systems Center of Excellence is under way. The following have been accomplished:

  - A private company, North Dakota Natural Beef LLC (NDNB), was created and has been capitalized through more than $4.1 million in equity financing. The company will harvest cattle at the North American Bison Cooperative facility at New Rockford. Carcass pieces will be transported to Fargo for fabrication, value-added processing, packaging and marketing.
  - NDNB is finalizing plans to refurbish the Fargo facilities near the NDSU campus that will be the site for the processing. Within these new facilities will be about 6,000 square feet of space devoted to the Beef Systems Center research and education activities of NDSU. NDSU's commitment is to work not only with North Dakota Natural Beef, but also with any other current or prospective processors.
  - The State Board of Agricultural Research and Education (SBARE) concurred in spring 2006 that NDNB is an appropriate partner for NDSU in the Center of Excellence. This resulted in the release of funding for the two faculty positions authorized during the 2005 legislative session.

- **Provided $2,000,000 in bonding authority and authority to raise $5,000,000 in other funds for a research greenhouse complex at the Main Station.**

  A fundraising committee was formed and is in the process of identifying and contacting possible donors to raise the $5,000,000 for Phase I of this multiphase construction project.

- **Provided $440,000 in bonding authority and authorized $1.25 million in other funds to construct an agronomy lab and greenhouse at the North Central REC.**

  The NCREC, through a fundraising effort, raised more than $1.25 million in other funds to facilitate construction of this facility. Groundbreaking occurred in July 2006 and the project is well under way.

- **Provided $270,000 in bonding authority and authorized $80,000 in other funds to construct an addition to the headquarters building at the Central Grasslands REC.**

  The CGREC, through a fundraising effort, obtained $80,000 for this project. The groundbreaking occurred in September 2006 and the project should be completed before March 2007.

Main Research Station

2007-07 Needs-Based Budget

An increase of $8,295,600 or 15 percent above the 2005-07 general fund base would provide funds to address priorities of the State Board of Agricultural Research and Education and related needs of North Dakota agriculture. *The Main Research Station is including $2,777,100 (of the $8,295,600) in its optional package.*

SBARE ranked all of the projects for Extension, Main Station and branch stations together since a lot of the projects are joint efforts. Please refer to the ranked projects by reviewing the narrative in all of the agencies.

SBARE Ranking **NDSU Main Research Center - $2,777,100 (Branch Stations $2,282,700)**

No. 1 ranked: AES Equipment and Operating Pool

$940,000 Total General Fund Increase
($490,000 equipment and $450,000 operating)
Main Station $355,000 equipment
Hettinger $11,666 equipment
Streeter $11,667 equipment
Langdon $11,667 equipment
North Central $100,000 equipment

Main Station $200,100 operating
Dickinson $35,700 operating
Central Grasslands $35,700 operating
Hettinger $35,700 operating
Langdon $35,700 operating
North Central $35,700 operating
Williston $35,700 operating
Carrington $35,700 operating

Equipment Pool – A revolving fund for equipment purchases has been extremely successful for the Research Extension Centers to maintain their equipment base. Establishment of this fund has allowed each REC to purchase expensive research equipment on a timely basis, with a degree of regularity. In the 2005-07 legislative session, a small amount of funding ($50,000 to the Main Station for equipment) was used to establish a similar revolving fund for the research departments on the Main Station. To effectively purchase both field and laboratory equipment, which is extremely difficult using competitive grant funds, additional funding to the base of each of these revolving funds is needed for the Main Station and RECs to utilize the funds successfully.

Operating funds – A formula of $6,100 per scientist year (SY) has been used for allocating operating funds to departments on the Main Station. The costs associated with conducting research important to the state continue to increase. An increase in the formula funding to $10,000 per SY is needed to stay in line with inflation and should be sufficient for several years. In addition, increased operating funds for the RECs are needed to offset increases in fixed operating costs, including energy.

No. 2 ranked: Bioproducts/Bioenergy Development

$400,000 Total General Fund Increase

($120,000 salary and fringe benefits, .6 new FTE) – engineering faculty Main Station
($100,000 salary and fringe benefits, 1.0 new FTE) – research specialist Main Station
($80,000 salary and fringe benefits, .4 new FTE) – economics faculty Main Station
($100,000 Main Station operating funds)

Engineering faculty position (60 percent research, 40 percent Extension)
Focus on biomass-based systems, which hold great potential for becoming the preferred sources for liquid fuels. Needed research will focus on harvest, collection and transport systems for raw products, including crops, crop residues, animal production coproducts, byproducts from food processing, etc. Additional work will focus on conversion systems (engines, gasifiers, etc.) that will improve efficiency of conversion of cellulosic and other materials to liquid fuel and other products.

Research specialist to assist faculty position.

Economics faculty position (40 percent research, 60 percent Extension)
Focus on determining production costs, logistics and market analysis for biobased products. Working closely with colleagues throughout the university system, research would lead to the development of efficient processes for supply chain management and for efficient processing strategies.

No. 2 ranked: REC Support Staff

$462,800 Total General Fund Increase

($462,800 Salary and Fringe benefits, 7.0 new FTE - (1 FTE at each branch station)

Support Staff (7) – Research Extension Centers have a desperate need for additional office support staff to deal with the changing and increasing demands of today's workplace. Decentralization and an increase in recordkeeping for compliance issues, regulation, scheduling, accountability, data management and other facets of the ever-changing technologies place extreme pressure on a reduced work force to remain current.

No. 3 ranked: Scab (operating, NDAWN, etc.)

$625,000 Total General Fund Increase

($425,000 operating scab)
Main Station operating $350,000
Langdon operating $25,000
Carrington operating $25,000
North Central operating $25,000

($200,000 operating NDAWN)
Main Station operating $200,000

Operating for breeding/genetics, plant pathology, cereal quality and entomology research programs to enhance efforts on scab resistance, pest management and improved quality. Enhanced support of these programs is essential to maintain an advantage over the pest's ability to change and cause major economic losses to the state's farmers, as evidenced by the disastrous outbreaks of scab the last several years.

NDAWN support and field scouting – One research specialist will work on the NDAWN weather network to aid in the development of predictive models for disease development and to distribute timely weather information needed by producers to determine timing of pesticide application. Crop scouts located throughout the state will aid in identifying development of scab in various production regions in the state. Disease development will be monitored and compared to predictive crop models – these highly successful forecasting models continue to be improved as additional information is added to the model.

No. 3 ranked: Pulse Improvement

$470,000 Total General Fund Increase

($200,000 salary and fringe benefits, 1.0 new FTE faculty) - Main Station
($150,000 salary and fringe benefits, 1.0 new FTE assistant breeder) - NCREC
($120,000 operating funds for pulse program)
Main Station operating $80,000
North Central operating $40,000

Pulse improvement program – North Dakota has experienced rapid growth and continued interest in the pulse industry. Acreages of peas, lentils and chickpeas have increased dramatically, particularly in the central and western regions of North Dakota. North Dakota leads the nation in pea production and acreage will continue to increase as demand continues. Pea production provides many benefits to the soil and environment and is an excellent protein source for livestock feed. A faculty position at the Main Station is needed to develop improved varieties of peas, lentils and chickpeas that are adapted to the northern Great Plains. An assistant breeder/agronomist to be located at the NCREC will aid the effort to develop improved varieties and evaluate appropriate production techniques.

No. 4 ranked: Waste Management

$280,000 Total General Fund Increase

($160,000 salary and fringe benefits, .8 new FTE) Main Station
($84,000 salary and fringe benefits, .6 new FTE) Carrington
($36,000 operating funds)
Main Station $24,000 operating
Carrington $12,000 operating

Engineering (80 percent research, 20 percent Extension). A faculty member in Ag and Biosystems Engineering will focus on development of innovative waste management systems with an emphasis on developing uses and products from wastes that can generate revenue for the enterprise, minimize odors and reduce costs for production.

Waste management specialist (60 percent research, 40 percent Extension) located at Carrington. To work with animal production, feedlot, engineering colleagues and livestock producers in developing economical and efficient systems.

No. 5 ranked: Host Resistance and Pest Research

$700,000 Total General Fund Increase

($700,000 salary and fringe benefits, 7.0 new research specialists FTE @ $100,000 each)
2 FTE Main Station, 2 FTE Williston, 1 FTE Carrington, 1 FTE North Central, 1 FTE Langdon

Host resistance and pest biology – research specialists (7) will enhance ongoing efforts to more rapidly develop varieties with improved resistance to major diseases, including sclerotinia, wheat and barley scab, blackleg, root rot and other diseases affecting major crops in the state and to understand the biology of the pathogens important to the cropping systems in the state. Two specialists will be located at Fargo (Main Station), two at Williston REC (one to focus on barley improvement with supervision from Main Station scientists) and one each at the CREC, NCREC and LREC.

No. 6 ranked: Swine Specialist

$100,000 Total General Fund Increase

($80,000 salary and fringe benefits, .4 new FTE) - Main Station
($20,000 operating) - Main Station

Swine specialist – At one point in time, North Dakota produced more than 500,000 market hogs per year and had more than 2,000 producers. Presently North Dakota produces 160,000 market hogs and has 450 producers. However, because of its economic impact, interest in increasing swine production in the state has grown recently. Each dollar of return from pigs marketed turns over 3.49 times for feed, labor, trucking, vet service, utilities, etc. This industry needs technical expertise, management assistance and an unbiased resource that can help the state develop its hog industry. A swine specialist that is 60 percent Extension, 40 percent research is needed to fill this role.

No. 7 ranked: Livestock Development

$58,000 Total General Fund Increase

($40,000 salary and fringe benefits, .2 new FTE) - Main Station

($18,000 operating) - Main Station

Livestock industry specialist (80 percent Extension, 20 percent research). There are many driving forces, including the desire of many ag producers to grow their existing enterprises and/or to diversify their operations, utilization of potential feedstuffs that are shipped to other states for their livestock operations, opportunities to enhance production of feedstuffs to service a growing North Dakota industry, use of coproducts emerging from the rapidly expanding bioenergy/bioproducts enterprises as feedstuffs and utilization of grazing capacity in range and managed areas. A faculty position will work continually with colleagues and industry to evaluate opportunities and to provide information that can be used for timely decision making.

No. 7 ranked: Pest Management

$128,000 Total General Fund Increase

($128,000 salary and fringe benefits, .8 new FTE) - Carrington

Area pest management specialist – This 80 percent research, 20 percent Extension position is critically needed to provide information to area growers affected by crop diseases. The position will be located at the Carrington REC. The CREC is in the center of great crop diversity, an area that has been greatly affected by severe outbreaks of many major diseases.

No. 8 ranked: Pest Application Research

$90,000 Total General Fund Increase

($90,000 salary and fringe benefits, 1.0 new FTE, research specialist) - Main Station

Improving pesticide application efficiency – One research specialist is needed to continue efforts to identify the best methods to apply pesticides effectively and efficiently to control scab.

No. 9 ranked: Livestock/Range

$322,000 Total General Fund Increase

($294,000 salary and fringe benefits, .7 for each of the 3 new FTE @ $98,000 each)

3 FTE - 1 FTE Streeter, 1 FTE Hettinger, 1 FTE Main Station

($28,000 operating)

Main Station $12,000

Central Grasslands $8,000

Hettinger $8,000

Three livestock/range specialists (70 percent research, 30 percent Extension) to compare whole-systems management of organic, natural, grass-fed and conventional beef production systems, as well as the relationship of these systems to the environment. Help determine market causes affecting cattle sales. Feedlot research will focus on evaluating coproduct use for efficient livestock production. One specialist will focus on animal health issues. The specialists will be located at the Central Grasslands REC near Streeter, Hettinger REC and the Main Station.

No. 10 ranked: Irrigation

$180,000 Total General Fund Increase

($180,000 salary and fringe benefits, 1.0 new FTE, research scientist) - Williston

Irrigated agriculture is becoming increasingly important in northwestern North Dakota, with high-value crops evident in the region. One research scientist is needed to evaluate irrigated production practices in North Dakota, to be stationed at the WREC.

No. 11 ranked: Food Industry

$250,000 Total General Fund Increase

($120,000 salary and fringe benefits, .6 new FTE faculty) - Main Station
($100,000 salary and fringe benefits, 1.0 new FTE faculty) - Main Station
($30,000 operating funds) - Main Station

Faculty position (60 percent research, 40 percent Extension)
Position in enhanced processing of existing and new crops. Will have expertise in processing/engineering/plant operations. Will work in collaboration with colleagues throughout system to assure that supply chains, as well as processing, are optimized. Will work in close collaboration with business/marketing and technical associates in agricultural business development program above.

Research specialist to assist faculty position.

No. 12 ranked: Sustainable Agriculture

$54,000 Total General Fund Increase

($54,000 salary and fringe benefits, .3 new FTE) - Dickinson

North Dakotans support current production agriculture, but also see a need to explore long-term sustainability. The Dickinson REC is exploring new sustainable agricultural opportunities through research and Extension efforts, including coordination of the Professional Development Program sponsored by the USDA Sustainable Agriculture Research and Education Program. These research and Extension programs will help rural North Dakotans develop new sustainable systems to enhance the economic viability of rural areas and to meet their economic, social and environmental needs within a diversified agriculture. Additional support for these efforts is needed, as is a strong program of direct outreach to farmers and ranchers. One sustainable agricultural specialist (70 percent Extension, 30 percent research) is needed at Dickinson to provide this support and outreach to southwestern North Dakota.

North Dakota Agricultural Experiment Station

2005-07 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' nine departments: Agribusiness and Applied Economics, Agricultural and Biosystems Engineering, Animal and Range Sciences, Cereal and Food Sciences, Entomology, Plant Pathology, Plant Sciences, Soil Science and Veterinary and Microbiological Sciences.

■ Variety Development

1. Developing hard red spring wheat (HRSW) with improved resistance to scab has been an ongoing effort for many years. Alsen HRSW, which possessed a reasonable level of scab resistance, quickly became established as the predominant spring wheat variety grown in the state the last several years. In 2006, Alsen remained the most highly used variety, planted on approximately 24 percent of the state's HRSW acreage.
2. Several new HRSW wheat varieties, Steele-ND, Glenn and Howard, also possess levels of scab resistance that will be useful for growers to combat this disease. Steele-ND uses a source of resistance from that is different from that of Alsen, and is from a wild relative of wheat. The resistance of Howard is similar to that of Alsen, but Howard has better overall disease resistance, higher yield potential and improved quality traits. Glenn combines the resistance of Alsen and Steele-ND, and also has excellent yield potential, better resistance to foliar leaf diseases and excellent quality traits. Initial production of this variety by North Dakota farmers suggests that Glenn will become the predominant variety as seed availability meets demand.
3. Three new durum wheat varieties, Divide, Grenora and Alkibo, all possess excellent yield and highly superior quality traits, with very good disease resistance. Reaction of these three durum wheat varieties to scab is better than any commercially available variety, yet not to the level of Alsen. Divide durum has the best scab resistance of the three, and is better adapted to eastern and central North Dakota, while Alkibo and Grenora are best suited to western North Dakota.
4. Stellar, a six-rowed barley variety developed for the malting industry, is in final stages of trials for acceptance by a major U.S. brewer. Stellar already has been accepted by other U.S. brewers. This variety, developed in part through the Western Malting Barley Project, is adapted across an extremely wide range of North Dakota environments and has excellent disease resistance, very good quality traits, and excellent agronomic and yield traits. In some dry to very dry

areas of North Dakota during the 2006 growing season, Stellar performed exceptionally well, with yields well in excess of 100 bushels per acre. This yield performance, particularly during such difficult growing conditions, has stimulated renewed interest in barley production in many areas of North Dakota.

5. The rapid expansion of corn acreage into northern parts of North Dakota are due, in part, to the wide availability of early maturing, adapted parental lines. The corn breeding/genetics program at NDSU is the most northern corn improvement program in the world, focusing on identifying inbred lines expressing high yield potential in early maturing backgrounds, combined with rapid dry-down, to reduce drying costs after harvest. These inbred lines are made available to breeding programs in the hybrid seed corn industry.

- The Beef Systems Center of Excellence has the objectives of enhancing and expanding North Dakota's beef industry, providing training and educational opportunities for students and the industry, and enhancing North Dakota State University's ability to provide leading research for the state's beef industry. North Dakota Natural Beef LLC (NDNB) was formed and raised $4.1 million in equity. A contractural arrangement was made between NDNB and NDSU and a facility was purchased by NDNB to house the Beef Systems Center of Excellence. Surveys have estimated that finishing and slaughtering cattle in the state could add $400 million annually to the state's agricultural economy. The research associated with this center should lead to the information necessary to increase the number of cattle finished and slaughtered in the state, and improve the profitability of beef production in the state.

NDSU corn breeding research has contributed to the rapid expansion of corn acreage into northern North Dakota.

- Plant pathologists and plant breeders are working as a team to identify new sources of resistance to crop diseases and develop improved varieties using these sources of resistance. These teams of scientists are working diligently to develop varieties with resistance to scab, wheat and stem rust, root rots, white mold, black leg of canola, potato diseases and diseases of other crops important to the state's economy.
- Some of the greatest opportunities for North Dakota agriculture involve oilseeds. Ag biotechnology traits are essential to the future productivity and ability to meet new specialty uses. Current research has focused on increasing returns to canola. Improved selection in canola breeding indicates the ability to improve oil content per acre by about 16 percent to 18 percent, increasing per-acre returns from about $200/acre to $250/acre. Improved varieties would improve the comparative advantage of canola relative to other North Dakota crops and improve farmer returns.
- The North Dakota Agricultural Weather Network (NDAWN) is a highly visible and widely used product supported by NDSU scientists. The network reports current and past climatic data from 70 statewide stations. This information is used by all agricultural interests and also by diverse groups, such as law enforcement agencies, construction and manufacturing firms, insurance and retail businesses, health officials and the U.S. military. NDAWN annually receives more than 2 million inquiries for weather-related data. Efforts to improve upon the cereal disease forecasting system have continued; improved epidemiological and weather data are incorporated into the model, which gives farmers greater reliability in determining whether to spray for disease control. NDSU scientists, working with colleagues in other states, increased the accuracy of the model predicting scab infection to 80 percent. The model can be accessed either by telephone or via the Internet; the Web site had more than 7,000 inquiries per year during the last four years, again an indication that NDAWN is widely used by citizens of the state. Other forecasting models exist for a number of diseases affecting crops in North Dakota.
- Recent evidence suggests that the nutrition available to the growing fetus in livestock impacts the longevity and health of the offspring even into adulthood. The placenta plays a major role in the regulation of fetal growth. In all domestic livestock species, offspring born at an above-average weight have a better chance of survival than those born at a below-average weight. Placental nutrient transport efficiency is directly related to blood flow to the pregnant uterus. Therefore, an understanding of

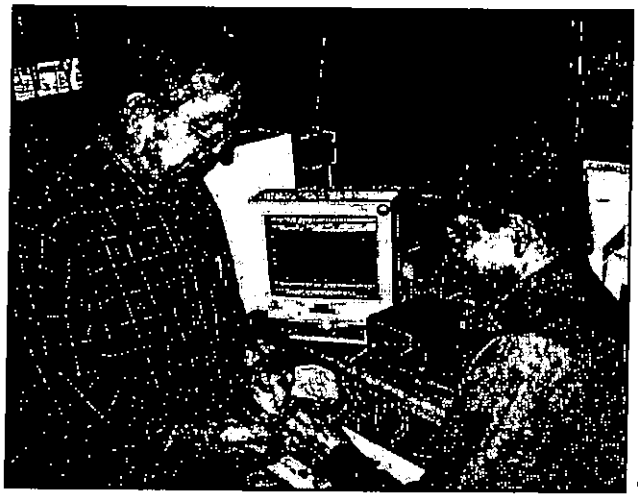
factors that impact uterine blood flow will directly impact fetal growth. Future technologies based on basic information provided from this research could be used to optimize maternal-fetal nutrient exchange, and fetal development and subsequent longevity, productivity and marketability of livestock.

- Plant pathologists worked with federal and state agencies to obtain Section 18 emergency exemptions that allow producers to legally apply several fungicides to control crop diseases. Without such exemptions, these pesticides would not be available to combat crop disease problems. An example of the impact of one Section 18 exemption is that of Folicur, which in 2005 was applied to more than 1 million acres of wheat and barley, saving more than $25 million in reduced yield and quality losses to these crops.
- Soil scientists, working in conjunction with agronomists and plant breeders, have developed efficient evaluation techniques to determine the reaction of soybean varieties to iron deficiency chlorosis. Soybean farmers can reduce the impact of this yield-reducing abiotic stress by using appropriate soybean varieties, resulting in improved yields and increased revenue.

Scientists in NDSU's Center for Nutrition and Pregnancy study the effect of pregnant ewes' nutrition on their fetus's health.

- Continued research in the development of practical methods of assisted reproductive technologies in the domestic livestock industry should lead to improvements in reproductive efficiency, as well as breeding improvement programs through the use of embryos with specific genetics, importation and exportation of animals in the form of frozen embryos, and production of transgenic animals with highly desirable genes.
- Prior to 1998, leafy spurge was doubling in areas of infestation every 10 years. In the last several years, leafy spurge infestations in North Dakota have remained steady or declined slightly. This major accomplishment, significant to farmers and ranchers throughout the state, was achieved through an interdisciplinary research effort that identified appropriate pesticide use, appropriate grazing techniques and use of flea beetles as an integrated effort for controlling this invasive species. As leafy spurge concentration is reduced in pasture or rangeland, an increase in desirable range species occurs, thereby enhancing the carrying capacity of the land.
- NDSU scientists are leading the way in site-specific agriculture. The practice of applying only the precise amounts of nutrients and pesticides required to maximize yields results in more cost-effective production by the grower and a vast reduction in chemicals introduced into the state's ecological systems.
- Agricultural engineers and soil scientists are working to investigate the possibilities of using excess water from the Devils Lake basin for crop irrigation purposes. A detailed map of the soil properties in the surrounding region will provide information needed to better understand the soil-water compatibilities for irrigation purposes.
- Research considered the optimal segregation and marketing strategies to maximize the ability to capture premiums for North Dakota crops. Results for hard red spring wheat found the value of segregating by variety is about 10 cents/bushel (bu) and, if buyers specify contracts with functional requirements, the value increases to about 20 cents/bu.
- A biodiesel processing model was developed that was used to perform economic analyses of biodiesel production from canola and other oilseeds. The expertise gained through systems modeling enabled the efficient production of canola biodiesel used for demonstration purposes at the North Central Research Extension Center to educate the public on canola biodiesel.

- A sensitive method was developed to measure sensory quality of flaxseed oil. This method is needed to establish oil processing and storage parameters to ensure acceptable sensor quality, and may be adapted to other flaxseed foods. This methodology will be instrumental in enhancing the use and demand for flax products for human food, resulting in increased production of flax in North Dakota.
- Preliminary research indicates potential economic benefits from the development of a biorefining industry that would use wheat straw as feedstock to produce ethanol, cellulose nanofibers and electric power. North Dakota Agricultural Experiment Station scientists found that wheat straw is a preferred feedstock for a biorefinery, as it has a higher content of both cellulose and lignin and can be supplied at a lower cost than alternative feedstocks (e.g., corn stover, switchgrass). A biorefinery producing 50 million gallons of ethanol per year would use 900,000 tons of wheat straw annually, employ 77 workers and result in more than $50 million in annual payments to North Dakota entities. Adding production of cellulose nanowhiskers, a structural material with industrial applications, to the biorefinery would add jobs and enhance profitability.
- A sensor was developed to determine the sugar content of sugar beets during the harvesting process. This could aid the efforts under way in site-specific sugar beet production. Using similar technologies, a sensor was developed to determine the protein content of wheat during harvest. This is a tool that could be used for site-specific farming and potentially could allow farmers to identity preserve the wheat crop based on quality parameters.
- Entomologists have found that using reduced rates of insecticide for wireworm control in areas of low root maggot pressure resulted in savings to sugar beet growers of more than $1 million annually, as well as reducing the use of organophosphate insecticides by about 750,000 pounds. This strategy is used on more than 250,000 acres of sugar beet production in North Dakota. Evaluation of new seed treatment products also may result in broad spectrum control of sugar beet insect pests at no additional cost to the farmer, eliminate the use of more than 3.5 million pounds of organophosphate insecticide annually and be safer to the grower and ecosystem.
- The Veterinary Diagnostic Laboratory (VDL) plays a significant role in the state's livestock industries and also public health. The VDL is a member of the National Animal Health Laboratory network and has the responsibility for federal testing, as needed. The VDL typically handles approximately 10,000 cases annually, and also is integral in the surveillance program for West Nile virus. During the 2006 outbreak of anthrax in cattle, the VDL implemented a rapid, sensitive laboratory test that reduced diagnostic time to a few hours. The VDL continues to investigate state-of-the-art diagnostic techniques that improve efficiency and accuracy while reducing time and cost.
- Winter grazing is practiced by many livestock producers in the northern Plains in an effort to lower winter feed costs. Dormant-season grazing, while not an exclusive winter-grazing period, is defined as grazing between plant quiescence in late fall and green-up in early spring. The direct effects of dormant-season grazing on individual plant species versus conventional seasonlong use is not well defined. Present research indicates that two dominant native grasses, western wheatgrass and blue grama, are unaffected or benefited by dormant-season grazing, compared with full-use (50 percent disappearance), seasonlong summer grazing. Incorporating a brief early summer grazing period on winter-grazed pastures appears to be able to increase land productivity and reduce economic losses through increased livestock stocking rates.
- Evidence suggests that biological mechanisms regulating normal growth, development and nutrient utilization are programmed in utero for postnatal growth and adult function. Research is investigating maternal nutrition and high selenium effects on tissue vascularization, fetal growth, postnatal growth and end-product quality. Results from this research effort will provide new knowledge in the area of vascularization of key nutrient-transferring tissues, which should lead to improved animal production through the identification of the biological mechanisms controlling growth, metabolism and availability of dietary nutrients in agriculturally important livestock species.



NDSU researchers developed a sensor that can determine sugar content in sugar beets in the field.

1/22/07 Handout #3

	2005-07 Adjusted Appropriation	2007-09 Executive Recommendation	2007-09 Increase from Adjusted Approp	Percentage Increase
BSC	$243,481	$473,192	$229,711	94.3%
LRSC	$43,662	$125,604	$81,942	187.7%
WSC	$86,475	$157,198	$70,723	81.8%
UND	$2,300,545	$5,928,876	$3,628,331	157.7%
NDSU	$1,692,226	$4,209,162	$2,516,936	148.7%
NDSCS	$753,332	$1,386,445	$633,113	84.0%
DSU	$383,690	$1,018,763	$635,073	165.5%
MASU	$208,994	$1,946,930	$1,737,936	831.6%
MISU	$596,870	$1,452,744	$855,874	143.4%
VCSU	$258,416	$796,235	$537,819	208.1%
MISU-BC	$109,725	$158,702	$48,977	44.6%
Forest Service	$36,638	$60,204	$23,566	64.3%
Main Station (Includes Branch Stations)	$740,465	$840,465	$100,000	13.5%

640

ADD 150,000 TO ONE TIME DEFERRED MAINT.

Main Research Station

2007-09 Major Capital Projects

Main Research Station

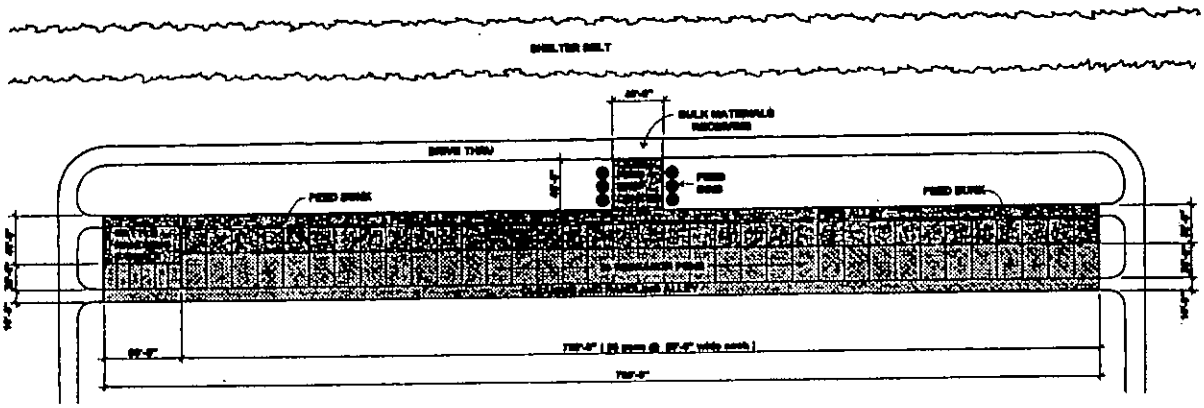
Livestock Research Facility

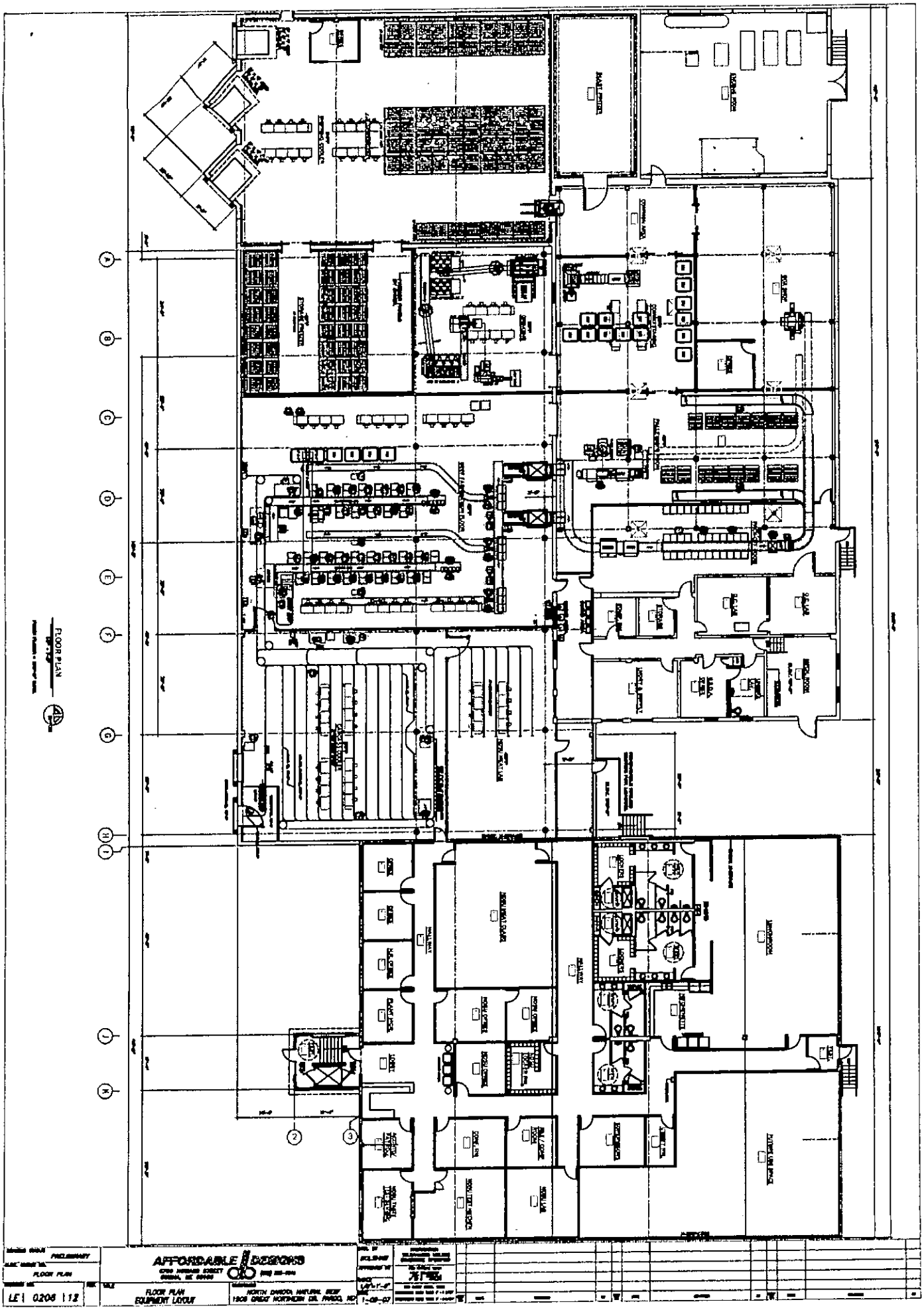
$950,000

The beef research facility is needed to fully utilize the potential for beef research at NDSU and to better serve the state's beef producers. It will help fulfill a need for integrated research capabilities in the areas of beef cattle nutrition, reproduction, and management that will complement the Beef Systems Center of Excellence.

The proposed research facility would be approximately 58' X 720' and consist of 36 pens. The building itself would be 30' X 720' and would provide shelter for the cattle and a covered drive-through feeding alley. In addition an 80' X 58' building would be constructed on the end of the main building to house handling facilities, scales, chutes, and a feed preparation center. The facility would be designed to accommodate all aspects of beef cattle management, nutrition, and reproductive physiology research including cow-calf, backgrounding, and finishing.

PROPOSED
BEEF RESEARCH FACILITY
FLOOR PLAN




FLOOR PLAN
AFFORDABLE DESIGNS
FLOOR PLAN
LE1 0206 112
FLOOR PLAN
EQUIPMENT LAYOUT

Construction of Greenhouse Complex

NDSU Agriculture and University Extension
North Dakota Agricultural Experiment Station

FACILITIES

Main Station - North Dakota Agricultural Experiment Station
Research Greenhouse Complex - Phase I

Jan. 18, 2007 Sections 902.3 & 902.5

Requested Action:

NDSU requests carryover authorization for Phase I of the Main Station Research Center Greenhouse Complex approved in the 2005-2007 biennium in the amount of $7,000,000.

Background Information:

Phase I of the Main Station Research Center Greenhouse Complex appeared as priority No. 1 in the 2004 NDSU Campus Master Plan for the NDAES. The project was authorized in SB 2023:

"The main research center may obtain and utilize federal funds and other funds to assist in the construction of a greenhouse complex at the main research center. There is appropriated to the main research center the sum of $5,000,000, or so much of the sum as may be necessary, from any federal acts, private grants, gifts and donations, or other funds that may become available for this project for the biennium beginning the effective date of this Act and ending June 30, 2007."

Project Description:

The North Dakota Agricultural Experiment Station (NDAES) needs secure greenhouse space to conduct research on transgenic crops to meet consumer demands and to respond to the threat of bioterrorism. This project will involve new construction and will implement the renovation of selected existing greenhouses to address the critical need for state-of-the-art greenhouse space for NDAES researchers. The project has a high priority ranking because of the current condition of the existing greenhouses and the requirements for expanding AES research needs.

Each greenhouse compartment within a range shall have de-ionized and regular water systems, a fertilizer injection system, heating, lighting, ventilation and environmental controls. Independent room access is required for security purposes and to minimize contamination of rooms by workers and transported plant material. Approximately 24 compartments, each 800 square feet in size, are needed to meet current and expected future demands for high quality research space.

The headhouse area will include eight laboratories, controlled-environment seed storage rooms, a large threshing/storage room, propagating material room, freezer room, three drying rooms (with 15 dryer units) and two large growth chamber areas sufficient for 24 chambers each. The structure shall include restrooms and changing/locker rooms. It will be planned with future expansion in mind to conform to the future needs of NDAES research priorities and goals.

The location of this facility shall be in proximity to other on-campus laboratory research facilities because of the need to transport plant material between buildings in the winter, for access by student labor and for the convenience of graduate students and faculty.

Funding:

The project will be funded from $2,000,000 in state bonding and $5,000,000 in special funds. Carryover of this authorization will allow NDSU to continue to raise funds to meet the $5,000,000 goal in special funding. Construction of Phase I is expected to start in the 2007-2009 biennium.

The 2007-2009 NDAES executive budget included an additional $9,000,000 for the completion of Phase II of the three-phase greenhouse project. Phase II will consist of the construction of the remaining non-transgenic greenhouses, equipment and fitting out several rooms that are "shell only" in Phase I.

Main Research Station

Research Greenhouse Complex - Phase I

Total Facility **$30,000,000**

(Includes: Headhouse and 3 pair Greenhouses and Biosafety Level 2 Headhouse and 4 pair Greenhouses)

Phase One* ..... **$ 7,000,000**

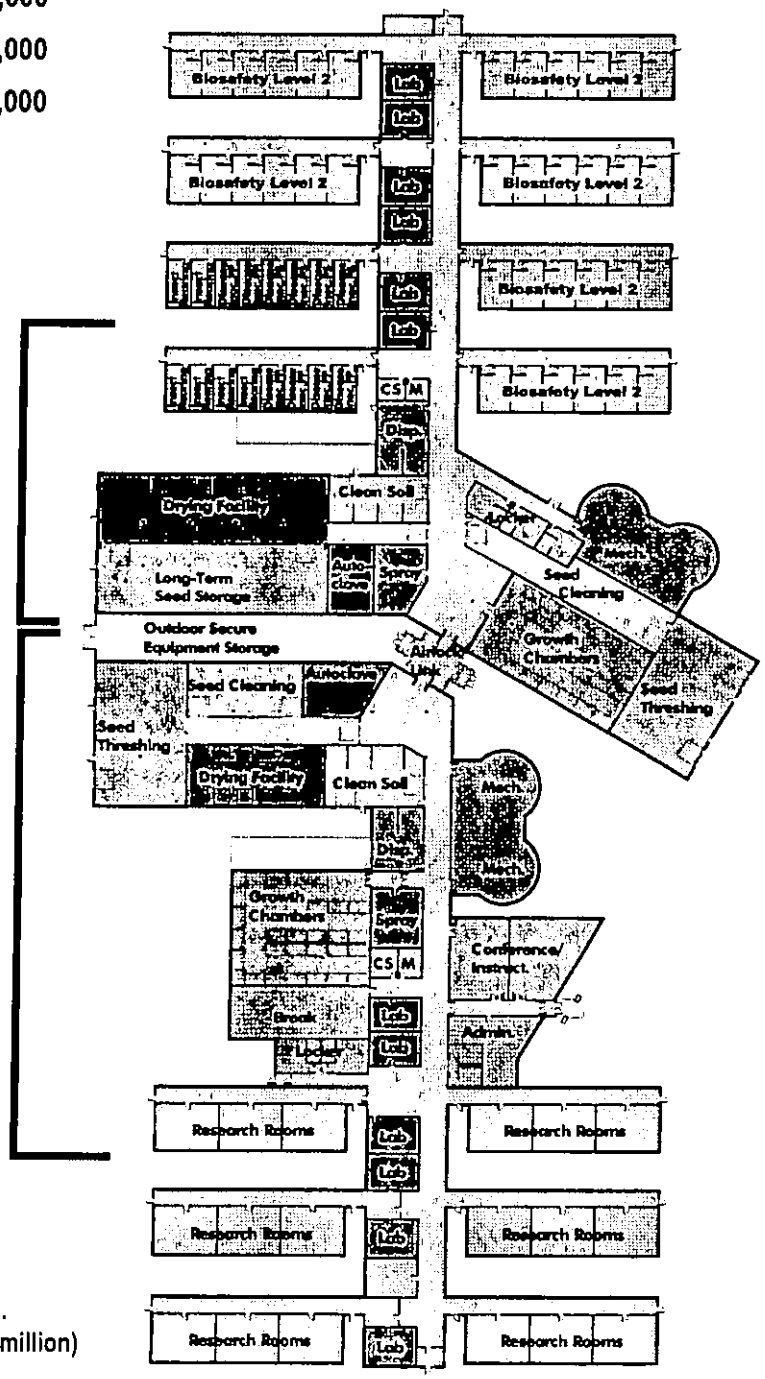
Phase Two ..... **$ 9,000,000**

Remaining Phases **$14,000,000**

Notes:
Prices include provision for heating, air conditioning and essential services to service total facility.
Total price include minimal provision for equipment $375,000 and furniture and fittings $50,000.
Pricing as at 18 July 2006. Includes inflation provision of 8% (Commence Summer 2008). Prices rounded to nearest $10.

Phase Two
Biosafety Level 2 Headhouse and 1 pair of Greenhouses

Phase One
Headhouse and 1 pair of Greenhouses



- A. RESEARCH ROOMS
- B. RESEARCH LABS
- C. GROWTH CHAMBERS
- D. SEED THRESHING
- E. SEED CLEANING
- F. DRYING FACILITY
- G. AUTOCLAVE
- H. CLEAN SOIL STORAGE
- I. SOIL DISPOSAL
- J. SPRAY ROOM
- K. CONF./ADMIN./STORAGE
- L. CIRCULATION/STORAGE
- M. MECHANICAL
- PHASE 2 AREAS

*** Phase I - $7,000,000 authorized in 2005-2007 Biennium. State Bonding Funds ($2.0 million): Other Funds ($5.0 million)**

Main Research Station

2007-09 Major Capital Projects

This general fund capital improvement project was ranked No. 1 by SBARE

Main Station 2007-2009 Biennium - Priority No. 1

Research Greenhouse Complex - Phase II $9,000,000

Project Rationale:

Biosafety Level 2 greenhouse space is needed to conduct research on new crops, new diseases and insect pests using conventional and novel techniques. This type of secure facilities is required for advanced agronomic research and other research areas, including molecular genetics, biotechnology and biochemistry. Specialized research areas in biosecurity, food security and food safety also will benefit from these secure facilities. The smaller individual units will provide areas for focused research in molecular genetics, pathology and entomology. The North Dakota Agricultural Experiment Station (NDAES) needs secure greenhouse space to conduct research on crops that meet consumer and producer demands, and to respond to the threat of bioterrorism.

Project Description:

This project will allow concurrent construction with Phase I (Phase I approved in 2005-2007 legislative session) and will implement the renovation of selected existing greenhouses to address the critical need for state-of-the-art greenhouse space for NDAES researchers. The Phase II project has a high priority ranking because of the current condition of the existing greenhouses and the requirements for expanding AES research needs.

Each greenhouse compartment within a range shall have de-ionized and regular water systems, a fertilizer injection system, heating, lighting, ventilation and environmental controls. Independent room access is required for security purposes and to minimize contamination of rooms by workers and transported plant materials. Approximately 24 compartments, each 800 square feet in size, are needed to meet current and expected future demands for high quality research space.

The headhouse area will include eight laboratories, controlled environment seed storage rooms, a large threshing/storage room, propagating material room, freezer room, three drying rooms (with 15 dryer units) and two large growth chamber areas sufficient for 24 chambers each. The structure shall include restrooms and changing/locker rooms. It will be planned with future expansion in mind to conform to the future needs of NDAES research priorities and goals.

The location of this facility shall be in proximity to other on-campus laboratory research facilities because of the need to transport plant material between buildings in the winter, for access by student labor and for the convenience of graduate students and faculty.

Main Research Station

Research Greenhouse Complex - Phase II

Total Facility **$30,000,000**

(Includes: Headhouse and 3 pair Greenhouses and Biosafety Level 2 Headhouse and 4 pair Greenhouses)

Phase One* ..... **$ 7,000,000**

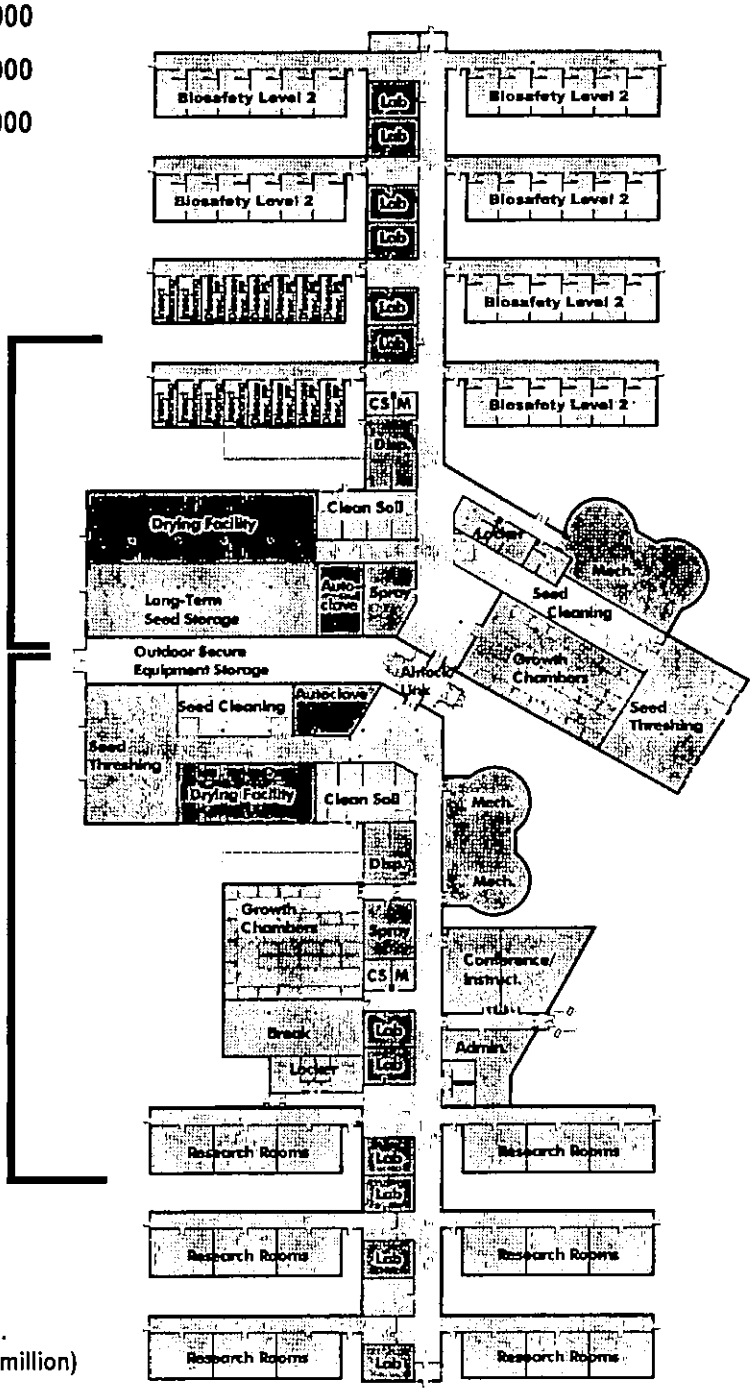
Phase Two ..... **$ 9,000,000**

Remaining Phases **$14,000,000**

Notes:
Prices include provision for heating, air conditioning and essential services to service total facility.
Total price include minimal provision for equipment $375,000 and furniture and fittings $50,000.
Pricing as at 18 July 2006. Includes inflation provision of 8% (Commence Summer 2008). Prices rounded to nearest $10.

Phase Two
Biosafety Level 2 Headhouse and 1 pair of Greenhouses

Phase One
Headhouse and 1 pair of Greenhouses



A. RESEARCH ROOMS
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G. AUTOCLAVE
H. CLEAN SOIL STORAGE
I. SOIL DISPOSAL
J. SPRAY ROOM
K. CONF./ADMIN./STORAGE
L. CIRCULATION/STORAGE
M. MECHANICAL
PHASE 2 AREAS

Phase I - $7,000,000 authorized in 2005-2007 Biennium.
State Bonding Funds ($2.0 million): Other Funds ($5.0 million)

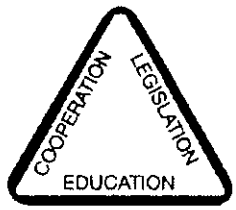
HB 1020
January 15, 2007
Handout #8

North Dakota Farmers Union

PO Box 2136 • 1415 12th Ave SE • Jamestown ND 58401

701-252-2340 • 800-366-NDFU
FAX: 701-252-6584

WEBSITE: www.ndfu.org
E-MAIL: ndfu@ndfu.org



HB 1020
House Appropriations Committee, Education and Environmental Division

Chairman Wald and Members of the House Appropriations Committee, Education and Environmental Division,

My name is Kayla Pulvermacher; I am here representing the members of North Dakota Farmers Union. I am here to testify in support of HB 1020, Budget No. 640, regarding the building of new greenhouses on the North Dakota State University campus.

North Dakota Farmers Union supports North Dakota State University's efforts to build new greenhouses for agricultural research. We believe the vast majority of North Dakota's wealth comes from agriculture. Publicly funded and other agricultural research at our land grant college is important for the future of North Dakota's family farmers and ranchers. Not only do our agricultural producers benefit, but our rural communities and state can continue to grow and prosper as a result.

We strongly urge a do pass on HB 1020.

Thank you Chairman Wald and members of the committee. I will answer any questions at this time.

1/15/2007
HB1020 Extensive Service
Handout #19

NORTH DAKOTA

GRAIN GROWERS

www.ndgga.com

Working for you, the producer!

January 15, 2007

Chairman Wald, Members of the House Appropriations Committee,

For the record, my name is Dan Wogsland, Executive Director of the North Dakota Grain Growers Association. I appear today in support of House Bill 1020, especially as it pertains to the funding of the greenhouses at NDSU.

At the NDGGA annual meeting at our recently completed Dakota Grains Conference in Bismarck, the membership of NDGGA again reaffirmed their support for the NDSU greenhouses by passing a resolution stating that fact.

Research and development is a critical component to any industry in American, none more so than the industry of agriculture. North Dakota farmers are competing in a global market, and we have never experienced a higher level of competition worldwide than we have today. With that as the backdrop, it is crucial that we give our researchers and Extension personnel the capability to give our producers the tools to play on this global stage.

The budget before you provides a number of enhancements, all of which are welcomed and needed. None of these enhancements is more important than the funding of the greenhouses at NDSU. It is vital to the future of North Dakota agriculture to give researchers at NDSU upgraded facilities the new greenhouses will afford if needed plant research is to continue. Not only are new facilities necessary for basic research, they are essential to the retention and recruitment of the very researchers who carry out the work.

Recently the NDGGA Board of Directors were given the opportunity to tour the greenhouse and research facilities at NDSU, just as the members of the Appropriations Committee have done in the past. We were amazed at the cutting edge research that is ongoing at NDSU in terms of agricultural advancements. Conversely, the NDGGA Board was perplexed as to the conditions afforded our researchers by the current greenhouses. NDSU and its researchers are to be commended for their accomplishments in less than ideal conditions.

Additionally, HB 1020 contains enhancements that will be critical to the work of the NDSU Extension Service. NDSU Extension is the first line of the farmers and rancher defense in North Dakota. The information, programming, and hands on help that NDSU Extension provides is a key component in making North Dakota farmers and ranchers successful and profitable.

Agriculture in North Dakota is the state's number one economic component. Investment in this economic engine will pay huge dividends both short and long term for the entire state. The North Dakota Grain Growers Association therefore asks your favorable consideration on HB 1020.

North Dakota Farmers Union

PO Box 2136 • 1415 12th Ave SE • Jamestown ND 58401

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FAX: 701-252-6584

WEBSITE: www.ndfu.org
E-MAIL: ndfu@ndfu.org

11

HB 1020
Senate Appropriations

Chairman Holmberg and Members of the Senate Appropriations Committee,

North Dakota Farmers Union supports HB 1020, Budget No. 640, regarding the building of new greenhouses on the North Dakota State University campus.

NDFU supports North Dakota State University's efforts to build new greenhouses for agricultural research. We believe the vast majority of North Dakota's wealth comes from agriculture. Publicly funded and other agricultural research at our land grant college is important for the future of North Dakota's family farmers and ranchers. Not only do our agricultural producers benefit, but our rural communities and state can continue to grow and prosper as a result.

North Dakota Farmers Union supports funding for the project at the original level, as recommended in the Governor's budget.

We strongly urge your favorable consideration of HB 1020.

NORTH DAKOTA

GRAIN GROWERS

6

HB 1020

www.ndgga.com

Working for you, the producer!

February 26, 2007

Chairman Holmberg, Members of the Senate Appropriations Committee,

For the record, my name is Bob Bahm, Director on the board of the North Dakota Grain Growers Association, as well as a member of the SBARE. I appear today in support of House Bill 1020, especially as it pertains to the funding of the greenhouses at NDSU.

At the NDGGA annual meeting at the 2007 Dakota Grains Conference in Bismarck, the membership of NDGGA again reaffirmed their support for the NDSU greenhouses by passing a resolution stating that fact.

Research and development is a critical component to any industry in American, none more so than the industry of agriculture. North Dakota farmers are competing in a global market, and we have never experienced a higher level of competition worldwide than we have today. With that as the backdrop, it is imperative that we give our researchers and Extension personnel the ability to give our producers the tools to compete in this global arena.

The budget before you provides a number of enhancements, all of which are welcomed and needed. None of these enhancements is more important than the funding of the greenhouses at NDSU. It is crucial to the future of North Dakota agriculture that we give researchers at NDSU upgraded facilities the new greenhouses will afford if needed plant research is to continue. Not only are new facilities necessary for basic research, they are essential to the retention and recruitment of the very researchers who carry out the work.

With this in mind, the North Dakota Grain Growers Association respectfully requests that the Senate Appropriations Committee reinstate the greenhouse funding to its original amount in the Governor's budget, which is $9 million. While the $7 million for the NDSU greenhouses now contained in HB 1020 is certainly welcomed, it is essential that the full $9 million funding be restored; needed greenhouse research facilities at NDSU must be allowed to move forward. NDGGA views this $9 million as an investment in our agricultural future in North Dakota.

Recently the NDGGA Board of Directors were given the opportunity to tour the greenhouse and research facilities at NDSU, just as the members of the Appropriations Committee have done in the past. We were amazed at the cutting edge research that is ongoing at NDSU in terms of agricultural advancements. Conversely, the NDGGA Board was perplexed as to the conditions afforded our researchers by the current greenhouses. NDSU and its researchers are to be commended for their accomplishments in less than ideal conditions.

Additionally, HB 1020 contains enhancements that will be critical to the work of the NDSU Extension Service. NDSU Extension is the first line of the farmers and rancher defense in North Dakota. The information, programming, and hands on help that NDSU Extension provides is a key component in making North Dakota farmers and ranchers successful and profitable.

Agriculture in North Dakota is the state's number one economic component. Investment in this economic engine will pay huge dividends both short and long term for the entire state. The North Dakota Grain Growers Association therefore asks the Senate Appropriations Committee for your favorable consideration on HB 1020, with an increase to $9 million for the NDSU greenhouse facilities.

Thank you!

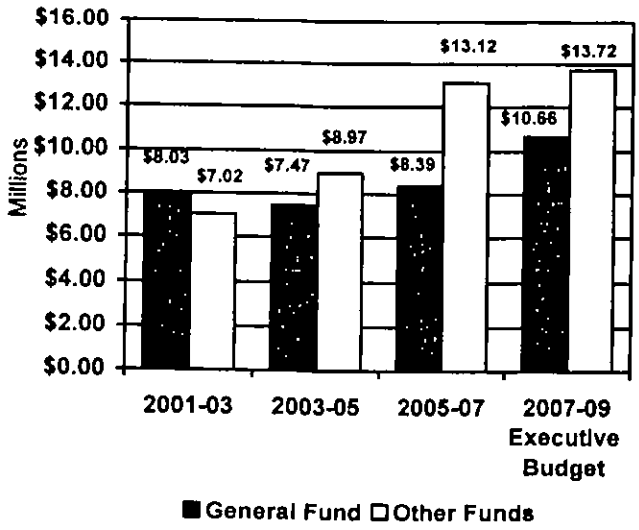
Department 628 - Branch Research Centers
House Bill No. 1020

	FTE Positions	General Fund	Other Funds	Total
2007-09 Executive Budget	95.26	$10,658,084	$13,716,431	$24,374,515
2005-07 Legislative Appropriations	87.26 [1]	8,386,309 [2]	13,119,367	21,505,676
Increase (Decrease)	8.00	$2,271,775	$597,064	$2,868,839

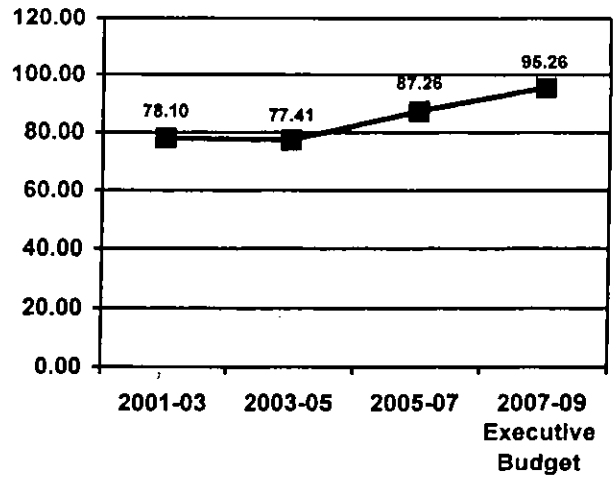
[1]The 2005-07 appropriation is based on 77.41 FTE positions. Section 6 of Senate Bill No. 2020 (2005) authorizes the State Board of Higher Education to adjust FTE positions as needed. A total of 9.85 FTE positions were added pursuant to this section and reported to the Office of Management and Budget.

[2]The Main Research Center allocated $84,000 of general fund appropriation to branch research centers for critical needs. Section 5 of Senate Bill No. 2020 (2005) authorizes that upon approval of the State Board of Agricultural Research and Education and appropriate branch research directors, the director of the Main Research Center may transfer appropriation authority within the North Dakota State University Extension Service, Northern Crops Institute, Main Research Center, and branch research centers.

Agency Funding



FTE Positions



Executive Budget Highlights

	General Fund	Other Funds	Total
Dickinson Research Center			
1. Adds special funds spending authority for a waste management facility as mandated per State Department of Health requirements (emergency measure)		$351,000	$351,000
2. Adds special funds spending authority for a parking lot and landscaping project at the headquarters facility (emergency measure)		$350,000	$350,000
3. Provides funding for an equipment and operating ($35,700) pool	$35,700		$35,700
4. Adds funding for 1 FTE office support staff position	$68,682		$68,682
Central Grasslands Research Center			
5. Maintains funding for the revolving equipment fund	$88,333		$88,333
6. Provides special funds spending authority for equipment over $5,000		$25,700	$25,700
7. Provides funding for an equipment ($11,666) and operating ($35,700) pool	$47,366		$47,366
8. Adds funding for 1 FTE office support staff position	$68,680		$68,680
9. Removes 2005-07 biennium major capital project relating to the Central Grasslands Research Center office addition funded with bond proceeds ($270,000) and gifts, grants, and donations ($80,000)		($350,000)	($350,000)

Hettinger Research Center			
10. Maintains funding for the revolving equipment fund	$88,334		$88,334
11. Provides special funds spending authority for equipment over $5,000		$43,384	$43,384
12. Adds special funds spending authority for operating costs relating to the southwest feeders program and other research		$200,000	$200,00
13. Provides funding for an equipment ($11,667) and operating ($35,700) pool	$47,367		$47,367
14. Adds funding for 1 FTE office support staff position	$68,680		$68,680
Langdon Research Center			
15. Maintains funding for the revolving equipment fund	$88,333		$88,333
16. Provides special funds spending authority for equipment over $5,000		$43,200	$43,200
17. Provides funding for an equipment ($11,667) and operating ($35,700) pool	$47,367		$47,367
18. Adds funding for 1 FTE office support staff position	$68,680		$68,680
19. Adds funding for scab resistance research and the North Dakota Agricultural Weather Network	$25,000		$25,000
North Central Research Center			
20. Provides special funds spending authority for equipment over $5,000		$392,000	$392,000
21. Provides funding for an equipment ($100,000) and operating ($35,700) pool	$135,700		$135,700
22. Adds funding for 1 FTE office support staff position	$68,682		$68,682
23. Adds funding for scab resistance research and the North Dakota Agricultural Weather Network	$25,000		$25,000
24. Removes 2005-07 biennium major capital project relating to the North Central Research Center laboratory and greenhouse project funded with bond proceeds ($440,000) and gifts, grants, and donations ($1,250,000)		($1,690,000)	($1,690,000)
25. Adds funding to complete the North Central Research Center laboratory and greenhouse project (one-time funding) (emergency measure) **(executive budget identified as one-time funding)**	$400,000		$400,00
26. Adds 1 FTE assistant breeder/agronomist position ($152,500) and funding for operating expenses ($40,000) to enhance the pulse improvement program	$192,500		$192,500
Williston Research Center			
27. Provides special funds spending authority for equipment over $5,000		$279,000	$279,000
28. Adds special funds spending authority for operating costs relating to research support		$400,000	$400,000
29. Provides funding for an equipment and operating ($35,700) pool	$35,700		$35,700
30. Adds funding for 1 FTE office support staff position	$68,682		$68,682
Carrington Research Center			
31. Provides special funds spending authority for equipment over $5,000		$588,500	$588,500
32. Adds special funds spending authority for operating costs relating to the department's expanded beef lot research program		$600,000	$600,000
33. Provides funding for an equipment and operating ($35,700) pool	$35,700		$35,700
34. Adds funding for 1 FTE office support staff position	$68,682		$68,682
35. Adds funding for scab resistance research and the North Dakota Agricultural Weather Network	$25,000		$25,000

Other Sections in Bill

Section 4 of House Bill No. 1020 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 branch research centers is appropriated for the purpose designated in the act, grant, gift, or donation for the 2007-09 biennium.

Section 5 of House Bill No. 1020 authorizes the transfer of appropriation authority between the Main Research Center, the branch research centers, NDSU Extension Service, and Northern Crops Institute.

Section 6 of House Bill No. 1020 authorizes the State Board of Higher Education to adjust or increase full-time equivalent positions for the branch research centers and report any adjustments to the Office of Management and Budget.

Section 7 of House Bill No. 1020 authorizes the carryover of any unexpended general fund appropriation and excess income received by the branch research centers.

Section 8 of House Bill No. 1020 provides that the Dickinson Research Center waste management facility ($351,000), headquarters facility parking lot and landscaping ($350,000), and North Central Research Center agronomy laboratory and greenhouse ($400,000) projects are an emergency.

Continuing Appropriations

No continuing appropriations for this agency.

Major Related Legislation

At this time, no major legislation has been introduced affecting this agency.

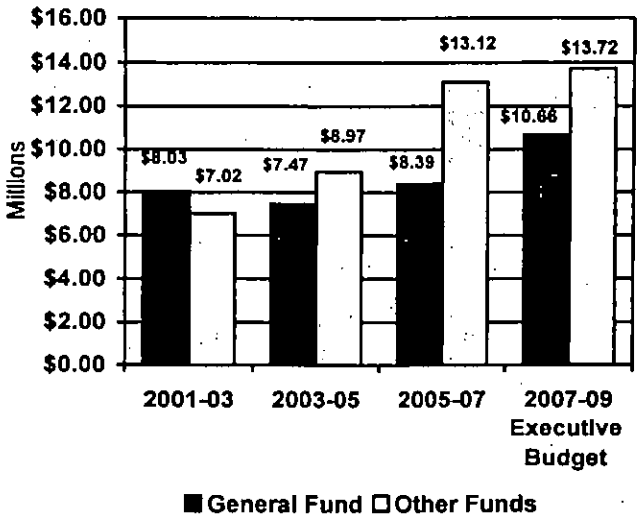
Department 628 - Branch Research Centers
House Bill No. 1020

	FTE Positions	General Fund	Other Funds	Total
2007-09 Executive Budget	95.26	$10,658,084	$13,716,431	$24,374,515
2005-07 Legislative Appropriations	87.26 [1]	8,386,309 [2]	13,119,367	21,505,676
Increase (Decrease)	8.00	$2,271,775	$597,064	$2,868,839

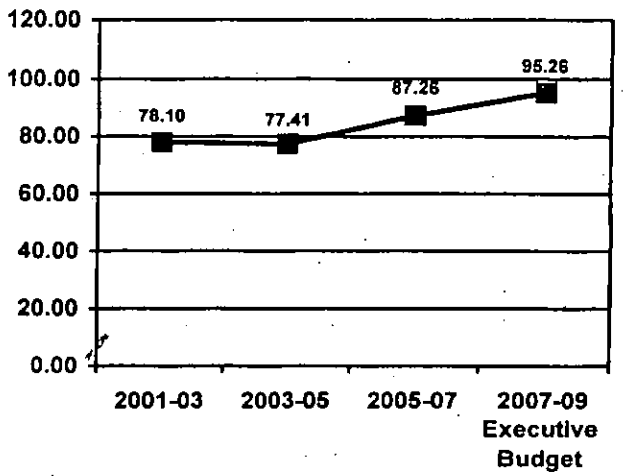
[1]The 2005-07 appropriation is based on 77.41 FTE positions. Section 6 of Senate Bill No. 2020 (2005) authorizes the State Board of Higher Education to adjust FTE positions as needed. A total of 9.85 FTE positions were added pursuant to this section and reported to the Office of Management and Budget.

[2]The Main Research Center allocated $84,000 of general fund appropriation to branch research centers for critical needs. Section 5 of Senate Bill No. 2020 (2005) authorizes that upon approval of the State Board of Agricultural Research and Education and appropriate branch research directors, the director of the Main Research Center may transfer appropriation authority within the North Dakota State University Extension Service, Northern Crops Institute, Main Research Center, and branch research centers.

Agency Funding



FTE Positions



First House Action

Attached is a summary of first house changes.

Executive Budget Highlights (With First House Changes in Bold)

	General Fund	Other Funds	Total
Dickinson Research Center			
1. Adds special funds spending authority for a waste management facility as mandated per State Department of Health requirements (emergency measure)		$351,000	$351,000
2. Adds special funds spending authority for a parking lot and landscaping project at the headquarters facility (emergency measure)		$350,000	$350,000
3. Provides funding for an equipment and operating ($35,700) pool	$35,700		$35,700
4. Adds funding for 1 FTE office support staff position	$68,682		$68,682
Central Grasslands Research Center			
5. Maintains funding for the revolving equipment fund	$88,333		$88,333
6. Provides special funds spending authority for equipment over $5,000		$25,700	$25,700
7. Provides funding for an equipment ($11,666) and operating ($35,700) pool	$47,366		$47,366

8. Adds funding for 1 FTE office support staff position	$68,680		$68,680
9. Removes 2005-07 biennium major capital project relating to the Central Grasslands Research Center office addition funded with bond proceeds ($270,000) and gifts, grants, and donations ($80,000)		($350,000)	($350,000)
Hettinger Research Center			
10. Maintains funding for the revolving equipment fund	$88,334		$88,3
11. Provides special funds spending authority for equipment over $5,000		$43,384	$43,384
12. Adds special funds spending authority for operating costs relating to the southwest feeders program and other research		$200,000	$200,000
13. Provides funding for an equipment ($11,667) and operating ($35,700) pool	$47,367		$47,367
14. Adds funding for 1 FTE office support staff position	$68,680		$68,680
Langdon Research Center			
15. Maintains funding for the revolving equipment fund	$88,333		$88,333
16. Provides special funds spending authority for equipment over $5,000		$43,200	$43,200
17. Provides funding for an equipment ($11,667) and operating ($35,700) pool	$47,367		$47,367
18. Adds funding for 1 FTE office support staff position	$68,680		$68,680
19. Adds funding for scab resistance research and the North Dakota Agricultural Weather Network	$25,000		$25,000
North Central Research Center			
20. Provides special funds spending authority for equipment over $5,000		$392,000	$392,000
21. Provides funding for an equipment ($100,000) and operating ($35,700) pool	$135,700		$135,700
22. Adds funding for 1 FTE office support staff position	$68,682		$68,682
23. Adds funding for scab resistance research and the North Dakota Agricultural Weather Network	$25,000		$25,0
24. Removes 2005-07 biennium major capital project relating to the North Central Research Center laboratory and greenhouse project funded with bond proceeds ($440,000) and gifts, grants, and donations ($1,250,000)		($1,690,000)	($1,690,00
25. Adds funding to complete the North Central Research Center laboratory and greenhouse project (one-time funding) (emergency measure) **(executive budget identified as one-time funding). The House decreased funding for this project by $50,000, from $400,000 to $350,000.**	$400,000		$400,000
26. Adds 1 FTE assistant breeder/agronomist position ($152,500) and funding for operating expenses ($40,000) to enhance the pulse improvement program	$192,500		$192,500
Williston Research Center			
27. Provides special funds spending authority for equipment over $5,000		$279,000	$279,000
28. Adds special funds spending authority for operating costs relating to research support		$400,000	$400,000
29. Provides funding for an equipment and operating ($35,700) pool	$35,700		$35,700
30. Adds funding for 1 FTE office support staff position	$68,682		$68,682
Carrington Research Center			
31. Provides special funds spending authority for equipment over $5,000		$588,500	$588,500
32. Adds special funds spending authority for operating costs relating to the department's expanded beef lot research program		$600,000	$600,000
33. Provides funding for an equipment and operating ($35,700) pool	$35,700		$35,7

34.	Adds funding for 1 FTE office support staff position	$68,682	$68,682
35.	Adds funding for scab resistance research and the North Dakota Agricultural Weather Network	$25,000	$25,000

Other Sections in Bill

Section 4 of Engrossed House Bill No. 1020 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 branch research centers is appropriated for the purpose designated in the act, grant, gift, or donation for the 2007-09 biennium.

Section 5 of Engrossed House Bill No. 1020 authorizes the transfer of appropriation authority between the Main Research Center, the branch research centers, NDSU Extension Service, and Northern Crops Institute.

Section 6 of Engrossed House Bill No. 1020 authorizes the State Board of Higher Education to adjust or increase full-time equivalent positions for the branch research centers and report any adjustments to the Office of Management and Budget.

Section 7 of Engrossed House Bill No. 1020 provides that the Agronomy Seed Farm and branch research centers may elect to exempt certain vehicles used in farming operations from state motor pool requirements.

Section 8 of Engrossed House Bill No. 1020 authorizes the carryover of any unexpended general fund appropriation and excess income received by the branch research centers.

Section 11 of Engrossed House Bill No. 1020 provides carryover authority for the North Central Research Center laboratory and greenhouse project. The 2005 Legislative Assembly authorized $1,690,000 for the project, of which $440,000 is from bond proceeds and $1,250,000 is from gifts, grants, and donations.

Section 13 of Engrossed House Bill No. 1020 provides that the Dickinson Research Center waste management facility ($351,000), headquarters facility parking lot and landscaping ($350,000), and North Central Research Center agronomy laboratory and greenhouse ($350,000) projects are an emergency.

Continuing Appropriations

No continuing appropriations for this agency.

Major Related Legislation

At this time, no major legislation has been introduced affecting this agency.

ATTACH:1

Branch Research Centers

2007-09 Needs-Based Budget

An increase of $8,295,600 or 15 percent above the 2005-07 general fund base would provide funds to address priorities of the State Board of Agricultural Research and Education and related needs of North Dakota agriculture. *The branch Research Extension Centers are including $2,282,700 (of the $8,295,600) in their optional package.*

SBARE ranked all of the projects for Extension, Main Station and branch stations together since a lot of the projects are joint efforts. Please refer to the ranked projects by reviewing the narrative in all of the agencies.

SBARE Ranking **Branch RECs-$2,282,700 (NDSU Main Research Center - $2,777,100)**

No. 1 ranked: AES Equipment and Operating Pool

$940,000 Total General Fund Increase
($490,000 equipment and $450,000 operating)
Main Station $355,000 equipment
Hettinger $11,666 equipment
Streeter $11,667 equipment
Langdon $11,667 equipment
North Central $100,000 equipment

Main Station $200,100 operating
Dickinson $35,700 operating
Central Grasslands $35,700 operating
Hettinger $35,700 operating
Langdon $35,700 operating
North Central $35,700 operating
Williston $35,700 operating
Carrington $35,700 operating

Equipment Pool – A revolving fund for equipment purchases has been extremely successful for the Research Extension Centers to maintain their equipment base. Establishment of this fund has allowed each REC to purchase expensive research equipment on a timely basis, with a degree of regularity. In the 2005-07 legislative session, a small amount of funding ($50,000 to the Main Station for equipment) was used to establish a similar revolving fund for the research departments on the Main Station. To effectively purchase both field and laboratory equipment, which is extremely difficult using competitive grant funds, reasonable resources are needed for the Main Station and RECs to utilize the funds successfully.

Operating Funds – A formula of $6,100 per scientist year (SY) has been used for allocating operating funds to departments on the Main Station. The costs associated with conducting research important to the state continue to increase. An increase in the formula funding to $10,000 per SY is needed to stay in line with inflation and should be sufficient for several years. In addition, increased operating funds for the RECs are needed to offset increases in fixed operating costs, including energy.

No. 2 ranked: REC Support Staff

$462,800 Total General Fund Increase

($462,800 salary and fringe benefits, 7.0 new FTE - (1 FTE at each branch station)

Support Staff (7) – Research Extension Centers have a desperate need for additional office support staff to deal with the changing and increasing demands of today's workplace. Decentralization and an increase in recordkeeping for compliance issues, regulation, scheduling, accountability, data management and other facets of the ever-changing technologies place extreme pressure on a reduced work force to remain current.

No. 2 ranked: Bioproducts/Bioenergy Development

$400,000 Total General Fund Increase

($120,000 salary and fringe benefits, .6 new FTE) – engineering faculty Main Station
($100,000 salary and fringe benefits, 1.0 new FTE) – research specialist Main Station
($80,000 salary and fringe benefits, .4 new FTE) – economics faculty Main Station
($100,000 Main Station operating funds)

Engineering faculty position (60 percent research, 40 percent Extension)
Focus on biomass-based systems that hold great potential for becoming the preferred sources for liquid fuels. Needed research will focus on harvest, collection and transport systems for raw products, including crops, crop residues, animal production coproducts, byproducts from food processing, etc. Additional work will focus on conversion systems (engines, gasifiers, etc.) that will improve efficiency of conversion of cellulosic and other materials to liquid fuel and other products.

Research specialist to assist faculty position

Economics faculty position (40 percent research, 60 percent Extension)
Focus on determining production costs, logistics and market analysis for biobased products. Working closely with colleagues throughout the university system, research would lead to the development of efficient processes for supply chain management and for efficient processing strategies.

No. 3 ranked: Scab (operating, NDAWN, etc.)

$625,000 Total General Fund Increase

($425,000 operating scab)
Main Station operating $350,000
Langdon operating $25,000
Carrington operating $25,000
North Central operating $25,000
($200,000 operating NDAWN)
Main Station operating $200,000

Operating for breeding/genetics, plant pathology, cereal quality and entomology research programs to enhance efforts on scab resistance, pest management and improved quality. Enhanced support of these programs is essential to maintain an advantage over the pest's ability to change and cause major economic losses to the state's farmers, as evidenced by the disastrous outbreaks of scab the last several years.

NDAWN support and field scouting – One research specialist will work on the NDAWN weather network to aid in the development of predictive models for disease development and to distribute timely weather information needed by producers to determine timing of pesticide application. Crop scouts located throughout the state will aid in identifying development of scab in various production regions in the state. Disease development will be monitored and compared to predictive crop models – these highly successful forecasting models continue to be improved as additional information is added to the model.

No. 3 ranked: Pulse Improvement

$470,000 Total General Fund Increase
($200,000 salary and fringe benefits, 1.0 new FTE faculty) - Main Station
($150,000 salary and fringe benefits, 1.0 new FTE assistant breeder) - NCREC
($120,000 operating funds for pulse program)
Main Station operating $80,000
North Central operating $40,000

Pulse improvement program – North Dakota has experienced rapid growth and continued interest in the pulse industry. Acreages of peas, lentils and chickpeas have increased dramatically, particularly in the central and western regions of North Dakota. North Dakota leads the nation in pea production and acreage will continue to increase as demand continues. Pea production provides many benefits to the soil and environment and is an excellent protein source for livestock feed. A faculty position at the Main Station is needed to develop improved varieties of peas, lentils and chickpeas that are adapted to the northern Great Plains. An assistant breeder/agronomist to be located at NCREC will aid the effort to develop improved varieties and evaluate appropriate production techniques.

No. 4 ranked: Waste Management

$280,000 Total General Fund Increase
($160,000 salary and fringe benefits, .8 new FTE) Main Station
($84,000 salary and fringe benefits, .6 new FTE) Carrington
($36,000 operating funds)
Main Station $24,000 operating
Carrington $12,000 operating

Engineering (80 percent research, 20 percent Extension). A faculty member in Ag and Biosystems Engineering will focus on development of innovative waste management systems with an emphasis on developing uses and products from wastes that can generate revenue for the enterprise, minimize odors and reduce costs for production.

Waste management specialist (60 percent research: 40 percent Extension) located at Carrington. To work with animal production, feedlot, engineering colleagues and livestock producers in developing economical and efficient systems.

No. 5 ranked: Host Resistance and Pest Research

$700,000 Total General Fund Increase
($700,000 salary and fringe benefits, 7.0 new research specialists FTE @ $100,000 each)
2 FTE Main Station, 2 FTE Williston, 1 FTE Carrington, 1 FTE North Central, 1 FTE Langdon

Host resistance and pest biology – research specialists (7) will enhance ongoing efforts to more rapidly develop varieties with improved resistance to wheat and barley scab and other diseases affecting major crops in the state and to understand the biology of the pathogens important to the cropping systems in the state. Two specialists will be located at Fargo (Main Station), two at Williston REC (one to focus on barley improvement with supervision from Main Station scientists) and one each at the CREC, NCREC and LREC.

No. 6 ranked: Swine Specialist

$100,000 Total General Fund Increase
($80,000 salary and fringe benefits, .4 new FTE) - Main Station
($20,000 operating) - Main Station

Swine specialist – At one point in time, North Dakota produced more than 500,000 market hogs per year and had more than 2,000 producers. Presently North Dakota produces 160,000 market hogs and has 450 producers. However, because of its economic impact, interest in increasing swine production in the state has grown recently. Each dollar of return from pigs marketed turns over 3.49 times for feed, labor, trucking, vet service, utilities, etc. This industry needs technical expertise, management assistance and an unbiased resource that can help the state develop its hog industry. A swine specialist that is 60 percent Extension, 40 percent research is needed to fill this role.

No. 7 ranked: Livestock Development

$58,000 Total General Fund Increase

($40,000 salary and fringe benefits, .2 new FTE) - Main Station

($18,000 operating) - Main Station

Livestock industry specialist (80 percent Extension, 20 percent research)

There are many driving forces, including the desire of many ag producers to grow their existing enterprises and/or to diversify their operations, utilization of potential feedstuffs that are shipped to other states for their livestock operations, opportunities to enhance production of feedstuffs to service a growing North Dakota industry, use of coproducts emerging from the rapidly expanding bioenergy/bioproducts enterprises as feedstuffs, and utilization of grazing capacity in range and managed areas. A faculty position will work continually with colleagues and industry to evaluate opportunities and to provide information that can be used for timely decision making.

No. 7 ranked: Pest Management

$128,000 Total General Fund Increase

($128,000 salary and fringe benefits, .8 new FTE) - Carrington

Area pest management specialist – This 80 percent research, 20 percent Extension position is critically needed to provide information to area growers affected by crop diseases. The position will be located at the Carrington REC. The CREC is in the center of great crop diversity, an area that has been greatly affected by severe outbreaks of many major diseases.

No. 8 ranked: Pest Application Research

$90,000 Total General Fund Increase

($90,000 salary and fringe benefits, 1.0 new FTE, research specialist) - Main Station

Improving pesticide application efficiency – One research specialist is needed to continue efforts to identify the best methods to apply pesticides effectively and efficiently to control scab.

No. 9 ranked: Livestock/Range

$322,000 Total General Fund Increase

($294,000 salary and fringe benefits, .7 for each of the 3 new FTE @ $98,000 each)

3 FTE - 1 FTE Streeter, 1 FTE Hettinger, 1 FTE Main Station

($28,000 operating)

Main Station $12,000

Central Grasslands $8,000

Hettinger $8,000

Three livestock/range specialists (70 percent research, 30 percent Extension) to compare whole-systems management of organic, natural, grass-fed and conventional beef production systems, as well as the relationship of these systems to the environment. Help determine market causes affecting cattle sales. Feedlot research will focus on evaluating coproduct use for efficient livestock production. One specialist will focus on animal health issues. The specialists will be located at the Central Grasslands REC near Streeter, Hettinger REC and the Main Station.

No. 10 ranked: Irrigation

$180,000 Total General Fund Increase

($180,000 salary and fringe benefits, 1.0 new FTE, research scientist) - Williston

Irrigated agriculture is becoming increasingly important in northwestern North Dakota, with high-value crops evident in the region. One research scientist is needed to evaluate irrigated production practices in North Dakota, to be stationed at the WREC.

No. 11 ranked: Food Industry

$250,000 Total General Fund Increase

($120,000 salary and fringe benefits, .6 new FTE faculty) - Main Station
($100,000 salary and fringe benefits, 1.0 new FTE faculty) - Main Station
($30,000 operating funds) - Main Station

Faculty position (60 percent research, 40 percent Extension)
Position in enhanced processing of existing and new crops. Will have expertise in processing/engineering/plant operations. Will work in collaboration with colleagues throughout system to assure that supply chains, as well as processing, are optimized. Will work in close collaboration with business/marketing and technical associates in agricultural business development program above.

Research specialist to assist faculty position.

No. 12 ranked: Sustainable Agriculture

$54,000 Total General Fund Increase

($54,000 salary and fringe benefits, .3 new FTE) - Dickinson

North Dakotans support current production agriculture, but also see a need to explore long-term sustainability. The Dickinson REC is exploring new sustainable agricultural opportunities through research and Extension efforts, including coordination of the Professional Development Program sponsored by the USDA Sustainable Agriculture Research and Education Program. These research and Extension programs will help rural North Dakotans develop new sustainable systems to enhance the economic viability of rural areas and to meet their economic, social and environmental needs within a diversified agriculture. Additional support for these efforts is needed, as is a strong program of direct outreach to farmers and ranchers. One sustainable agricultural specialist (70 percent Extension, 30 percent research) is needed at Dickinson to provide this support and outreach to southwestern North Dakota.

AGENCY OVERVIEW

Langdon Research Extension Center

North Dakota Agricultural Experiment Station

Agency Statutory Authority

Century Code 4-05.1

Agency Description

The 100-year-old (2007) Langdon Research Extension Center (LREC) is one mile east of Langdon, N.D., on U.S. Highway 5. 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 in northeastern North Dakota and has North Dakota's highest precipitation rates, coolest temperatures and richest productive soils. The environment 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 North Dakota.

Some very positive changes have occurred with the start of the 21st century. Since 2001, the LREC has significantly enhanced its overall agricultural research programming with the addition of a crop protection scientist, a director who also serves the region with an emphasis in rural economic/community development, an 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 serves more than 40 farm families. In addition, a full-service agricultural-based learning center was constructed in 2004. It greatly enhances outreach and Extension efforts delivered to the region's agricultural industry. Finally, additional programming has been created and 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 region's 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 region's natural resources.

NDSU
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ND Agricultural Experiment Station

AGENCY OVERVIEW: Langdon Research Extension Center

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 June 14, 2006. 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

Acquiring and maintaining adequate resources that allow the LREC to remain responsive to agricultural production problems and challenges for producers, as well as rural community issues, in North Dakota is essential to fulfill the agency's mission.

Agricultural production issues on the front burner for the next five years include the need to increase efforts that research cereal and row-crop disease pressures so prevalent in northeastern North Dakota. LREC disease research programming is at its peak. Additional support staff for the LREC crop protection scientist is needed to increase disease research projects demanded by the region's producers. In addition, the impending retirement of a full-time disease research scientist, forced to be funded 100 percent with grant dollars partly because of a 5 percent budget cut in 2003, will need hard dollars to refill that position and maintain our current level of disease research.

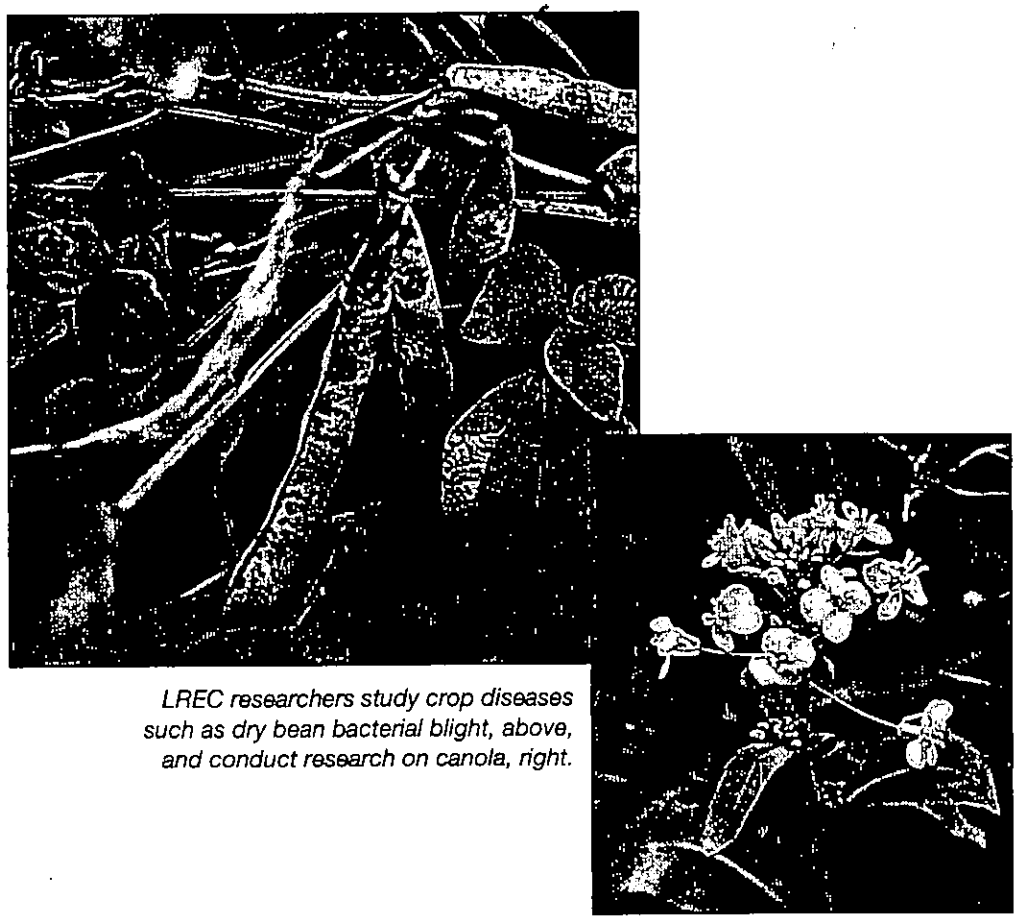
The dramatic increase in the biofuels industry, principally biodiesel using canola, poses another critical research need for the LREC, as well as North Dakota's renewable fuels industry. While the processing industry is in north-central North Dakota (although an effort is under way to construct a 15 million gallon-per-year canola-based biodiesel processing plant in Cavalier County), northeastern North Dakota counties served by the LREC produced 46 percent of the state's 2005 canola crop. Additional resources for canola research at the LREC on variety development, weed control and diseases to increase canola production will assist biodiesel processors run at full capacity, giving them a much better outlook for long-term success.

Unexpected significant increases in energy costs place a burden on the overall operation at the LREC. State fleet, fertilizer and other inputs, and heating/cooling costs, have increased more than 30 percent, compared with the last biennium. Currently, to cover these operating increases, resources need to be taken from other budget items to pay the bills.

In an effort to implement the recommendations of the Report of the Roundtable for a more responsive university system for North Dakotans in the 21st century, additional support is needed. The successful completion of a learning center to assist the LREC become an engine for rural economic and community development and provides a resource to implement the roundtable recommendations. Additional resources supporting this new program are needed to pursue such things as economy diversification and value-added agriculture.

Langdon Research Extension Center

- Conducted disease research in collaboration with the Main Station, providing valuable results for producers almost immediately
- Developed a proven track record of conducting transgenic crop research in a safe manner
- Maintains valuable collaborations on many research programs with other Research Extension Centers, universities and Main Station plant breeders, including the hard red spring wheat, hard red spring wheat advanced elite, durum, two-row barley and F1 potato nurseries
- Has more than 35 farm families enrolled in the Farm Business Management Program
- Conducted research on canola that helped this crop be a main enterprise throughout North Dakota, not just the northeastern part of the state
- Created a program that is addressing the dependence between producers and rural communities through the LREC's Vic Sturlaugson Learning Center
- Hosted 491 educational events serving 8,067 clients at the Vic Sturlaugson Learning Center since it opened two years ago
- Works in close collaboration with the Devils Lake Region Partnership, committing the LREC as an engine for economic development
- Conducts variety testing and provides information on 16 crops grown in North Dakota
- Provides producers with unbiased variety research results in specific localities by planting, maintaining and harvesting off-station research plots in five outlying counties



LREC researchers study crop diseases such as dry bean bacterial blight, above, and conduct research on canola, right.

AGENCY OVERVIEW

Carrington Research Extension Center

North Dakota Agricultural Experiment Station

Agency Statutory Authority

Century Code 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-1960s 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 important in that the research program can address crops and issues that represent a significant part of agriculture in North Dakota.

The research effort at the Carrington center focuses on these general program areas: traditional crop variety evaluation, crop production and management, alternative crop development, cropping systems, irrigation, integration of crop and livestock production, intensive cow/calf production, beef cattle feeding, feedlot management, bison nutrition, aquaculture, 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 three area Extension specialists base their educational programming from the center. The Extension program emphasis areas addressed by these specialists include agronomy (crop production and crop pest management), livestock (livestock systems) and livestock (waste 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 and refined crop and livestock management guidelines are shared with all agricultural constituencies as their needs and concerns are identified.

The Carrington center operates on a land base of around 1,450 acres. Of this total, about 700 acres are leased or rented to supplement the research, seed and forage 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 the headquarters unit with buildings and equipment for processing and storage of foundation seedstocks, equipment maintenance and storage, research laboratory and a residence. The headquarters building has offices for research and Extension staff and large

NDSU
North Dakota State University
ND Agricultural Experiment Station

meeting rooms for university, community and industry educational meetings. The livestock unit includes research facilities that can accommodate around 500 head. It includes feed and forage storage, feed mill, pole barns, equipment storage, a residence, and extensive pens and feedlots.

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 ongoing 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 June 14, 2006. 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 Carrington Research Extension Center requires a capital expansion of the existing headquarters facility to accommodate expanding efforts within the center's research and educational program areas. These programs have grown in recent years in response to broad constituency demands. As this growth has occurred, we find that providing adequate office, classroom and work space for the expanded program efforts is increasingly difficult.

Additional state funding for the core program at the Carrington center needs to be secured to allow us the basic capabilities to adequately support and conduct our baseline research and Extension programs. Funding patterns through the years have not kept pace with inflationary costs, capital improvement needs and a significantly aging equipment inventory. Further enhancement to the core program would result in the necessary strengthening of our basic operational and support infrastructure for the primary crops and livestock research programs. A lack of infusion of state funds to the core program will seriously compromise the center's ability to compete for grant funds, thereby accelerating a decline in our ability to address the diverse and complex problems of our constituency.

The CREC has a significant lack of technical support for the CREC and Main Station scientists who lead very diverse research programs. The majority of the center's technical support staff is financed with grant-based funding. This is precarious at best and has resulted in inadequate technical support for critical scientists.

The center has need for a series of physical plant improvements beyond the headquarters facility. These improvements include renovations and construction projects that will improve the capabilities of the agronomy, livestock and seedstocks programs. Examples of the most critical facility needs are a combined shop-laboratory-office at the livestock unit, a machinery storage building and an agronomy laboratory.

An additional important issue that must be referenced is the limited land base that is owned by the center (North Dakota) relative to the total land base required to implement the current programs at Carrington. For years, the Carrington REC has operated on a land base of around 1,450 acres. Of this total, about 700 acres are secured through annual rental arrangements with multiple landlords. This heavy reliance upon a willing group of landowners 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 center's mission.

Carrington Research Extension Center

- Became a research leader in the USDA's National Sclerotinia Initiative: the environment and experiences of staff at the Carrington center make it the only site in the nation where sclerotinia disease control is investigated on all crops — sunflowers, canola, dry beans, soybeans and dry peas — in this initiative
- Implemented a plant pathology research effort that addresses as many disease issues as center resources allow, including scab in small grains, sclerotinia in broadleaf crops and diseases in pulse crops
- Established a series of research projects that are designed to investigate the effectiveness of nontraditional crop inputs and provide growers with an unbiased assessment of the inputs' impact on crop performance
- Completed the 20th year of a long-term cropping systems research project to evaluate the complexities of farming practices and biological systems on crop productivity, including crop rotations, nitrogen fertility levels and tillage systems
- Developed a series of off-station sites, including Oakes, Wishek, LaMoure, Dazey, Robinson, Rugby, Churches Ferry and Newburg, for research on variety performance, disease control strategies and farming practices
- Completed 19 feedlot studies in the past three years, using 2,438 head of beef cattle
- Conducted extensive trials with the coproduct feeds produced in North Dakota, including distillers grains and solubles from ethanol production, canola meal, sunflower meal, corn gluten feed from fructose processing, wheat middlings from wheat and durum processing, barley malt, soybean hulls, potato byproducts, beet pulp and molasses products
- Was instrumental in research that identified value and utilization of field peas in beef rations, including a positive impact on carcass quality and tenderness of meat from beef fed peas in a feedlot diet
- Found that specific bedding materials, wind protection and good management can mitigate severe weather by increasing animal performance, improving carcass quality and tripling the amount of sequestered nitrogen in manure for cropland fertilizer
- Installed a center pivot irrigation system that possesses state-of-the-art variable water management capabilities for use in both agronomy research and producer demonstrations
- Provided extensive annual evaluations of improved crop varieties and hybrids of 26 different crops
- Initiated experiments to study new tillage systems and fertilizer placement strategies

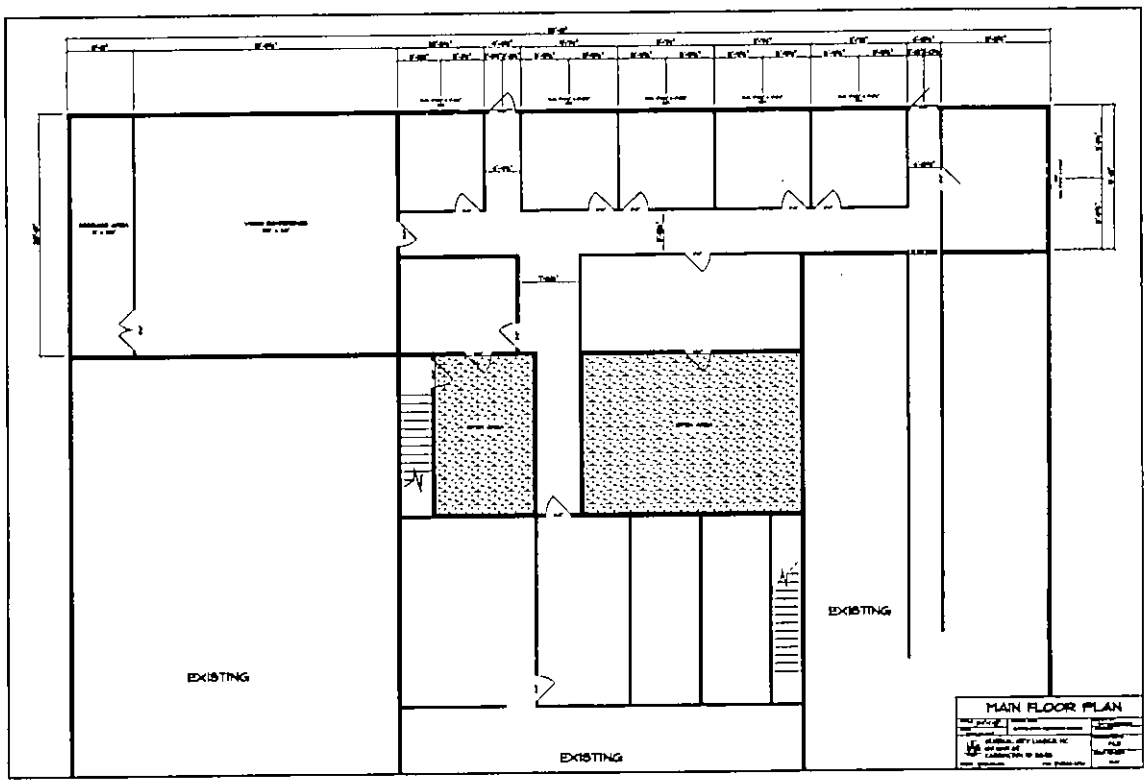
Center staff serve ribeye steaks from beef fed field peas to the CREC Advisory Board. CREC research indicates field peas have a positive impact on carcass quality and meat tenderness.

2007-09 Major Capital Projects

Carrington Research Extension Center

Headquarters Office Addition — $465,000

The current headquarters facility of the Carrington Research Extension Center was completed in 1986. The facility formulated the concept of the "Research Extension Center" in North Dakota, which brought research and Extension staff into one facility. No state general funds were used to construct the Carrington headquarters facility. All funding was raised locally from area agricultural constituents and foundations. The proposed headquarters addition would include a dedicated room for videoconferencing and computer-based instruction that were technologies not apparent when the current facility was designed. The proposed addition also would provide additional office space, conference room and space for educational equipment storage. The current facility is fully utilized, with some staff located in other buildings not suited for joint research and Extension programming. As a result, Carrington is unable to effectively accommodate other staff to embrace expanding technologies and new programs.



AGENCY OVERVIEW

North Central Research Extension Center - Minot

North Dakota Agricultural Experiment Station

Agency Statutory Authority

Century Code 4-05.1

Agency Description

The NCREC was established in 1945 and is one mile south of Minot on U.S. 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, peas, lentils and chickpeas, in addition to the conventional crops of hard red spring and durum wheat, barley, flax, sunflowers and oats. 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 June 14, 2006. 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

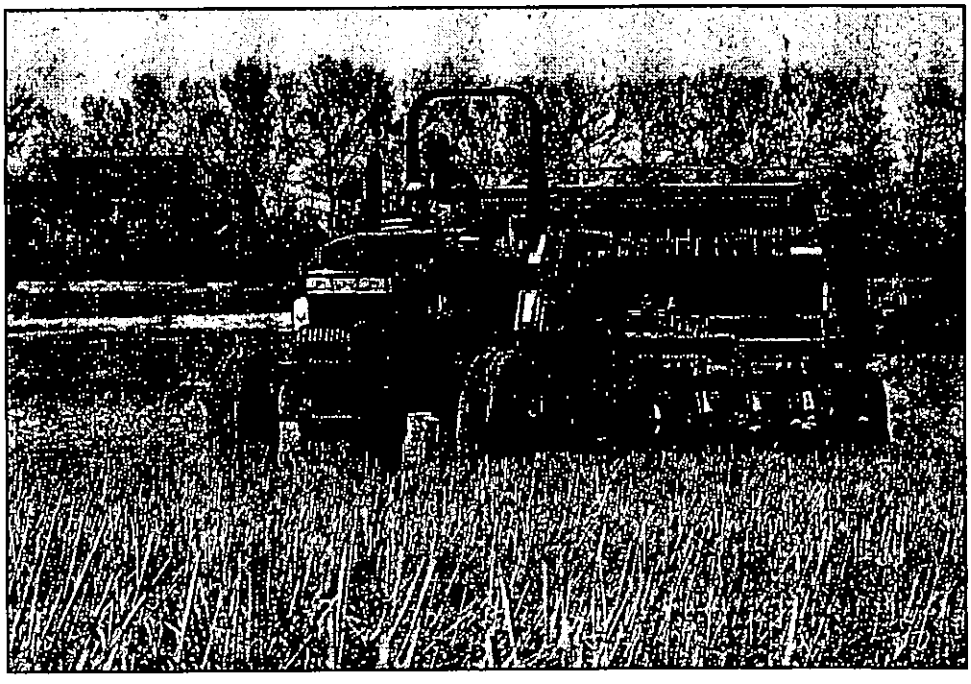
AGENCY OVERVIEW: North Central Research Extension Center - Minot

Agency Future Critical Issues

- Complete the agronomy research laboratory and greenhouse building project
- A machine storage building for weather protection, and security of farm machinery and equipment, and to stop renting facilities from neighbors
- A staff position to support the increased administrative workload
- Base funding for personnel to address the research and Extension needs for canola and pulse crops due to the increase of processing plants in the Minot area
- Dramatically increased fuel, fertilizer, energy and operational costs
- An addition to the headquarters/office/technology transfer building
- Removal of old seed house

North Central Research Extension Center - Minot

- Produced, conditioned and distributed foundation seed of several new NDSU varieties, including Glenn and Howard hard red spring wheat, Divide and Grenora durum, Souris oats and Sierra, Dylan and Troy chickpeas
- Accelerated the availability of new crop protection products for minor crops, such as sunflowers, dry peas, lentils, chickpeas, canola and flax
- Conducted research and demonstrations on straight combining canola rather than swathing to reduce production costs, which shows that using a dessicant and straight combining can be a viable option and could reduce green seed count
- Has shown successful and economical control of volunteer canola in several North Dakota crops
- Demonstrated that crop sequence will affect disease levels in canola
- Established a long-term crop rotation study
- Conducted residue trials in cooperation with the USDA that led to registration of new herbicides for controlling weeds and insects in North Dakota crops, such as canola, sunflowers, flax, dry beans, dry peas, lentils, wheat, barley and millet
- Demonstrated methods that reduced densities of common milkweed, which is moving from roadsides into crop production fields, by 40 percent to 95 percent
- Conducted Extension outreach programs, such as crop pest clinics, field tours, meetings and workshops that teach producers, agricultural industry leaders, private crop consultants and others about new alternative crops and their best production systems
- Worked closely with the Minot Area Development Corporation on new agriculture processing industries and containerized intermodal shipping of agricultural products internationally
- Became heavily involved in energy-from-agriculture projects, such as biomass for cellulosic ethanol production
- Hosted the North Dakota Dry Pea and Lentil Association (now the Northern Pulse Growers Association) annual meeting for the past 13 years
- Construction of Agronomy Research Laboratory and Greenhouse



An NCREC researcher seeds canola with an 80-horsepower tractor running on 100 percent canola biodiesel.

FACILITIES

North Central Research Extension Center

Agronomy Laboratory and Greenhouse

Jan. 18, 2007 Sections 902.3 & 902.5

Requested Action:

NDSU requests authorization to carry over $1,690,000 (or any remaining unused balance) of the total authorization approved in 2005-2007 for the agronomy research laboratory and greenhouse at the North Central Research Extension Center.

Background Information:

On April 14, 2004, NDSU requested and was granted authorization by the SBHE to proceed with fundraising efforts for a new agronomy research laboratory and greenhouse at the North Central Research Extension Center. NDSU subsequently sought and received authorization at the Jan. 27, 2005, SBHE meeting to amend its 2005-07 budget request to increase the cost of the project to $1,690,000 and to change the source of funding for the project from $750,000 in gifts, grants and contracts to $1,250,000, along with $440,000 from state bonding. The project was included and was authorized by the Legislature in SB 2023. The 2007-2009 executive budget included an additional $400,000 for the completion of the remaining alternates in the architect's plan.

The SBHE authorized NDSU to proceed with the project at its May 17, 2005, meeting. Construction began in August 2006, and as of today, the shell of the project has been completed. The final project completion date is expected to be July 2007.

The 2007-2009 executive budget included an additional $400,000 for the completion of the remaining alternates in the architect's plan.

Project Description:

The new research lab will create a more efficient flow of materials from seed preparation through harvesting, seed cleaning and sample analysis. A greenhouse, spray chamber and growth chamber will fill a critical void in the NCREC's research capabilities, completing its field research with the ability to conduct studies under controlled conditions. The lab will provide a safer and cleaner working environment, as well as a climate-controlled area for germplasm archives. It also will provide a work environment that:

- Ensures more accurate and detailed production information that can be used to optimize yields
- Enables the discovery and development of new cropping practices and pest management methods, which helps ensure that producers have the latest technology to combat pests and optimize soil fertility
- Is more suitable for oil and protein analysis using the NIR/NMR; since 1999, this equipment has saved NDSU nearly $250,000, compared with commercial analysis
- Eliminates elevators and stairs by locating all rooms on one floor
- Provides temperature-controlled areas to eliminate data inconsistencies that occur from temperature fluctuations
- Increases available working areas for crop production research, including pest diagnostics, seed treating, counting, weighing, packaging, drying, washing, dissecting, rating, etc.
- Enhances education and outreach programs

The addition of a greenhouse to the new research lab also is desired. Local and NDSU Main Station (Fargo) greenhouse research options are restricted due to limited greenhouse space, as well as logistical and time constraints. A new greenhouse will create opportunities to conduct preliminary crop evaluation and weed, disease and insect studies prior to the growing season. Controlled conditions will provide opportunities to study the influence of soil pH, fertility, relative humidity, temperature, etc., on crop and pest management. This, along with the enhanced educational activities that a greenhouse would provide, makes it a necessary component of the project.

Central Grasslands Research Extension Center

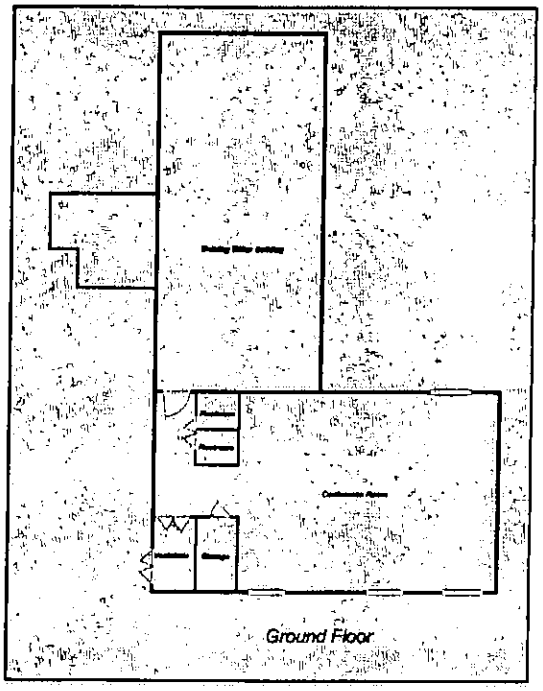
Office Addition

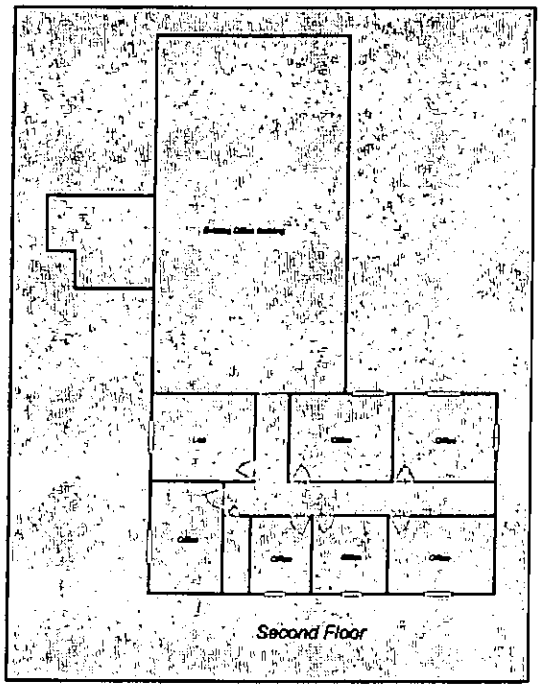
The addition to the Central Grasslands Research Extension Center (CGREC) office building was included as priority No. 2 by the State Board of Agricultural Research and Education. This addition is 30 feet by 50 feet on two floors for a total of 3,000 square feet. This project was funded by the 2005 Legislature at $350,000, with $270,000 bonded and the rest raised locally.

This addition will contain a conference room on the main floor, which will be equipped with high-speed Internet and videoconferencing equipment. The second floor will include six offices and a laboratory. This addition will allow for all the staff at the CGREC to have individual offices. In addition, it will allow cooperating scientists working at the CGREC to have an office equipped with computers and high-speed Internet service. The bids were let for construction in June and construction began in late July. On Jan. 1, 2007, the building was enclosed and the interior work was progressing nicely. A completion date of late February is expected.

Construction Costs

General contractor	$207,000
Mechanical	$46,875
Electrical	$33,325
Fire escape stairs	$4,800
Architect	$27,000
Miscellaneous	$15,000
Furnishings	$16,000
Total	**$350,000**





2007-09 Major Capital Projects

North Central Research Extension Center
Agronomy Laboratory and Greenhouse

Requested Action:

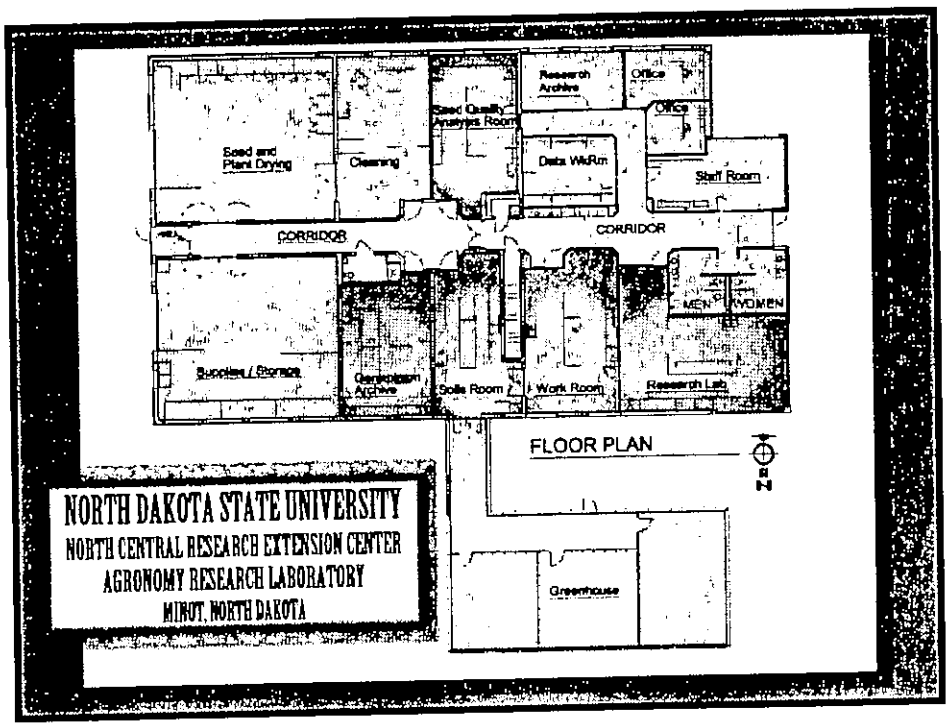
Authorization and funding to complete the agronomy research laboratory and greenhouse at the North Central Research Extension Center.

Background Information:

The North Central Research Extension Center's agronomy research laboratory and greenhouse was included in the 2005 legislative session's SB2023, which authorized $440,000 toward construction of the facility. The Minot area community raised and committed $1.1 million to the project. Project delays (removal of old building); cost increases of steel, concrete and fuel; and project bid timing all contributed to an increase in the total cost of construction. The architect was asked to design the project with the base bid to be "shell only" and with various alternates to finish off the interior up to our level of funding. Bid opening occurred on June 22, 2006. Funding was adequate to begin site preparation, base building (construct the shell of lab and greenhouse) and two of the seven alternates. Site preparation and construction began in August. The $400,000 included in the governor's budget will complete construction of the remaining alternates in the architect's plan.

Authorization

2005-07 authorization carried over	$1,690,000
2007-09 Governor's budget increase	$ 400,000
Total Authorization	$2,090,000



2007-09 Major Capital Projects

North Central Research Extension Center
Agronomy Laboratory and Greenhouse

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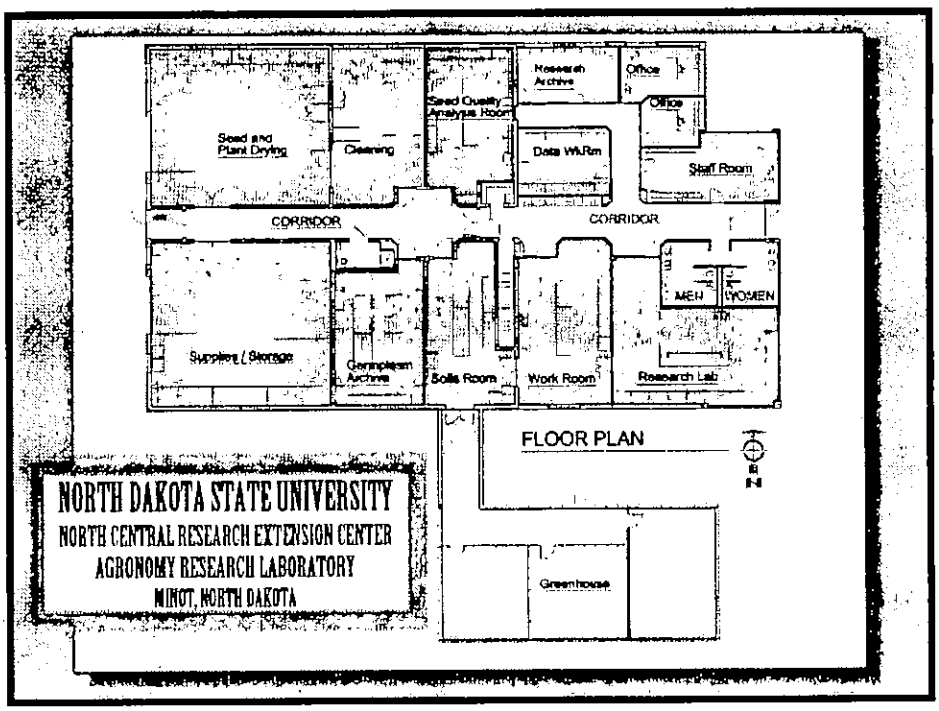
Authorization

2005-07 authorization carried over	$1,690,000
2007-09 Governor's budget increase	$ 400,000
House Amendment	($50,000)
Total Authorization	$2,040,000

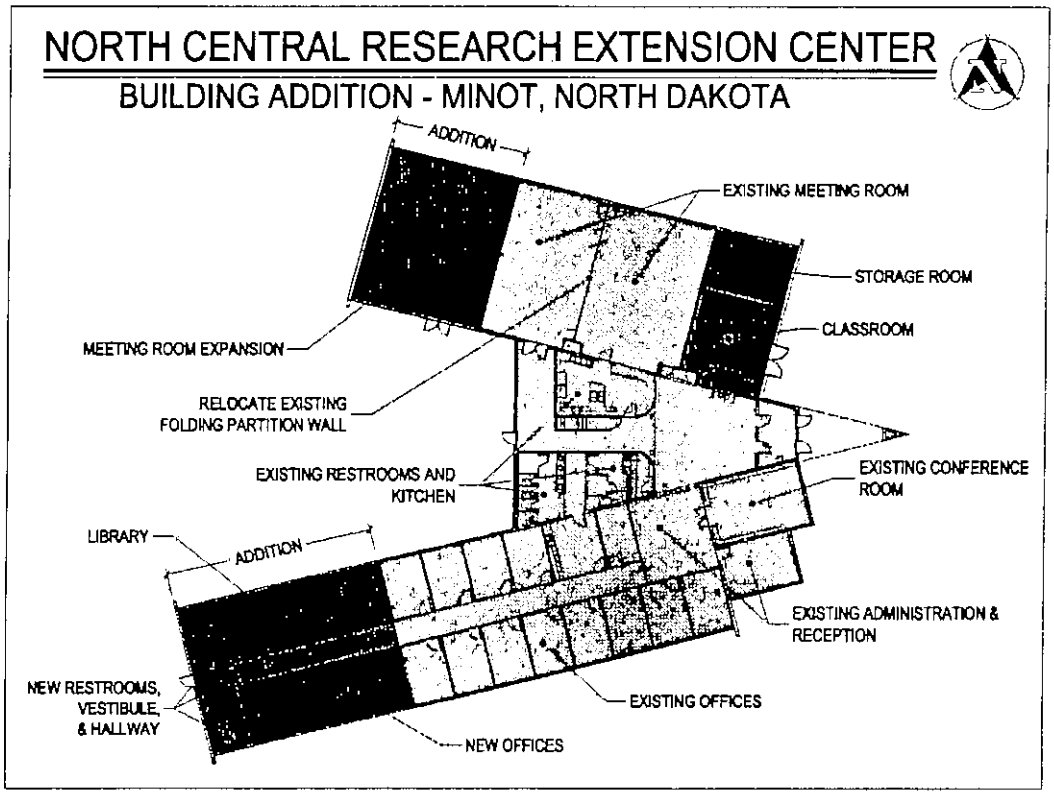


2007-09 Major Capital Projects

North Central Research Extension Center

Office and Technology Transfer Building Addition $420,000

All offices in the current building are occupied, so workstations have been set up in the room designed to be the electronic library. The use of videoconferencing and other meetings in the facility have exceeded our expectations. This project would add office and meeting room space, relocate library and storage space and establish more multiple-purpose/videoconferencing rooms.

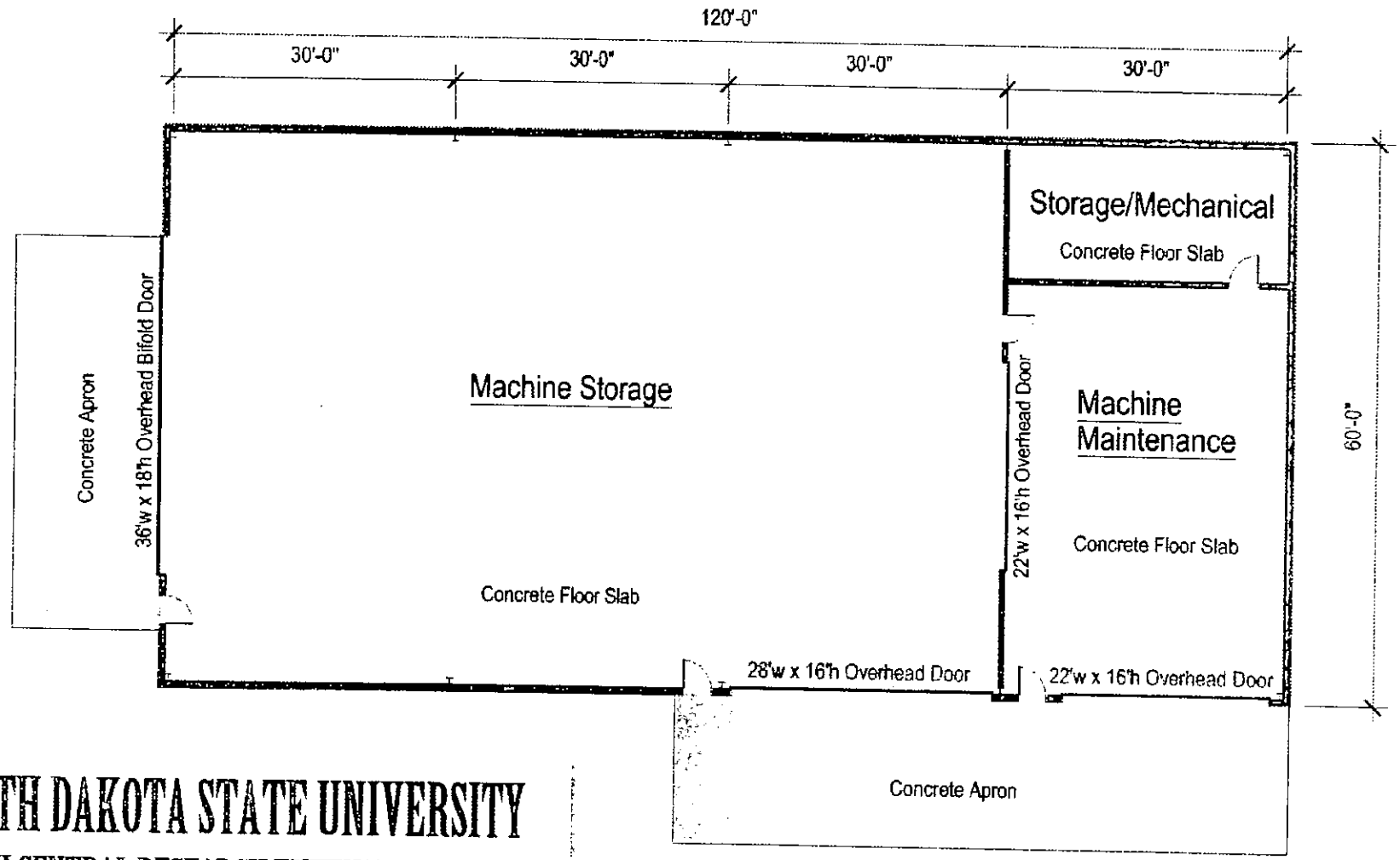


Construction Cost Options

The following opinion of probable construction cost should be used only as a guide in reviewing and evaluating a budget for this project. Construction costs are dictated by quality, project size, season of year, material availability, labor, phasing, inflation, etc. The accuracy of the project budget will continually be monitored and adjusted as the project is developed. Bids from contractors will be used as the final quote and will give a firm evaluation of the project.

South Wing Addition 1,962 sf @ $105/sf	$206,010
Option 'A' – North Wing Addition 1,332 sf @ $105/sf	$139,860
Existing Space Remodeling	$ 15,130
A/E/C Services	$ 39,000
Sitework	$ 20,000
Total Construction Cost	**$420,000**

Attachment B



NORTH DAKOTA STATE UNIVERSITY

NORTH CENTRAL RESEARCH EXTENSION CENTER

MACHINE STORAGE BUILDING

MINOT, NORTH DAKOTA

Nester • Davison • Larson

NESTER DAVISON LARSON ARCHITECTS 2705 4TH AVENUE NW □ MINOT, ND 58703
TELE: (701) 852-4178 □ FAX: (701) 852-4179 □ EMAIL: tndarch@srt.com

January 19, 2007

Preliminary Estimate of Probable Costs:
Machine Storage Building
North Central Extension Research Center Addition
Minot, North Dakota

OPINION OF PROBABLE CONSTRUCTION COST

• Building Construction Costs	Est. cost $277,500
• Civil/Site Costs	Est. cost $ 10,000
• Utility Costs	Est. cost $ 5,000
• Contractor General Conditions	Est. cost $ 7,500
• A/E Fees	Est. cost $ 25,000
• **Total Project Costs**	**Est. cost $325,000**

AGENCY OVERVIEW

Dickinson Research Extension Center

North Dakota Agricultural Experiment Station

Agency Statutory Authority

Century Code 4-05.1

Agency Description

Located on the prairie biome, the Dickinson Research Extension Center has created a relationship of harmony and trust with the people in the 13-county region south and west of the Missouri River. In the first century of service (1905-2005), the DREC assisted agricultural producers in solving production problems with agronomy, animal science and range science while implementing changes in technology.

The DREC has pioneered work in eight major areas: agronomy, beef management, biosecurity, cropping systems, horticulture, range management, sustainable agricultural practices and waste management. The uniqueness of each research discipline has been evident. Faculty and staff have committed to engaging people of the region in a self-empowerment process, which identifies current economic opportunities and preserves the natural resources for future generations. Research data and producer ideas are compared continually so the DREC can leverage the latest knowledge to benefit the people of North Dakota.

The DREC operates 4,916 acres of owned land within the region, as well 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 was taken place for 100 years.

Agency Mission Statement

The Dickinson Research Center must be 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 dryland agriculture of western North Dakota. The center shall conduct research at the ranch In Dunn County with beef cattle and swine 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 dryland 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 June 14, 2006. 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

We continue to link agriculture with rural and urban communities.

Within this link, we seek to provide education and research. The trip to the future will take all in the NDSU research family to unexplored territory, filled with as many unknowns as the pioneers experienced. Four challenging areas are on the center's plate: exploring the diversity within food production systems, looking for an acceptable level of ecological balance, expanding and seeking sustainability solutions and integrating the future of agricultural systems within American culture.

Annual sales income from agricultural producers, which are bottom line new wealth figures, approached $4 billion in 2004. The natural resources of our air, soil and water are available to create new wealth through establishing relationships with companion industries. The use of North Dakota's land, water and air are evident in the growth of the heritage and tourism industries in our state.

Value-added food and energy enterprises have the ability to strengthen our rural communities by converting commodities and byproducts into high-value, saleable goods. The air, soil and water are present and the need to use these resources in a productive way to improve our rural society is great. The need for leadership to assist the people is as strong as it ever has been. This leadership needs to be cognizant of the current inventory of assets and how those assets can be used to complement community development opportunities. Progressive communities have leaders who have an inclusive vision. This vision is built on open, honest communication and engages people in self-determination.

As we look ahead to the next century, we need to challenge ourselves to recognize that survival means being in tune with the land and ecology. We need to work with natural cycles of water, carbon and nitrogen to achieve the best possible outcomes. It is with this in mind that our programs reflect a sensible, sustainable, stewardship approach to reaching solutions. The major challenge for conventional agriculture is to realize that the accountability of food production sources is a major factor in the immediate future.

In terms of more program specifics, the DREC is moving toward extended forage-based beef management systems and sustainable agricultural practices. Sustainability applies to personal and business decisions that create positive outcomes for the people and natural systems of the region. The center needs to obtain the resources to evaluate production efficiencies, requirements (land, labor and equipment) and economics of grazing native range, grazing nonnative perennial and annual crops, and feeding harvested feeds in confinement; evaluate post-weaning beef performance to further assess management effects; monitor animal waste distribution, water and nutrient runoff, and overall impact to water quality of these three systems; evaluate no-till crop sequencing to increase forage yield; utilize identification processes and records for evaluation of value-added marketing of beef from these three systems; and extend these efforts by utilizing focus group meetings to obtain producer insights and to extend the results to consumers.

These enhanced efforts need the development of small-scale processing capacity across the state to encourage more diversified production of higher value farm products and to assure a discussion of quality of life, ecological realities, and healthy land and people when contemplating economic and rural development. A new resource use and marketing mentality that provides connection from the biology of the land to the dinner table needs to be launched. A concept of integrated agricultural systems (sustainable at the local level, beneficial to our urban partners and capable of feeding the world's people) is needed. The center interacts with many communities and sees a resurgence of medium-sized farms to rebuild the population and economy of rural North Dakota. These are diversified farms, and the center needs to obtain the resources to develop a sustainable agriculture program complete with courses on sustainable farming, reduced tillage farming, rotational grazing, business management, natural ecosystems and alternative energy to fulfill this vision.

Further development of this program for youth would be ideal. We also need programming for Extension educators to get everyone up to speed on a wider range of skills and ideas, including research and education on perennial species for energy and other products, on alternative energy, on reduced tillage organic and reduced pesticide no-till, on rotational grazing systems and on agriculture and wildlife interactions. The future appears to be full of bright possibilities, but we all will need to work hard to identify and develop the best ones.

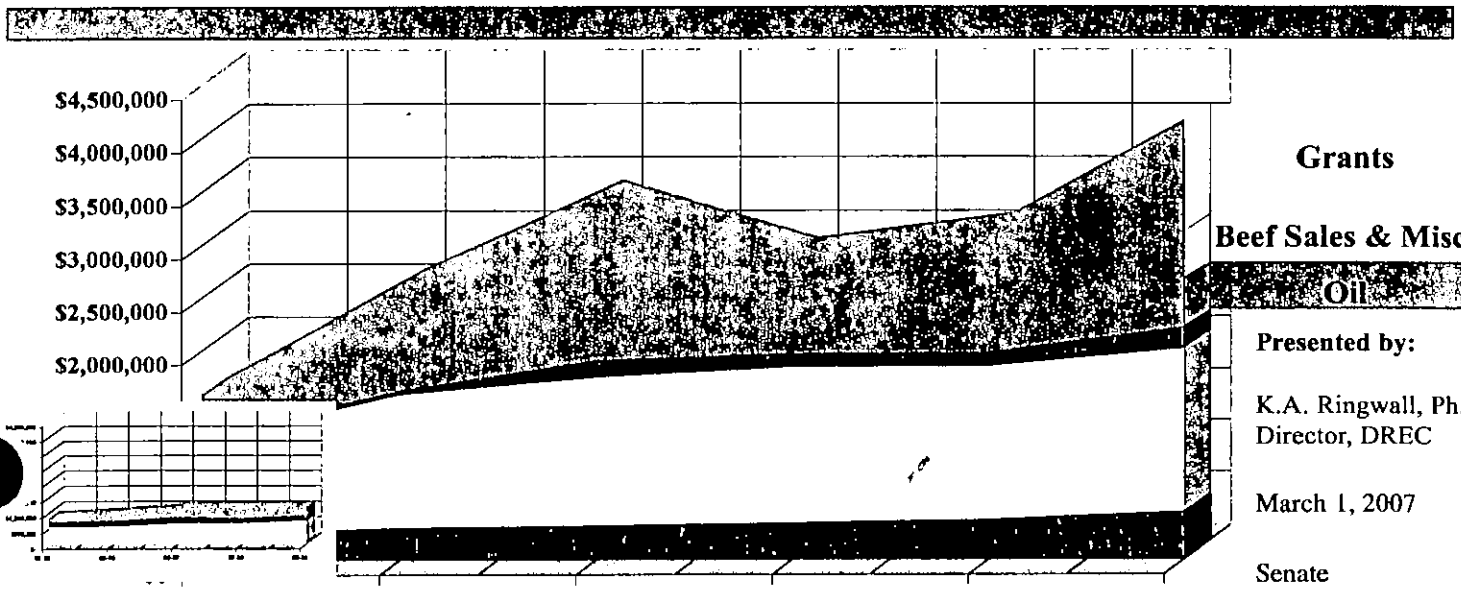
Dickinson Research Extension Center

- Completed construction of the headquarters building, with formal dedication in July 2006
- Conducted research on wheat cultivar performance and regenerating forage legumes from the Soil Seed Bank in western North Dakota
- Screened fungicidal seed treatments for disease control, biological seed treatments for improved drought resistance and foliar-applied fungicides for tan spot control
- Brought small-grain variety development and selection onto organic farms
- Constructed and demonstrated the DREC cross-slot drill
- Researched the effect of field pea-flaxseed blends on receiving calf weaning performance, immune response, feedlot performance, carcass quality and economics; hay feeding methods on cow performance, hay waste and wintering cost; weaning date and retained ownership on cattle performance and forage disappearance in spring-calving beef systems; time on dry-matter yield and forage quality of swathed oat and unharvested corn forages; and sampling date on the forage quality and quantity of stockpiled native range in southwestern North Dakota
- Educated producers through the beef quality assurance programs and the Beef 101: From Cows to Carcasses program
- Was involved with the CalfAID Source and Age Verification Program, CHAPS recordkeeping benchmark analysis for herd improvement and Dataline analysis for tracking and traceback of North Dakota feeder calves
- Conducted research on expanding annual forage production, integrating forage into cropping and livestock systems and extending the grazing season
- Developed software for feedlot hydrology and nutrient management
- Studied the effects of bedding type on animal performance
- Developed a grazing system based on animal-plant interactions called the "twice over" system, which improves range conditions and the financial outlook for producers
- Conducted grazing management studies
- Conducted research on ley farming, biomass production and the benefits of crop rotation
- Demonstrated geospatial farm management methods in southwestern North Dakota

Producers examine seed placement as part of a no-till demonstration during DREC's summer field day.

NDSU DICKINSON Research Extension Center

1041 State Avenue • Dickinson, ND
701-483-2348 • www.ag.ndsu.nodak.edu/dickinso/



Presented by:

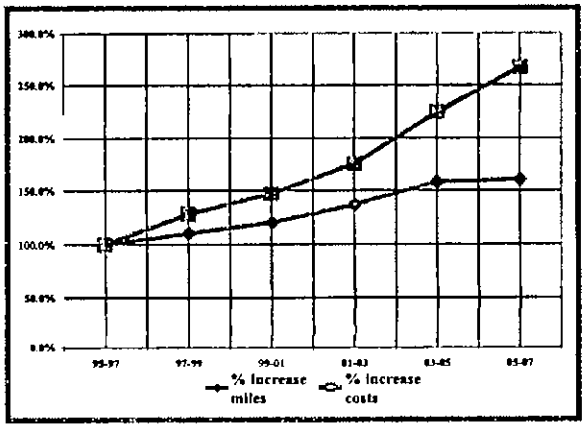
K.A. Ringwall, Ph. D.
Director, DREC

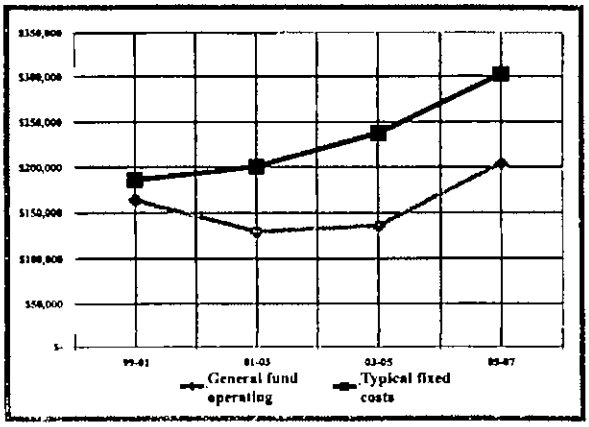
March 1, 2007

Senate
Appropriations
Hearing
Bismarck, ND

Cow Herd (Avg of FY 2000 - FY 2005)

	Avg. No	Total Direct & Overhead Costs
Cow-Calf Pairs	287	$463.50
Replacement Heifers	106	$313.99
Background	39	$51.47
Finish	70	$278.41





NDSU
DICKINSON
Research Extension Center

1041 State Avenue
Dickinson, ND
701-483-2348
www.ag.ndsu.nodak.edu/dickinso/

Our Objectives

For the families of North Dakota we research and report on agricultural methods that

- •• are **SENSIBLE**
- •• appear **SUSTAINABLE**
- •• advance **STEWARDSHIP**

Our Mission

(An abridged version from the NDCC)

Located at or near Dickinson in Stark County, the Center shall conduct research on increasing the carrying capacity of native rangeland . . . (and how) to best compensate for the vagaries of the weather as it influences forage production . . . The Center shall conduct research at the ranch location . . . for the benefit of livestock producers (and) shall conduct research . . . 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 . . . for the benefit of the state.

Our Goal

Engage in science-based research that
- •• achieve **SOLUTIONS**

Opportunities in Agriculture

Agronomy & Cropping Systems

- •• Develop superior plant cultivars and genetics that flourish in dryland agriculture
- •• Utilize annual and perennial plant growth within cropping systems
- •• Expand organic crop production research
- •• Continue no-till and reduced till cropping systems

Biosecurity

- •• Ensure safe, high quality food from crop plants and livestock
- •• Control pathogens through a systems approach based on feeding high fiber based diets and direct-fed microbials
- •• Provide source and age verification program for livestock by assisting with identification, marketing and performance analysis

Beef Systems

- •• Integrate corn production with grazing systems to develop calves for direct marketing or retained ownership
- •• Promote beef quality assurance education
- •• Utilize annual crops (corn and other cereal grains) to extend grazing season
- •• Evaluate best use of energy plant co-products into livestock diets

Environmental Quality

- •• Reduce proliferation of pathogenic organisms by using biofilters and composting
- •• Verify best management practices through ambient water quality monitoring
- •• Prevent environmental damage through aggressive waste management education and assistance program
- •• Capture nutrient values from plant and livestock waste

Horticulture

- •• Expand Xeriscape landscaping and promote water conservation
- •• Continue urban agriculture educational efforts through outdoor arboretum, plant species variety trials and grounds access
- •• Assist new enterprises (vineyards, orchards, therapeutic care, etc) develop production models and determine sustainability criteria

Rangeland Systems

- •• Encourage implementation of twice-over grazing system through continued research and education
- •• Extend efforts to overcome noxious weeds within grasslands biome
- •• Promote prairie grasslands community health with micro-organisms and livestock

Sustainable Agriculture

- •• Include geospatial usage (GPS and GIS) as a farm management tool
- •• Determine sustainability value and usage of co-products from energy plants
- •• Integrate grasslands management and cropping systems within the weather extremes of North Dakota
- •• Provide economic and financial management opportunities for farm and ranch producer families
- •• Investigate switchgrass and other crops as potential alternative energy sources

DREC Ranch Headquarters Southwest of Manning

AGRONOMY

The DREC continues research in tillage, variety evaluations, rotations and now organic production as well.

PROJECTS: Wheat Cultivar Performance on Certified Organic [illegible]s in Minnesota and North Dakota; Screen Fungicidal Seed [illegible]nents for Disease Control; Screen Biological Seed Treatments [illegible]mproved Drought Resistance; Forage Legume Regeneration from the Soil Seed Bank in Western North Dakota; Bringing Small-Grain Variety Development and Selection onto Organic Farms; Screen Foliar Applied Fungicides for the Control of Tan Spot; Construct and Demonstrate the DREC Cross-Slot Drill; Improving forage production quality and quantity in dryland conditions; Evaluate Salt Tolerant Alfalfa Varieties

BEEF SYSTEMS

The DREC is continuing research concerning the efficient integration of crop and livestock enterprises needed for producer success in western North Dakota.

PROJECTS: Effect of field pea-flaxseed blends on receiving calf weaning performance, immune response, feedlot performance, carcass quality, and economics - Progress Report; Effect of Hay Feeding Methods on Cow Performance, Hay Waste, and Wintering Cost; Beef Quality Assurance Producer Education; Does Prebreeding Fat or Protein Supplementation Improve Rebreeding Performance?; Effects of Weaning Date and Retained Ownership on Cattle Performance and Forage Disappearance in Spring Calving Beef Systems; Four-State Ruminant Consortium - Integrating Crop and Livestock Production with Annual Forages; Effect of time on dry matter yield and forage [illegible]y of swathed oat and unharvested corn forages; Effects of [illegible]ling Date on the Forage Quality and Quantity of Stockpiled Native Range in Southwestern North Dakota; Efficacy and economic importance of alternative rearing systems for prevention of *E. Coli 0157:H7* in weaned beef calves; Youth Beef Quality Assurance Training; Beef 101: From Cows to Carcasses

BIOSECURITY

The DREC is developing animal identification systems that provide the source and age verification demanded by consumers and needed to reduce the spread of pathogens.

PROJECTS: CalfAID™ Source and Age Verification Program; CalfAID™ acceptance by the USDA as a Process Verified Program; CHAPS™ record keeping benchmark analysis for herd improvement; Dataline™ analysis for tracking and traceback of North Dakota feeder calves; First Response Team; Iowa State University Veterinary School collaboration

CROPPING SYSTEMS

The DREC is working to develop crop rotations that utilize moisture and combine the positive aspect of diversity from agronomy, range and livestock practices.

PROJECTS: Integrating Forage into a Traditional Cropping System; Interim Report (March 16, 2005) Integrating Crop and Livestock Production with Annual Forages; Expanding annual forage [illegible]oduction and use in the Northern Great Plains; Integrating Crop & [illegible]tock Systems with Forages; Crop and Livestock System [illegible]ration with Annual Forages; Crop Rotation Benefits of Annual Forages; Extending the Grazing Season; Corn Harvested by Beef Animals; High Quality Annual Forage Production from Small Grains; Demonstrate a No-Till Forage System with both Perennial and Annual Forages; Model 100 Years of No-Till Forage Production with 100 Years of DREC Weather Data

Annual DREC Field Day Demonstration

ENVIRONMENTAL QUALITY

The DREC is working with producers to minimize potential pollution and capture the nutrient value of livestock waste.

PROJECTS: Spreading Systems and Containment Ponds for Livestock Waste Management; APEX Feedlot Water Quality Simulation; Verification of Nutrient Transport Modeling of a Bison Feedlot; Development of a Software for Feedlot Hydrology/Nutrient Management; Effects of Bedding Type on Animal Performance, Manure Nitrogen Retention and Composting Efficiency (Preliminary Report); Livestock Waste Education, Information, and Assistance Program - Semiannual Report; Water Quality Monitoring

HORTICULTURE

The DREC evaluates many species of plants and many products that local residents use in lawns, gardens, and shelterbelts.

PROJECTS: Bedding Plant Trial Research; Tree & Shrub Survival; Xeriscape Landscaping; Forestry Arboretum; Perennial Grasses; Turf Grass; Cultivar Trials; Fruit Orchard

RANGELAND SYSTEMS

The DREC has developed an optimal system of grazing based on animal-plant interactions. The "twice over" system improves range conditions and improves the financial outlook for producers.

PROJECTS: Western Snowberry Biology; Environmental Factors that Affect Range Plant Growth, 1892-2005; Forage Plant Nutrients Produced on the Land Are the Primary Unit of Production in the Beef Industry; Grazing Treatment Effects on Vegetative Tillering and Soil Rhizospheres of Western Wheatgrass; Weight of Water per Acre from One Inch of Rain; Concept Changes Regarding the Use of Interseeding Practices to Correct Problems in Grassland Ecosystems; Manage Forage for Nutrients Not Dry Matter Production; Spring-Seeded Winter Cereals Can Extend the Northern Plains Grazing Season; Grazing Management Can Reduce Grasshoppers While Increasing Beef Production Profits; Proper Grazing Management Can Minimize Drought Severity Problems; Reestablishing Native Grass and Forb Species at the Schnell Ranch Recreation Area

SUSTAINABLE AGRICULTURE

The DREC is studying ways to simultaneously meet economic, social and environmental needs through agriculture.

PROJECTS: Ley Farming; A Systems Approach to Integrating Crop and Livestock Enterprises; Integrating Crops and Livestock by Ley Farming in the northern Great Plains; Adding Value to Field Peas; Understanding the Rotation Benefit; Crop Rotation Benefits of Annual Forages; Biomass Yield, Phenology, and Survival of Diverse Switchgrass Cultivars and Experimental Strains in Western North Dakota; Demonstrate Geospatial Farm Management Methods in Southwest North Dakota

Scientific review and findings on these projects available on the DREC website: www.ag.ndsu.nodak.edu/dickinso/

AGENCY OVERVIEW

Central Grasslands Research Extension Center - Streeter

North Dakota Agricultural Experiment Station

Agency Statutory Authority

Century Code 4-05.1

Agency Description

The CGREC conducts research for the Coteau region of North Dakota, an area that is 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. The CGREC's primary focus is management of grassland acreage that 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 between two counties that rank in the top 10 counties for the production of livestock and forages. This area served by the CGREC contains 5 million acres (44 percent) of the state's rangeland, where 42 percent of the state's livestock is raised on 38 percent 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 byproducts 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 June 14, 2006. 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 more than 5,000 acres of native rangeland, tame pastures and crop acreages. The center has a commercial herd of 380 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 professional and technical staff is becoming a critical hindrance to the growth and development of this center's potential.

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 that 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 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.

Area producers have many questions about new forages and how they may be developed and sustained to insure maximum livestock performance. An agronomist will be needed to assist the director with the demands of the new statewide ethanol study, which was implemented in spring 2006.

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 it to increase sustainable and organic crop production in the area.

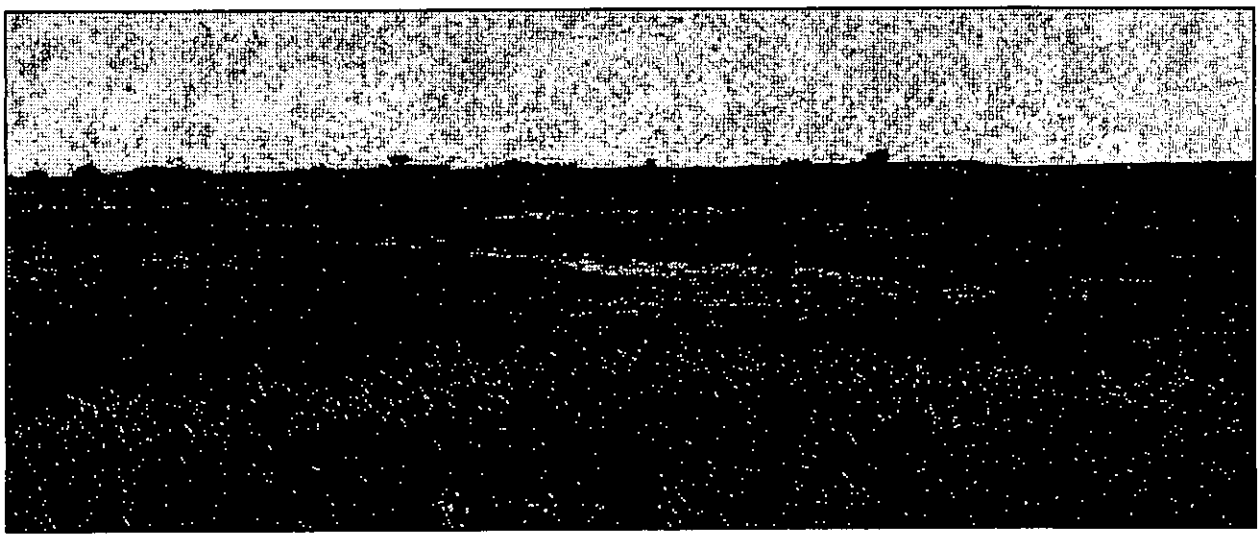
An agronomist and another livestock scientist at Central Grasslands would develop the potential for rural economic development in the area of organic crop and livestock production.

Enhance and expand activities in rangeland ecology, natural resource management and agritourism as related to wildlife management that is compatible and complementary to livestock production activities.

The most critical limitation to the accomplishment of the above goals is the work force 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

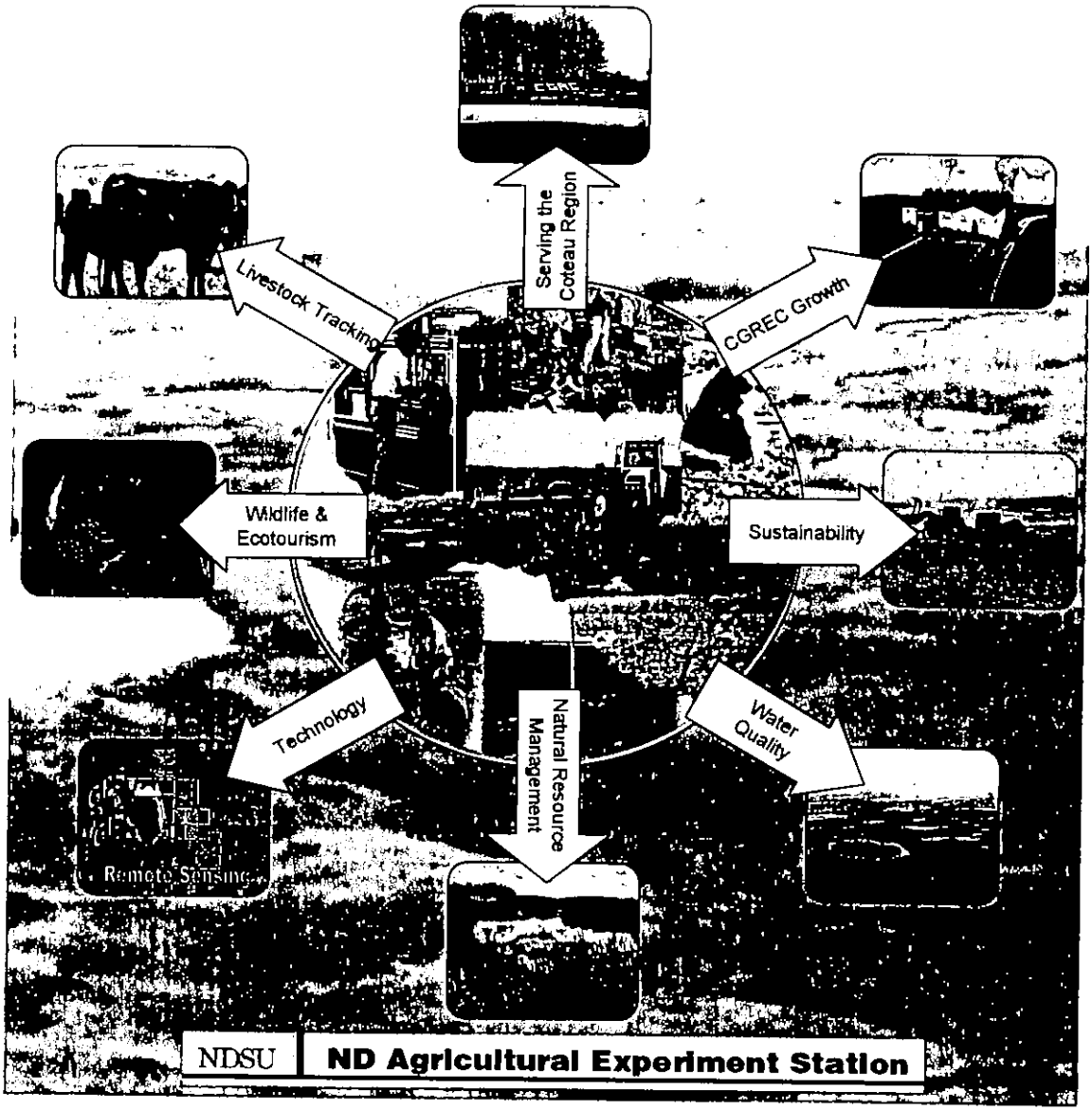
- Conducted research showing that seeding marginal, highly erodible land to grass and grazing it with beef cattle can return an average profit of $42.51 per acre versus $4.28 per acre for the same type of land producing a small-grain crop
- Conducted research showing producers need 1.5 to two acres of North Dakota rangeland in good to excellent condition to adequately maintain a cow and her calf for one month
- Demonstrated with data from an 18-year grazing intensity study that absence of grazing and overgrazing significantly decrease the productivity and species diversity of native range
- Hosted students and faculty from the Chinese Academy of Science, Institute of Botany, in Beijing, China, who come to the CGREC to study grasslands and production practices and compare research data from the CGREC, Inner Mongolia and Tibet to better understand how grazing affects range plant communities in other parts of the world
- Works closely with the Foundation for Agricultural and Rural Resources Management and Sustainability to increase sustainable and organic crop production
- Conducted studies of grazing intensity impact on rangeland hydrology that show water infiltration on rangeland in poor condition is 0.5 inch per hour, while it is more than 2 inches per hour on good to excellent rangeland
- Demonstrated that improving water infiltration on rangeland in poor condition can increase beef production by nearly 10 pounds per acre and increase income by more than $9 per acre
- Developed an ecophysiology program to study the details of the complex plant communities of the mixed-grass prairie, including carbon sequestering (carbon storage in the soil)
- Developed a model farm in response to producers' requests for a whole-enterprise management system to integrate results from long-term studies of livestock, forage, soils, grazing and resource management into a unified plan
- Began construction on an addition to the center's office building with anticipated completion spring 2007



CGREC researchers study the effects of grazing on native range productivity and species diversity.

Central Grasslands Research Extension Center

A Summary of Research and Outreach Celebrating 25 Years



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History and Mission of the Central Grasslands Research Extension Center

The North Dakota Agricultural Experiment Station is a network of research centers located throughout the state and headquartered at North Dakota State University, Fargo. In response to producer requests, each center was created by an act of the North Dakota Legislature for the purpose of conducting research specific to the soil types, precipitation patterns, and growing season length of a physiographic region of the state.

The Setting

The Central Grasslands Research Extension Center (CGREC), located 6 ½ miles northwest of Streeter ND, serves 18 counties in an area bounded by the Missouri River on the west and the James River to the east. Part of this region is on the Missouri Coteau, a land of rolling hills interspersed with shallow wetlands. This unique topography is found in a diagonal band from Saskatchewan to northeast South Dakota, and is composed of thick glacial sediments deposited at the southern edges of the glaciers at the end of the Ice Age. Due to its topography, this is an area of little stream development but numerous sloughs. The other portion of the region served by CGREC is the Coteau Slope, which is similar to the Coteau, but contains streams that drain into the Missouri River.

The Center's Mission

The Coteau wetlands, along with the mixed-grass prairie of the uplands, make this region ideal for livestock and waterfowl production. This area supports about 44 percent of the state's rangeland and raises 42 percent of the state's cattle (716,000 head in 2005), on 38% of the state's farms. Rocky soils, unique topography, and the vegetation of the Coteau and Coteau Slope dictate management practices that differ from those in the drier western part of the state and the higher-rainfall pastures to the east. To serve the research needs of the producers of this region, CGREC was established by legislative act in 1977 and reaffirmed by the 1989 legislative assembly.

The Center's legislated mission requires that research in range and livestock management be conducted with the following objectives:

1. To increase the range-carrying capacity of native range with emphasis on conservation.
2. To stabilize grass production and to determine ways to compensate for weather as it influences forage production.
3. To identify the impact of management systems on beef production in the central region of the state.
4. To explore the use of crop residues and by-products for the maintenance of the cow herd.
5. To demonstrate management techniques and advise operators regarding research results and information.

In order to accomplish these goals, CGREC began operation in 1981.

Facilities and Staff

One of seven centers in the state, CGREC is the largest with 5,335 acres (3,300 in native mixed-grass prairie and the remainder in hay and cropland) that support a commercial cow herd of 400-450 head. The development of the Center's facilities over the past 25 years is summarized in "Major Milestones" starting on page 4. The challenges of supporting a large research center in a rural area have been met by the staff of CGREC in much the same way that local producers and businesses do: by being resourceful and utilizing local goods and services.

The Center currently has a staff of 10 permanent employees, two of which have part-time appointments (see Back Cover). During the summer field season, eight or more seasonal employees are hired, often students, both the local area and from colleges in other states. In cooperation with the NDSU Graduate School and those from other universities, the Center also hosts graduate students while they conduct their research projects during the field season. Thirty graduate students have conducted research at CGREC in a variety of fields (page 21).

In 2003, the Center signed a Memorandum of Agreement with the Chinese Academy of Sciences, Institute of Botany in Beijing, China, for a scholar exchange program. The Center is currently hosting three graduate students from the Institute of Botany and a professor from the Northwest Institute of Plateau Biology in Xining, Tibet, as they conduct research on rangeland ecophysiology, ecology, and soils.

Advisory Board and Funding

The CGREC Advisory Board is made up of 12 producers and community leaders from the region served by the Center (page 25). Board members provide input regarding research projects, advise and consult with the CGREC staff, act as liaisons to the public, and support and promote the Center at the North Dakota State Legislature.

Funding for the Center is provided in part by the State and is approved by the Legislature on a biennial basis. About half of the total budget, however, comes from federal and private grants and the sale of agricultural commodities. In 1999, the State Board of Agricultural Research and Education (SBARE) developed a "Rangeland Initiative" to provide increased funding for agricultural research and range ecology. Funding was given to the Center to support graduate students and for operating expenses. Grants from the USDA and the North Dakota Natural Resources Trust were awarded to the Center in 2004 to promote sustainable agriculture. This funding is being used to demonstrate "best management practices" using a Model Farm at the Center and to hire an extension specialist to work directly with producers on management plans and rangeland monitoring. Recently, the North Dakota Natural Resources Trust awarded CGREC a grant to study the feasibility of growing perennial grasses for ethanol production.

Outreach

Each year the Center publishes an Annual Report. Nearly 50,000 copies are distributed in North Dakota, as well as to researchers and universities throughout North America and to several foreign countries. Many of the articles found in the Annual Report are also posted on the Center's website: www.ag.ndsu.nodak.edu/streeter.

The Center hosts an Annual Field Tour in June which is open to the public. Current research projects and demonstrations are featured on an outdoor field program. In January, a "Research Round-Up" is presented in one of the towns in the area served by the Center. This program features CGREC research as well as invited speakers. CGREC staff members also present findings on their research at scientific and extension-sponsored meetings throughout the year. Video conferencing is currently available at the Center.

Research

Cattle health, forage production and grazing systems, and soil, water, and wildlife management are important aspects of any livestock operation. To research and demonstrate these practices, over 100 projects have been conducted at CGREC in the past 25 years. A summary of each project may be found starting on page 6, along with a map on page 12 showing the location of each study.

In 1981, 150 bred heifers were purchased to start a research herd at CGREC. A high quality commercial livestock herd has been maintained through the years for numerous studies on cattle nutrition and health, herd management, marketing, and pasture management (pages 6-10). Five different grazing systems have been studied and compared on native and tame grass pastures at the Center. A long-term grazing intensity trial began in 1988 which has also been used as the location for various other studies. In addition, research pastures in the Conservation Reserve Program (CRP) are studied for the long term effects of grazing and haying highly erodible land (pages 10-16).

An ecosystem modeling study began in 2000 to evaluate plant community dynamics and physiological processes (page 16). Other on-going projects include: rangeland monitoring (page 11), forage production and quality (page 14), and wildlife (page 18) and soils studies (page 18). Weather data has been collected daily since 1981 and the Center is also the location of one of the NDAWN weather stations (page 20). The future goals of the Center including research projects are described on pages 23-24.

Summary

Rangeland resources continue to be important to the state as well as the local economy. Over 25 percent of North Dakota's population is employed by agriculture or agriculture-related businesses. Cash receipts for agriculture in the Coteau area average $1.2 billion annually. Producers in the area served by CGREC benefit directly from the information provided by the Center on livestock and forage production. The numerous communities in this area continue to thrive as the Ag Industry prospers.

Recently, the mission of the Research Centers has expanded from production agriculture research to include rural economic development. The CGREC staff and Advisory Board are investigating the potential of the Coteau and Coteau Slope area with regards to further natural resource studies and rural and nature-based tourism (see page 23). The mission of CGREC to benefit the citizens of North Dakota will continue to be fulfilled.

Artwork by Patsy Renz

Major Milestones : 1977-2006

1977 - April 21st - The 45th Legislature Bill 1528 entitled "Central North Dakota Beef Cattle Experiment Station" was introduced, passed, and ultimately signed into law. Twenty-seven parcels of land were offered as potential sites.

1979 - May 9th - The quality of land to be purchased ranged from undesirable to highly desirable. The suitability of buildings and the sellers' prices represented a broad spectrum. The site selection committee reviewed botany, soils, and appraisers' reports.

- ☆ A verbal agreement in principle for the sale of land was negotiated with the two owners and their representatives. Land purchased for the Research Center totaled 1360 acres from Bert Sackman and 3975 acres from Harry Iszler.
- ☆ The 46th Legislative session appropriated the funds to complete the purchase of the 5335 acres of land but did not appropriate money for operating.

1981 - The 47th Legislative session appropriated an operating budget for the station. This included the hiring of four full-time personnel; a director, an animal husbandman, a technician, and administrative assistant.

- ☆ July 15th - Paul E. Nyren became the director of Central Grasslands. Anne Nyren was hired as administrative assistant, Tom Stromberg as livestock specialist and Al Sheet as technician. The offices were in the lower level of Anne and Paul Nyren's residence, located on the former Harry Iszler farm.
- ☆ August 7th - Grand opening was held at the director's residence. Senator Mark Andrews unveiled the Commemorative Plaque for Central Grasslands as the First Great Plains Conservation Contract Site.
- ☆ The National Weather Station site was set up.
- ☆ A research herd of 150 heifers was purchased.

1982 - June 30th - 1st Annual Field Tour was held at the director's residence with the lunch being served at the Salt Lake. **The Annual Tour is held every June.**

- ☆ The water lines for the short-duration study were dug in.
- ☆ Grazing research, wildlife research and cattle feeding trials were developed.

1983 - June - Landscaping at the director's residence was completed.

- ☆ A new well was drilled at the livestock unit and the unit was remodeled.
- ☆ September - The pole barns were moved from the director's residence to the livestock unit located at the former Bert Sackman farm. Also during September the waterers and water lines were dug into the livestock barns.
- ☆ November - The livestock unit was fenced with board fence.

1984 - May - The shelter belt at the livestock unit was planted, crabapple trees and evergreen trees were added to the headquarters entrance.

- ☆ December - The cement for the feed bunks was poured at the livestock unit.

1985 - The chute and sorting pens at the livestock unit were completed.

- ☆ June - A tractor roll-over safety program was presented during the summer Field Day Tour.
- ☆ NDAWN - Weather Station was built.
- ☆ Brian Kreft, livestock specialist and manager of the livestock unit, was hired.
- ☆ Jackie Kreft, a vet technician and gardener, was hired.

1986 - The hay storage barn at the livestock unit was built in the fall.

1987 - The office complex was moved to the present location.

- ☆ During the summer, the entryway was added to the office complex.
- ☆ The Annual Field Day program was moved to the new office unit area. The water level in the Salt Lake

covered the entire park forcing the tour lunch to be held elsewhere.
- ☆ Five grazing systems were in use at Central Grasslands: season-long grazing, four-pasture complementary, short-duration, twice-over rotation and two-pasture switch back.
- ☆ Bob Patton, assistant range scientist, was hired.

1989 - CGREC promoted and assisted in the establishment of native range as the State Centennial Crop.
- ☆ Sandi Dewald and Carol Erbele, support staff, were hired.

1990 - The Calcfreg Computer Program was written by Anne Nyren and Bob Patton and was copyrighted. It is a program for the management of plant community data.

1991 - The rain simulators were built in the winter.

1993 - The new shop at the livestock unit was started in the fall.

1995 - September - Brian Kreft and Spencer Siedler made and demonstrated their design for the fence cross-overs for 4-wheelers.
- ☆ The Ducks Unlimited Foundation finished a $100,000 dam repair project at Lake George, Salt Lake.

1996 - June - The Prairie Garden at CGREC was dedicated to Tom Conlon.
- ☆ Anne Nyren was promoted to administrative/operations officer.

1997 - Legislature established the State Board of Agricultural Research and Education (SBARE) to oversee the Agricultural Experiment Station and Extension Service.
- ☆ Dwight Schmidt, shop foreman, was hired.

1999 - A new cattle barn with working facilities was built at the livestock unit.
- ☆ The moveable rain-out shelters were built.
- ☆ Four FEMA campers were purchased to house the summer employees and were placed near the office.

2000 - Dr. Xuejun Dong, a plant physiologist from China, joined the staff.

2002 - New metal steps replaced the wooden ones to the entrance of the main office.

2003 - Dr. Shiping Wang, from China, visits CGREC as a visiting scholar.

2004 - The windows in the lower level of the office unit were replaced and the foundation and siding upgraded.
- ☆ A Chinese student spent six months as an exchange scholar at the Center.
- ☆ Rodney Schmidt, assistant herdsman, was hired.

2005 - Three Chinese students studied and conducted research at the Center.
- ☆ Windows, siding and general repairs were made to the quonset at the directors residence.
- ☆ Two greenhouses were purchased and built for the studies of Dr. Xuejun Dong and Guojie Wang.
- ☆ CGREC received a $93,000 Sustainable Agriculture Research and Education Grant (SARE).
- ☆ Amanda Hancock, a range and natural resource specialist, was hired.

2006 - CGREC is 25 years old.
- ☆ Plans are underway for the office addition. Ground breaking will be held June 28, 2006.

Summary of Research Projects at CGREC: 1981-2006

Over 100 scientific and economic studies have been conducted at CGREC in cooperation with researchers from federal and state agencies and several universities.

Articles on the projects listed below may be found in the Center's Annual Reports, some of which are posted on the website: www.ag.ndsu.nodak.edu/streeter . Please contact the Center at 701-424-3606 or grasland@ndsuext.nodak.edu for further information.

The number in front of each project summary below may be used to find the location of the study on the map (see page 12).

Cattle Herd Management and Marketing

1. Livestock report in the Annual Report, 1983-1988, 1999
   Summary on the development and expansion of the CGREC livestock herd and facilities.
   Paul E. Nyren (1983-1985), Brian S. Kreft (1986-1988, 1999), Alcuin J. Scheet

2. Effect of time of transport on body shrink and selling price of calves, 1987-1988
   Calves delivered to the sales barn the day before the sale averaged two pounds more than those arriving the day of the sale.
   Brian S. Kreft

3. Steer Classic: Evaluation of retained ownership, 1989-1994
   Over 1000 steers were backgrounded at CGREC and finished in Kansas. Gain and carcass results showed an average value added return of $13.82 per head for retained ownership.
   Brian S. Kreft, Ray Erbele

4. Effect of creep feeding on ranch profits, 1991-1992
   Pelletized creep was compared with whole oats and no creep feed with regards to calf and cow performance. Creep feeding increased gains, but the economic advantage was small.
   Brian S. Kreft

5. Conception rates and grazing systems, 1985-1989
   A higher percentage of open cows and heifers occurred on the short-duration, twice-over, and switchback pastures as compared to the season-long pasture.
   Brian S. Kreft

6. Effect of management systems, frame size, and dam condition score on performance, 1989
   No definite trends were seen in steer carcass data due to backgrounding, wintering, steer frame size, or dam condition.
   Russ Danielson, Brian S. Kreft

7. Influence of energy source on beef productivity and carcass characteristics, 1992
   The feeding of 80% concentrate diets (corn based or barley based) for 42 or 87 days improved cull cow carcass characteristics and increased economic return.
   L.A.. Burgwald, Joel S. Caton, P.T. Berg, Brian S. Kreft

8. Fall calving study: Performance and economics, 1992-1998
A fall calving herd was started to compare the advantages of fall calving over spring calving.
Brian S. Kreft, Jackie Kreft, Ritchie Cargo, Dwight Schmidt

9. Designing research to help producers: A survey, 1998
A questionnaire was distributed to assess the opinions of producers in the Coteau area regarding research programs at CGREC. The economics of livestock operations was the biggest concern among the 93 people responding.
Paul E. Nyren, Jeff Printz, Anne C. Nyren, Bob D. Patton, Brian S. Kreft

10. Low input cattle finishing, 2001-2002
Steers fed a totally mixed ration of corn, corn silage, and hay showed little gain advantage over those fed a self-fed grain mix of corn and wheat midds plus self-fed hay, but feed costs were lower.
Brian S. Kreft, Ritchie Cargo, Jackie Kreft, Dwight Schmidt

11. Livestock management in a whole-enterprise management system, 2005 to present
A model farm was started following the recommendations of local ranchers and the CGREC staff in order to demonstrate the best management practices for the area. Included are: spring calving, grazing tame and native pastures in 3-pasture rotation, and the use of crop aftermath.
Brian S. Kreft

Cattle Nutrition

12. Protein supplementation of growing-finishing beef cattle, 1987
Barley dried distiller's grain and soybean meal used as protein supplements for beef cattle were compared in backgrounding and finishing trials. Optimum amount of protein was studied.
W.P. Weiss, S.L. Boyles, Vernon A. Anderson, Brian S. Kreft

13. Feeding calves whole and ground barley, 1988
Calves fed processed barley were heavier (32 lbs.) and had a more rapid rate of gain (0.33 lbs/day) [than those fed whole barley]. Cost of gain was also cheaper for calves fed processed barley."
Brian S. Kreft, S.L. Boyles

14. Flax screening in rations for backgrounding calves, 1988
Steer calves fed a diet with a barley-oat ration gained slightly more than those with a barley-flax ration, but the barley-oat ration was more expensive.
Brian S. Kreft, S.L. Boyles

15. Grazing nutrition and grazing systems (nutrient utilization and digestive processes), 1989-1990
Seasonal changes in dietary chemical and botanical composition, forage intake, digestibility, and ruminal fermentation were studied on heifers grazing twice-over and season-long pastures.
Joel S. Caton, Don R. Kirby, S.C. Silcox, D.J. Hirschfeld, K.C. Olson

16. Evaluation of distillers by-product blocks, 1990
By-product blocks were added to the basic ration, fed to heifers with and without added hay. The block/hay group had the greatest gain, but more study is needed.
Brian S. Kreft, LaDon Johnson

17. Compensatory nutrition regime for developing beef heifers, 1993-1994
"Weight gains and feed efficiency of heifers developed with a stair step nutrition regime compared favorably with control heifers developed normally."
Brian S. Kreft, Chung Park, Russ Danielson, Wanda Keller

18. Creep feeding fall-born calves, 1996-1998
"Creep feeding with either soybean oil meal or oats increased weaning weights."
Brian S. Kreft, Jackie Kreft, Ritchie Cargo, Dwight Schmidt

19. Protein supplementation of fall-calving beef cows, 1997-1998
"Supplementing protein to fall calving, lactating cows increases calf weight gain...[but] did not influence milk production or composition, ... body condition or cow weight."
Greg Lardy, Korry Hintze, Trent Gilbery, Joel Caton, Brian S. Kreft, Dan Dhuyvetter

20. Self-limiting supplements for yearling steers, 1999
Three self-limiting supplements were tested, and "salt is the most effective limiter for self-fed supplements for yearling steers grazing native range."
Christopher S. Schauer, Greg P. Lardy, Kevin K. Sedivec

21. Naked oat hay and corn silage in backgrounding diets of heifers, 1999
"Including either naked oat hay or corn silage at 37% of the dietary DM resulted in similar weight gain, feed intake, and feed efficiency."
T.W. Loy, Greg P. Lardy, M.L. Bauer, Brian S. Kreft, Paul E. Nyren

22. Self-fed wheat middlings in backgrounding diets for beef heifers, 2000-2001
"Cattle on self-fed wheat middlings had similar average daily gain, feed intake, and feed efficiency compared to those on wheat middlings fed in a totally mixed ration."
T.C. Gilbery, Greg P. Lardy. M.L. Bauer, Brian S. Kreft, J. Dhuyvetter

23. Creep feeding pressed block and salt-limited pellets to beef calves, 2001
"Creep fed calves had a greater gain compared with controls, [with] no difference in gain between calves fed two creep diets, [block or pellets]."
T.C. Gilbery, M.H. Knight, Greg P. Lardy, Brian S. Kreft, Joel S. Caton

24. Flax in creep feed: Performance, health, and carcass characteristics, 2003
The addition of flax to creep feed at two rates was tested for its effect on nursing calf performance and feedlot performance. No performance or intake differences were noted.
T.D. Maddock, T.C. Gilbery, Greg P. Lardy, Brian S. Kreft

25. Use of ethanol by-products in first-calf heifer and steer finishing rations, 2004-2005
"Sweetpro tubs improved weaning weights and early post weaning growth but showed little or no advantage on cow performance or calf backgrounding performance."
Brian S. Kreft, Paul E. Nyren, Anne C. Nyren

Cattle Health

26. Optimum vaccination time for feeder calves, 1983
"The immunological response of feeder calves [was studied] following vaccination [with a triple vaccine of IBR, BVD, and PI3] at pre-weaning, weaning, and post weaning."
I.A. Schipper and Tom Stromberg

27. Effects of three parasite control programs on backgrounding calves, 1984
"Calves wormed with Levisole injection and Ivomec showed no significant performance advantage over control calves ... possibly due to the extremely low burden of worms present."
Tom D. Stromberg

28. Effects of implanting steers with testicular tissue, Comudose, and in combination, 1985-1986
Testicular tissue, with and without estradiol (Compudose), was tested on steer calves to determine its effect on feed efficiency, rate of gain, and carcass characteristics.
Paul E. Nyren, William Slanger, Russell Danielson, Tom D. Stromberg, Brian S. Kreft, Tim Flakoll

29. Probiotic treatment for newborn beef calves, 1988-1989
"Calves showed no improvement in average daily gain or reduced incidence of disease when given a probiotic gel at birth. Weight at turnout and actual weaning weight were...similar."
Brian S. Kreft

30. Effects of spaying and synovex implants on performance of beef heifers, 1988
"Implants improved gain by replacing the naturally produced hormones when heifers were spayed. Implanted, spayed heifers also gained faster compared to intact heifers."
Russ Danielson, Brian S. Kreft, Tim Flakol

31. Effect of worming on cow-calf production, 1990
"Calf weaning weights and cow weights were not significantly affected by fall worming of cows [with Valbazen]. Pregnancy rates for... treated cows were significantly higher than for untreated controls."
Brian Kreft, Arlyn Scherbenske

32. Comparison of immune response in calves, 1991
Steer calves backgrounded at CGREC and steer calves sent to a Kansas feedlot were tested for their exposure to three viruses and their vaccines at four dates (day 0, 10, 51, and 67).
Arlyn Scherbenske

33. Effect of deworming heifers on gain and reproductive performance, 1991
"Oxfendazole significantly reduced the number and type of internal parasites, ...[with] a trend for the dewormed heifers to be heavier than the untreated controls."
S.L. Boyles, L.J. Johnson, Brian S. Kreft, W. Slanger

34. Effects of Moxidectin pour-on against horn flies on pastured cattle, 1993
Moxidectin and a placebo were used as treatments on beef cows on a season-long pasture, with adult horn fly counts at 7-day intervals.
H.J. Meyer, D.R. Carey, Brian S. Kreft

35. Dectomax application for spring-calving cow-calf herds, 2002
The efficacy of doramectin was tested on beef cows and their calves.
Greg P. Lardy, C.S. Stoltenow, J.T. Seeger, K. Odde

36. Effects of implants on performance of yearling heifers, 2004
The interaction of the implantation of Synovex H vs. stocking rate was tested, with no interaction observed. Condition scores were also not affected by implants.
Brian S. Kreft

Grazing Systems

37. Four-pasture complementary grazing system, 1982-1991
Three tame grass pastures were used for grazing: crested wheatgrass in spring, followed by native mixed grass prairie, and Russian wildrye and Altai wildrye in the fall. Quality was good in spring and fall, and nitrogen fertilization improved quantity and quality of the forage.
Paul E. Nyren, Tom Stromberg, Harold Goetz, William T. Barker, Duane Erickson, Bob D. Patton, Brian Kreft

38. Short-duration and season-long grazing systems, 1982-1992
Eight 40-acre pastures were grazed in rotation, each for 5 days. Two season-long pastures were used as a control. Forage production, utilization, and daily gains were similar. A higher calf gain/acre on the short-duration was due to the 40% higher stocking rate.
Don Kirby, Paul E. Nyren, William T. Barker, Duane O. Erickson, Tom D. Stromberg

39. Three-pasture, twice-over deferred rotation grazing trial, 1983-1984
Six 80-acre pastures were grazed by cow-calf pairs in a three-pasture, 28-day rotation with two replications. Two once-cultivated pastures seeded to native grasses were added in 1985. (See next summary on the four-pasture twice-over study).
William T. Barker

40. Four-pasture twice-over and season-long grazing, 1985-1993
(See 39. Three-pasture twice-over).
"The four pasture, twice-over grazing system has maintained the most desirable species composition and structure of the native mixed grass prairie ... Increases in cow and calf production ... comes with the increased stocking rates." A similar stocking rate on a season-long system would result in a deterioration of range condition.
William T. Barker, Paul E. Nyren, Tom Stromberg, Dennis Whitted

41. Switchback grazing system, 1986-1990
A two-pasture grazing system with two replications was compared to the twice-over and season-long systems. Cattle were moved every 21 days. Results in plant response and cattle performance were similar to those of the twice-over system.
William T. Barker, Paul E. Nyren

42. Grazing intensity research: A long-term study on mixed-grass prairie. 1988-present
Four grazing intensities plus a control in a season-long grazing system are compared with respect to forage productivity, plant community dynamics, cattle daily gains, gains/acre, and economic return. A high stocking rate gives the highest return, but a moderate grazing intensity is recommended to maintain the forage base in the future.
Bob D. Patton, Paul E. Nyren, Steve Schroeder, Russell Lorenz, Willliam T. Barker, Mario Biondini, Charles L. Lura, Brian S. Kreft, Duane Erickson, M. Sweeney, Anne C. Nyren, Steve Schroeder, Joel Caton

43. Conservation Reserve Program research. 1992-present
Forage production and plant species composition, livestock performance (average daily gain and gain/acre), and soil erosion (runoff and sediment load) were monitored on grazed and hayed CRP land. Results from a season-long pasture, a three-pasture rotation grazing system, and ungrazed exclosures were compared. Hay production and quality were also studied, along with the economic returns of grazing and haying. Results indicate that CRP land can be successfully grazed and hayed.
Paul E. Nyren, Bob D. Patton. William T. Barker, Brian S. Kreft, Steve Schroeder, Arnold Kruse, Jeff Printz, Charles L. Lura, Kevin Sedivec, Dennis Whitted, Tim Faller, Joseph Gross, Don Stecher, Jim Nelson, Anne C. Nyren, Cole Gustafson

Rangeland Monitoring

44. North Dakota rangeland inventory, 1979-1985
Nine range plant communities on the CGREC were mapped and described in terms of "floristic composition, vegetation structure, and standing crop production."
William T. Barker, Charles L. Lura, Paul E. Nyren

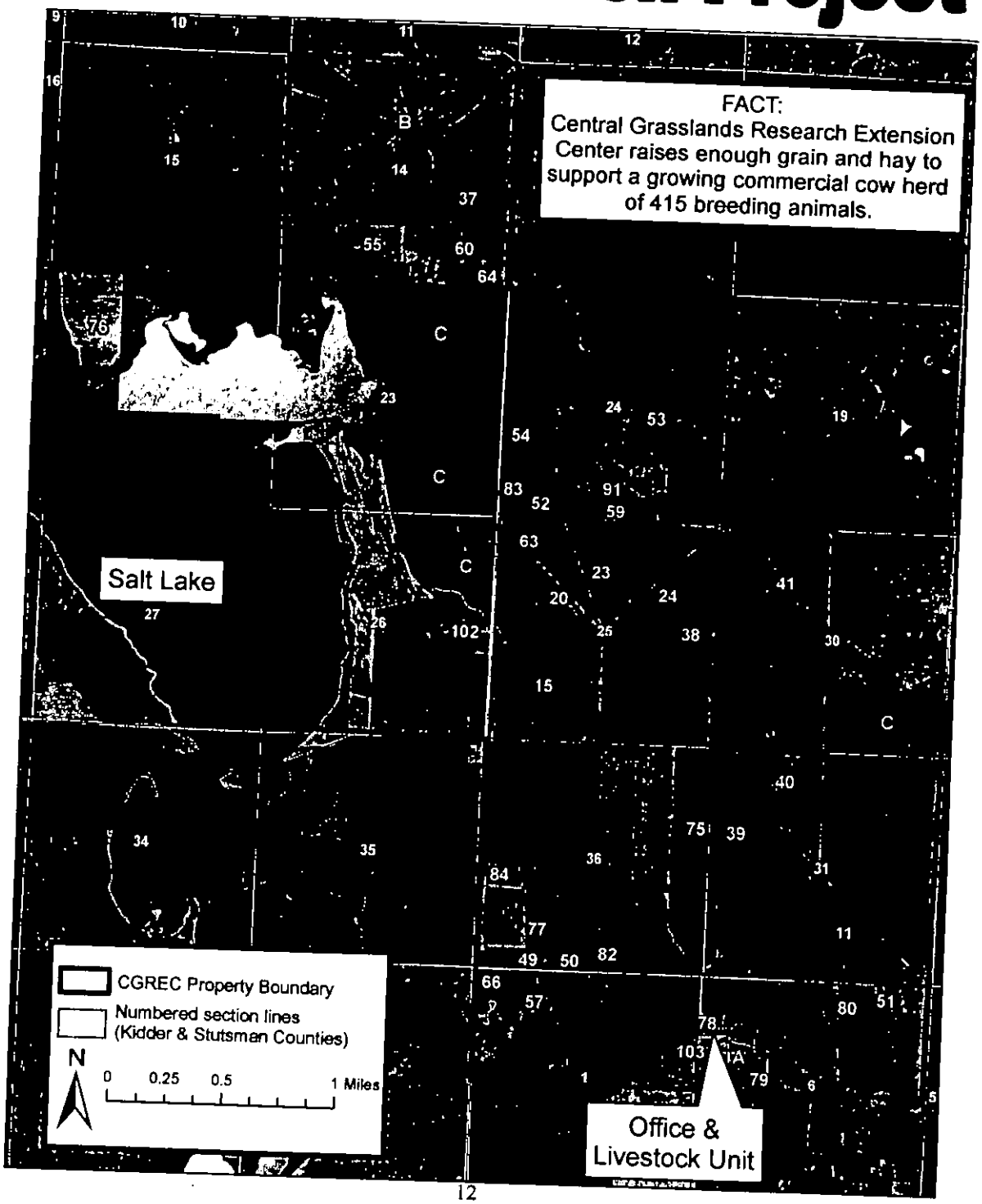
45. Use of remote sensing to determine range forage production, 1989-1990
Using infrared photos taken from light aircraft, range production was determined by comparing relative brightness values with actual biomass samples and extrapolated over the area.
Paul E. Nyren, Bob D. Patton

46. Remote sensing and artificial intelligence to determine forage productivity, 1992-1994
Data from infrared aerial photos and a ground level radiometer was used to predict plant productivity using an artificial intelligence program, "Neuroshell". Predictions varied from the actual values by less than six percent.
Paul E. Nyren, Bob D. Patton, Mario E. Biondini

47. Estimating rangeland production: Swardstick, radiometer, and aerial photos, 1994-1998
Aerial photos, a radiometer, and a sward stick were used to estimate plant productivity. Data was used to train a neural network to improve prediction accuracy.
Paul E. Nyren, Bob D. Patton

48. Rangeland monitoring: Seventeen indicators of rangeland health, 2005
Observations of range plants and soil characteristics can be used to evaluate range condition.
Amanda Hancock

CGREC Research Project



Locations Since 1981

A Green letter refers to sites with multiple projects

A Yellow number refers to sites with individual projects

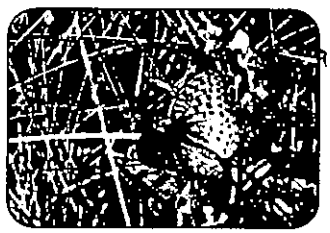
All numbers correspond to Project Numbers in the Summary starting on page 6

A: Feedlot

Project numbers:
3, 6, 7, 8, 10, 12, 13, 14, 16, 17, 19, 21, 22, 29, 30, 31, 32, 33, 56, 61

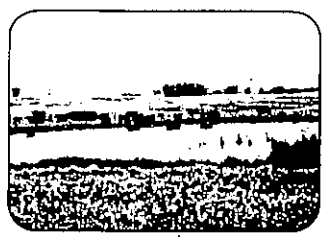
B: Section 14

Project numbers:
45, 46, 47, 58, 62, 68, 69,70, 71, 72, 73, 74, 76, 92,94, 95, 96, 97, 98, 99, 100, 101



C. Various Pastures

Project numbers:
4, 5, 8, 18, 25, 34, 36, 44, 48, 65, 67, 86, 87, 90,



Note: Not all projects listed in the Summary are depicted on the map

Forage Production and Quality

49. Alfalfa variety trial, 1981-1985
Twenty-seven varieties of alfalfa were seeded in 1981. Forage production data from 1982-1985 indicates that 'Rangelander' was the most productive variety overall.
Paul E. Nyren

50. Brome variety trial, 1981-1985
Four-year production averages of 11 brome grass varieties show that 'Baylor' and 'Barton' were the highest producers, although 'Beacon' produced the most in the final year, 1985.
Paul E. Nyren

51. Cool-season species adaptation trial, 1980-1983
Twenty-three cool-season grass varieties were tested for productivity at Fargo and CGREC. 'Prairie Lands' altai wildrye was the highest yielding species at CGREC.
Paul E. Nyren

52. Alfalfa production, 1985-1988
Thirty-six varieties of alfalfa were tested. Variation in yield between the three replications was so high in 1988 that no one variety was significantly more productive than another.
Paul E. Nyren, William T. Barker, Duane Erickson, Bob D. Patton

53. Switchgrass for summer pasture, 1985-1990
Switchgrass (*Panicum virgatum*), a warm-season grass, was seeded in 1985, hayed in 1988, and grazed from mid-July to late-September in 1989 and 1990.
Paul E. Nyren

54. Herbage production of grasses and legumes in five row spacings, 1985-1990
Row spacings ranging from 6 to 48 inches were tested using five cool-season grasses and two varieties of alfalfa. Without weed control, all varieties showed the highest yield with the 6-inch row spacing.
Paul E. Nyren, Bob D. Patton

55. Changes in nutritional quality of crested wheatgrass, Russian and Altai wildryes, 1988-1991
Three cool-season grasses were seeded in 1982-1983 and sampled for crude protein and *in vitro* dry matter digestibility throughout the growing season. Quality remained high in the fall.
Bob D. Patton, Paul E. Nyren, Duane O. Erickson

56. Effect of alfalfa quality on growing heifers, 1989
Three treatments were tested on heifers: alfalfa hay high in crude protein in a balanced diet, lower quality alfalfa hay in a balanced diet, and lower quality hay in an unbalanced diet. The difference in average daily gain was not significant.
Brian S. Kreft, S.L. Boyles, W. Weiss

57. Application of phosphorus and nitrogen to native mixed-grass prairie, 1993-1994
Phosphorus and nitrogen alone and in combination were applied to native rangeland. The phosphorus and nitrogen combination resulted in significantly higher herbage production in 1993 but not 1994. Legumes did not respond to treatment.
Paul E. Nyren, Bob D. Patton, Paul E. Fixen

58. Seasonal changes in forage quality, 1995-2000
Weekly samples of seven species through the growing season and every two weeks through the dormant season were tested for crude protein and *in vitro* dry matter digestibility.
Bob D. Patton, Joel Caton, Paul E. Nyren

59. Hay yields of intermediate wheatgrass cultivars, 1991-1996
Eight varieties of intermediate wheatgrass were seeded in 1989 and harvested over a five-year period starting in 1991. 'Reliant' and 'Oahe' were the most productive varieties.
John Berdahl

60. Big bluestem cultivar trial, 1996
Several varieties of big bluestem (*Andropogon gerardii* Vitman.) were tested for hardiness and yield.
John Berdahl

61. Comparison of hull-less oat hay and corn silage for forage, 1999
The production costs of silage corn and a hull-less oat variety, 'Paul', were compared. The cost of production was lower and the yield per acre higher for oats than for silage corn.
Paul E. Nyren

62. Fertilization of native prairie with slow-release phosphorus and urea, 2000-2004
Slow-release fertilizer was applied at several rates and times to pastures grazed at two stocking levels. The extremely grazed pasture responded the most to the treatments, and an uptake of phosphorus by selected plant species was observed.
Jay M. Volk, William T. Barker, Paul E. Nyren, Dennis Whitted

63. Selenium status of range forages through the season, 2001
The selenium level of forages in three locations (in eastern ND, western SD, and at CGREC) was tested. Forage on the CGREC site had the lowest level of selenium of the three.
T.L. Lawler, J.B. Taylor, Joel S. Caton, J.W. Finley

64. Swath grazing of three forage species and beef cow performance, 2005-present
Fall grazing on swathed fields (crested wheatgrass/legume mix, big bluestem, and foxtail millet) is being compared with grazing native range with respect to nutrient levels and cattle gain.
Bryan W. Neville, Greg P. Lardy, Kevin K. Sedivec, Paul E. Nyren, Brian S. Kreft

Plant Physiology and Ecology

65. Autecology of western snowberry (buckbrush, *Symphoricarpos occidentalis*), 1983
The distribution, productivity, density, age classes, and canopy cover of western snowberry on rangeland was evaluated. The age class structure may indicate increasing distribution.
Don Kirby

66. Effects of spring burning on buckbrush (*Symphoricarpos occidentalis*), 1987-1989
Four buckbrush stands were burned in early spring of 1987 and 1988 and compared with adjacent controls. Burning had little effect on total production one year after burning.
Charles L. Lura, Bob D. Patton, Paul E. Nyren, William T. Barker

67. Impact, succession, and recovery of June bug larva (white grub) infestations, 1985-1988
In 1985, 12% of the rangeland at CGREC was affected by white grubs, which have a three-year cycle. Plant production, plant composition, and grub densities were sampled.
Charles L. Lura and Paul E. Nyren

Ecosystem modeling for range management, 2002-2005 (See also: 97. Quantifying water use, 2001)
Plant and soil parameters are used to characterize the rangeland ecosystem using the Hurley pasture computer model. The effect of variables such as drought and grazing intensity can be studied, and this knowledge applied to land management.
Xuejun Dong, Paul E. Nyren, Bob D. Patton, Brian S. Kreft, Anne C..Nyren

68. Part 1: 2002
Eco-physiological measurements (specific leaf area, leaf gas exchange, and leaf water status) were made on western wheatgrass and Kentucky bluegrass to determine drought resistance.

69. Part 2: 2003
The relationship between leaf photosynthetic rate and light was measured on western wheatgrass and Kentucky bluegrass plants on a CRP site and on the grazing intensity trial.

70. Part 3: 2004
The effect of grazing intensity on grass leaf growth and physiology was studied using a chamber to measure canopy photosynthesis. Soil microbial biomass and respiration was determined, along with soil nitrogen content.

71. Part 4: 2005
Leaf physiology of alfalfa and tall wheatgrass was tested with respect to increased light and CO_2 concentration. The leaf water potential of four grass species was measured in a greenhouse study. Daily ecosystem net CO_2 exchange rates were determined in a simulated drought situation.

72. Vegetation response to grazing intensity: Above- and below-ground biomass, 2004
Above-ground biomass, species composition, and below-ground biomass (at three levels) on three sites with differing grazing intensities were determined and compared.
Guojie Wang, Shiping Wang, Bob D. Patton, Paul E. Nyren, Xuejun Dong, Anne C. Nyren

73. Grazing effects on the seed bank of rangeland, 2004-2005
Soil samples from two range sites on pastures with two grazing intensities were collected in early winter and spring, and germination tests were made in a greenhouse. Species composition and germinable seed numbers were determined.
Guojie Wang, Shiping Wang, Bob D. Patton, Paul E. Nyren, Xuejun Dong, Anne C. Nyren, Holly Johnson

74. Plant responses to grazing intensity: Frequency, leaf area, physiological response, 2005
The effects of grazing intensity on five plant species with respect to frequency, specific leaf area, photosynthetic rate, and leaf nitrogen content were studied.
Danjun Wang, Shiping Wang, Bob D. Patton, Xuejun Dong, Guojie Wang, Xubin Pan, Anne C. Nyren, Paul E. Nyren

Economics, Crops, and Trees

75. Poplar variety demonstration, 1982-1983
Several varieties of poplar (*Populus* sp.) were planted on Section 36 of CGREC to test for hardiness.
Paul E. Nyren, Dale Herman

76. Economic comparison of crop-livestock systems, 1983-1989
"The objective ... is to determine whether poorer, highly erodible land is best suited for annual crops or perennial forages." Grazing cattle was more profitable than crops overall.
Paul E. Nyren, William Slanger, William C. Nelson, Bob D. Patton, Brian S. Kreft

77. Wheat-sweetclover as an alternative cropping system to wheat-fallow, 1984
Eleven cropping systems involving wheat, fallow, and sweetclover as a green manure were tested. Grain and hay yields were determined. Wheat-sweetclover was found to be a good alternative to the wheat-fallow system.
Dwaine W. Meyer

78. Conifer shelterbelt planting, 1984
A nine-row shelterbelt was planted with five conifer species and five broad-leaved species of trees and shrubs. Survival rates were from 60 to 92% for the first year.
Paul E. Nyren

79. Shelterbelt planting, 1984-1985
Trees were planted at the livestock unit to test their hardiness.
Robert Heintz

80. Demonstration planting of poplars, 1989
A planting of poplars (*Populus* sp.) was established to study the control of leaf and stem diseases by the use of mixed cultivars.
Robert Stack, J.A. Walla

81. Economic comparison of hay and grazing CRP land, 1992-2004
The productivity and economic returns of haying and grazing CRP land, and cropping similar marginal land was studied. Grazing provided the best returns over the 12-year period.
Paul E. Nyren, Bob D. Patton, Brian S. Kreft, Cole Gustafson, David Lambert, Anne C. Nyren

82. Living snowfence, 1999
Trees and shrubs were planted in a 5-row pattern to test their effectiveness as a snowfence.
Paul E. Nyren

83. Switchgrass as a bioenergy crop in the Northern Great Plains: Field trial, 2001-2004
Switchgrass was tested in 10 locations, including CGREC. Over three tons per acre can be produced if good seed, seedbed preparation and weed control are utilized. Cultivars bred for pastures were used, as cultivars for biomass energy are still being developed.
Kenneth P. Vogel, Marty R. Schmer, Richard K. Perrin, L.E. Moser, Rob B. Mitchell

84. Shelterbelt around dugout, 2003
A shelterbelt was established around a dugout on Section 36 at CGREC.
Paul E. Nyren

85. Evaluation of ecosystem services provided by rangeland, 2005
The various benefits of the rangeland ecosystem are described and three indexes (biomass, water, beef) were selected to demonstrate their relative values and importance in land-use planning.
Xubin Pan, Shiping Wang, Guojie Wang, Xuejun Dong, Bob D. Patton, Anne C. Nyren, Paul E. Nyren

Wildlife

86. Effects of grazing systems on upland nesting birds, 1983-1989
A yearly census was made of sharp-tailed grouse (at their leks), ground nests, waterfowl pairs, and other breeding birds on the pastures of several grazing systems and an idle area. Vegetative cover data was also collected, and the dens of predators monitored.
Terry A. Messmer, Linda Messmer, Harold Goetz, William T. Barker, Dan Hertel, Kevin Sedivec

87. Nesting and brood rearing ecology of sharp-tailed grouse and grazing systems, 1984-1985
"The movements, nest locations, brood habitat use, and productivity of sharp-tailed grouse ... were monitored." Hens were fitted with radio transmitters, and vegetation cover was determined. Nest number was higher in the twice-over pasture and the idle area.
Kevin L. Grosz

88. Effects of grazing treatments on upland birds on CRP, 1992-1995
The nesting success of waterfowl, game birds, and non-game birds on CRP lands was studied on four sites in North Dakota, including CGREC. Nesting success on season-long and twice-over grazing systems was monitored, and vegetation data was collected (ducks only in 1995).
J.L. Gross, William T. Barker, Kevin Sedivec, Paul E. Nyren

89. Insect diversity and impact of grazing and haying on insects on CRP grasslands, 1995-1996
Insect populations on CRP sites in three counties, each with two grazing systems, a hayed area and an idle area, were sampled. High forage cover kept grasshopper numbers low.
Courtenay Harris

90. Impact of grazing systems and grazing intensity on non-game birds, 2001-2002
Bird surveys were conducted on the grazing intensity trial, other native pastures, idle areas, and two grazing treatments on CRP land, and compared with previous studies. Species richness and average density declined since 1990.
Eric D. Salo, Kenneth F. Higgins, William T. Barker, Kristel K. Bakker

Soils and Hydrology

91. State climatic studies and services (including soil water), 1985-1991
Climate and soil water data were collected from seven research centers, including CGREC, which comprised the North Dakota Agricultural Network (NDAWN). These data will be used to predict annual and long-term variation in soil water in the future.
John W. Enz

92. Soil water on two range sites with five grazing intensities, 1989-2005
Soil water was sampled at two-week intervals on silty and overflow range sites found on the grazing intensity trial. Heavily grazed pastures have less available soil water than other grazing treatments. Idle areas also had low levels of available soil water.
Bob D. Patton, Paul E. Nyren

93. Sediment production on CRP site: Effects of grazing, haying, idle, burning, 1995
A rainfall simulator was used to test runoff and sediment production on pastures in season-long and twice-over grazing systems, an idle area, a hayed field, and a burned area.
J.E. Gilley, Bob D. Patton, Paul E. Nyren, J.R. Simanton

94. Conserving soil water through grazing management, 1998
Water infiltration rates were measured on two grazing treatments. Soil on the moderately grazed pasture had a higher rate of infiltration than that of the extremely grazed pasture.
Chad L. Engels

95. Effect of grazing intensity on soil bulk density, 1999
Soil bulk density was sampled from moderately and extremely grazed pastures, and it was found that the intensity of grazing does affect the bulk density and thus the porosity of the soil.
Chad L. Engels

96. Simulated drought and grazing on mixed-grass prairie, 1999
Automated rainout shelters were used to limit the amount of rainfall on plots on a moderately grazed pasture. The effects of three rainfall treatments (drought, average, naturally occurring) on the plant species composition, production, basal cover, and density were determined.
Don Kirby, Wendi Rogers, Paul E. Nyren, Bob D. Patton

97. Quantifying plant water use on rangeland, 2001 (See also: Ecosystem modeling, 2002- 2005)
Leaf gas exchange and leaf area of rangeland plant species were determined. Soil parameters (texture, organic matter, soil water content, soil water characteristic curves, and hydraulic conductivity) were measured and compared for three grazing and two drought treatments. These values will be used in an ecosystem model to study the effect of drought.
Xuejun Dong, Paul E. Nyren, Bob D. Patton, Anne C. Nyren, David Hopkins, Jimmie L. Richardson, William T. Barker, Mario Biondini, Don Kirby, Jay Volk, Edward Deckard

98. Effect of grazing intensity on rangeland hydrology, 2001
A rainfall simulator was used on moderately and extremely grazed pastures to determine the amounts of infiltration, runoff, and erosion. Soil surface bulk density, vegetative cover, and biomass were also measured. Differences between the grazing treatments for these factors were noted, although infiltration rates on the moderately grazed pastures were variable.
Chad L. Engels

99. Soil health in relation to grazing, 2003
Soil samples from four grazing systems (with several grazing intensities), idle CRP land, and a non-use native range indicate that greater root depth and biodiversity are found on the rotational grazing and the light/moderate continuous grazing systems.
Jay Volk, William T. Barker, Jimmie L. Richardson

100. Interaction of simulated drought and grazing on rangeland, 2003
"The objectives ... are to evaluate herbage production, basal cover, and forb frequency and composition on moderate and extreme grazed prairie subjected to simulated drought (75% of average), average precipitation and naturally occurring precipitation" using rainout shelters. Timing of rainfall appears to be more critical to forage production than seasonal totals.
Ryan Limb, Don Kirby, Paul E. Nyren, Bob D. Patton

101. Impacts of land use on soil quality, 2004
Trenches were dug to collect multiple soil samples at various depths on rotational and season-long grazing systems and an idle area. Physical properties of the soil were analyzed. The highest infiltration rates and macro porosity were found on the rotationally grazed site.
Jay M. Volk, Jimmie L. Richardson, R. Utter, William T. Barker

Weather

102. Weather data collection for the National Weather Service, 1981-present
Daily weather information is gathered from a weather station at CGREC established in 1981.
Paul E. Nyren, Anne C. Nyren

103. Automated system for weather data collection for the NDSU- North Dakota Agricultural Weather Network (NDAWN), 1982-present
Daily weather information is gathered from a weather station at CGREC established in 1982.
Paul E. Nyren, Anne C. Nyren

Forage sampling on grazing intensity trial.

Graduate Students at CGREC

To date, thirty graduate students and visiting scholars have conducted work at the Center, enabling them to complete their degrees in animal and range science, botany, ecology, wildlife science, economics, soils, or hydrology. All were North Dakota State University students unless noted.

Charles L. Lura. 1985. Range plant communities of the Central Grassland Research Station. Ph.D.

Theresa A. Ransom-Nelson. 1985. Ecology, phytosociology, growth, and production of western snowberry (*Symphoricarpos occidentalis* Hook.) in south-central North Dakota. M.S.

Herbert Webb. 1985. Forage production, disappearance and cow diets on short duration and season long grazing treatments in south-central North Dakota. M.S.

Brian J. Wienhold. 1985. A comparison of twice-over rotation grazing to seasonlong grazing in central North Dakota. M.S.

Jon Alstad. 1987. A comparison of a four pasture, twice-over deferred rotation grazing system to seasonlong grazing in south-central North Dakota. M.S.

James F. Baltezore. 1987. Economic analysis of crop, livestock, and range systems. M.S.

Susan Benson. 1987. Western wheatgrass tiller dynamics under short-duration grazing. M.S.

Virginia Emly. 1987. Evaluation of four grazing intensities under short duration grazing. M.S.

Douglas Green. 1987. Composition, production disappearance, and nutritive content of wetland vegetation on the Missouri Coteau. M.S.

Daniel Hertel. 1987. Effects of grazing systems used by upland nesting waterfowl in south central North Dakota. M.S.

Kevin Grosz. 1988. Sharp-tailed grouse nesting and brood rearing habitat in grazed and nongrazed treatments in southcentral North Dakota. M.S.

Kevin Sedivec. 1989. Effects of specialized grazing systems on upland nesting waterfowl production in south central North Dakota. M.S.

Steve Silcox. 1991. Cattle diet in the northern Great Plains: seasonal influences on composition intake and *in situ* degradability. M.S.

David Hirschfeld. 1992. Influence of season-long and short-duration grazing management on intake, composition, and *in situ* degradability of cattle diets in the northern Great Plains. M.S.

K.C. Olson. 1993. Influence of advancing season and yeast culture on forage use and digestive function in steers grazing mixed grass prairie in the Northern Great Plains. M.S.

Ahmed Rashid Shariff. 1993. Net primary productivity and nitrogen dynamics as a function of grazing intensity. Ph.D.

Carmen L. Kennedy. 1994. Effects of grazing on nongame breeding birds, insects, and vegetation in Conservation Reserve Program grasslands in North Dakota. M.S., South Dakota State University.

Kevin Sedivec. 1994. Grazing treatment effects on and habitats use of upland nesting birds on native rangeland. Ph.D.

Courtenay Harris. 1996. Effects of grazing and haying on arthropod diversity in North Dakota Conservation Reserve Program grasslands. M.S., South Dakota State University.

Christopher S. Schauer. 2000. Self-limiting supplements fed to cattle grazing mixed-grass prairie in the Northern Great Plains. M.S.

Chad Engels. 2002. The effect of grazing intensity on rangeland hydrology. M.S.

Wendi Rogers. 2002. Impact of 12 years of season-long grazing on the spatial distribution of forbs and soil carbon. M.S.

Eric D. Salo. 2003. Effects of grazing intensity and temporal application of grazing treatments on non-game birds in North Dakota mixed-grass prairie. M.S., South Dakota State University.

Jay Volk. 2003. Fertilization of intensively and moderately grazed mixed grass prairie with slow-release phosphorus and urea. M.S.

Ryan Limb. 2005. Interaction of simulated drought and grazing intensity on northern mixed grass prairie on rangeland. M.S.

Bryan W. Neville. In progress. Comparison of three forages in swath grazing. M.S.

Visiting Scholars From China

All students are from Institute of Botany, Chinese Academy of Sciences, Beijing, China

Xubin Pan. 2005. Evaluation of ecosystem services provided by the Coteau rangeland of North Dakota.

Danjun Wang. 2005. Plant responses to different grazing intensities in the Missouri Coteau of North Dakota.
2006. Competition between smooth bromegrass and western wheatgrass under different clipping intensities in replacement mixtures at different soil watering levels.

Guojie Wang. 2004. Vegetation response to grazing intensity: Above- and below-ground biomass.
2005. Grazing effects on the mixed-grass prairie seed bank in the Coteau Region of North Dakota.

Jinzhi Wang. 2006. Modeling simulation of North Dakota grassland management.

What the Future Holds for the Central Grasslands Research Extension Center

Paul E. Nyren, Director

Future plans for the CGREC center around research and extension programs for sustaining and improving the natural resources of the Coteau region for the citizens of North Dakota.

Ecophysiology

The Center is developing an ecophysiology program to study the details of the complex plant communities of the mixed-grass prairie. Eventually, this study will produce a computer model that will assist land managers in decision-making that today takes months or years of work to accomplish. Part of this study will evaluate carbon sequestering or carbon storage in the soil. Carbon payments to producers are now a reality and many expect prices to increase. For ranchers to receive a fair price for carbon storage on their rangeland, the storage potential needs to be documented.

Nature-based Tourism

The Center is working to develop a rural and natural resources tourism center. This facility would assist individuals in developing a network of tourist activities throughout the Coteau. This region is becoming a vacation destination for people interested in all aspects of natural resource tourism. Birding, hunting, hiking, historical re-enactments, and agri-tourism are potential areas for development. Kidder County is listed as the eighth best birding destination in the nation by a national birding organization. The CGREC can assist in habitat development and training sessions for those wishing to provide these opportunities for visitors.

Ethanol Production

Biofuels is becoming an important topic with the increase in fossil fuel prices. The CGREC is taking the lead on a biomass-for-ethanol project that will be located on six sites across central and western North Dakota. This study will evaluate several grasses and grass-legume mixtures harvested annually and biennially. Additional studies will be needed to evaluate the cultural practices involved in producing biomass crops, such as the use of commercial fertilizer vs. legumes, strip harvests, and methods to maintain productive stands without reseeding.

International Scholar Program

For the past three years the CGREC has hosted students and faculty from the Chinese Academy of Science, Institute of Botany in Beijing, China. Graduate students come to the CGREC to study our grasslands and production practices and write reports in both English and Chinese. These exchanges help the Center to attract top-notch students and foster information exchange. The plant communities in Inner Mongolia are very similar to those of the Northern Great Plains of the U.S. By comparing data from their research center in Inner Mongolia with those of the CGREC, we get a better understanding how grazing histories affect range plant communities and how to avoid some of the problems that rangeland managers face in other parts of the world.

Expansion of Facilities

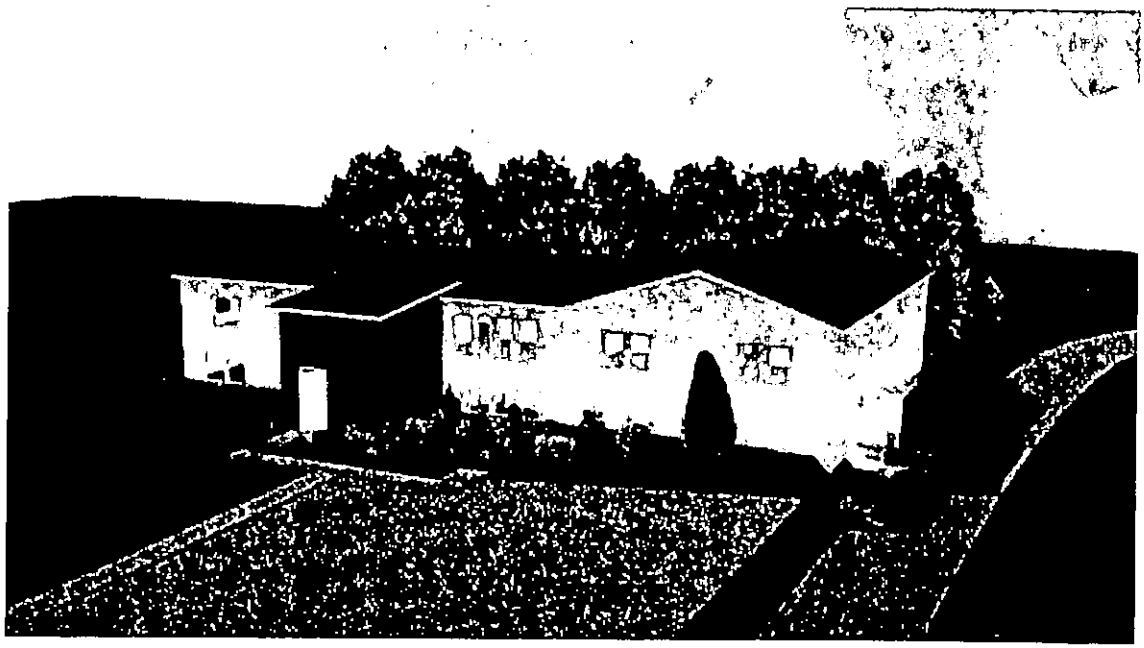
We hope to extend this program further by offering faculty and students from colleges in the U.S. a place to study the Coteau grasslands and wetlands. The addition to the office will allow more room for office and laboratory space. The Coteau region of the Northern Great Plains is the largest of its kind in the world. It is a unique area that should attract scientists interested in studying the many different plants, animals, and habitat types that occur here.

Model Farm

The Model Farm is an on-going and fluid demonstration of the best management practices in the Coteau region researched at NDSU and CGREC. The Model Farm is open for viewing and public instruction. In the future, the Model Farm will likely be used to assist producers in a unique process-based learning experience by providing a decision-making framework.

Niche & Value-added Markets

One focus that CGREC may pursue in the future is that of niche and value-added marketing. In recent studies conducted by NDSU and other agencies, the public has indicated a significant interest in value-added products. People are interested in niche market opportunities such as organic, natural, and grass-fed beef, "green" (environmentally friendly and sustainable) farming, organic grain crops, and many other non-traditionally raised crops and livestock. As pressure is increased on local producers to raise their crops and livestock in a sustainable manner, research will be needed to support these new methods.



CGREC office building with addition.

Advisory Board Members: Past & Present

Keith Bartholomy
Dave Borlaug
Rod Burgad
Dawn Charging
Tom Conlon
Kevin Cooper
Jack Dahl
Gerhardt Dewald
Lea Dewald
Dennis Dockter
Elmer Dockter
Mark Dockter
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Raymond Schnell
Paul Smokov
Tom Vandeberghe
Bill Well
Clayton Wolff

Acknowledgments

The staff of CGREC would like to thank the following organizations, businesses, and individuals who have supported the Center throughout the years:

North Dakota Legislature
Jamestown/Stutsman Development Corporation
Stutsman County Soil Conservation District
Foundation for Economic Research
Ducks Unlimited
Environmental Protection Agency (EPA)
Area IV Soil Conservation Districts
U.S. Fish and Wildlife Service
Soil Conservation Service, Jamestown
Lewis and Clark RC & D
South Central Regional Council
State NRCS Office
SDSU Wildlife Coop Unit
USDA – ARS, Mandan
USDA – ARS, Lincoln NE
NDSU Main Station, Fargo
State Board of Agricultural Research
Northern Great Plains Research Laboratory
NRCS Plant Materials Center
U.S. Farm Services Administration
Local & Area Newspapers
NDSU Extension Service
USDA – Sustainable Agriculture Research and Education
North Dakota Natural Resources Trust
Dakota Central Telecommunications Coop
State Bank of Streeter
Northland Financial Banking
Napoleon Livestock Auction, Inc.
Logan County Soil Conservation District
Kidder County Soil Conservation District
Ray Erbele and participants in the Steer Classic
Otto and Lea Dewald
Ray and Mary Heupel
ElRay and Delight Fercho
Bill and Janet Well
Streeter Community
Past and present employees
Past and present advisory board members
Many others, including the North Dakota taxpayers

HB 1020 January 15, 2007
Handout #7a

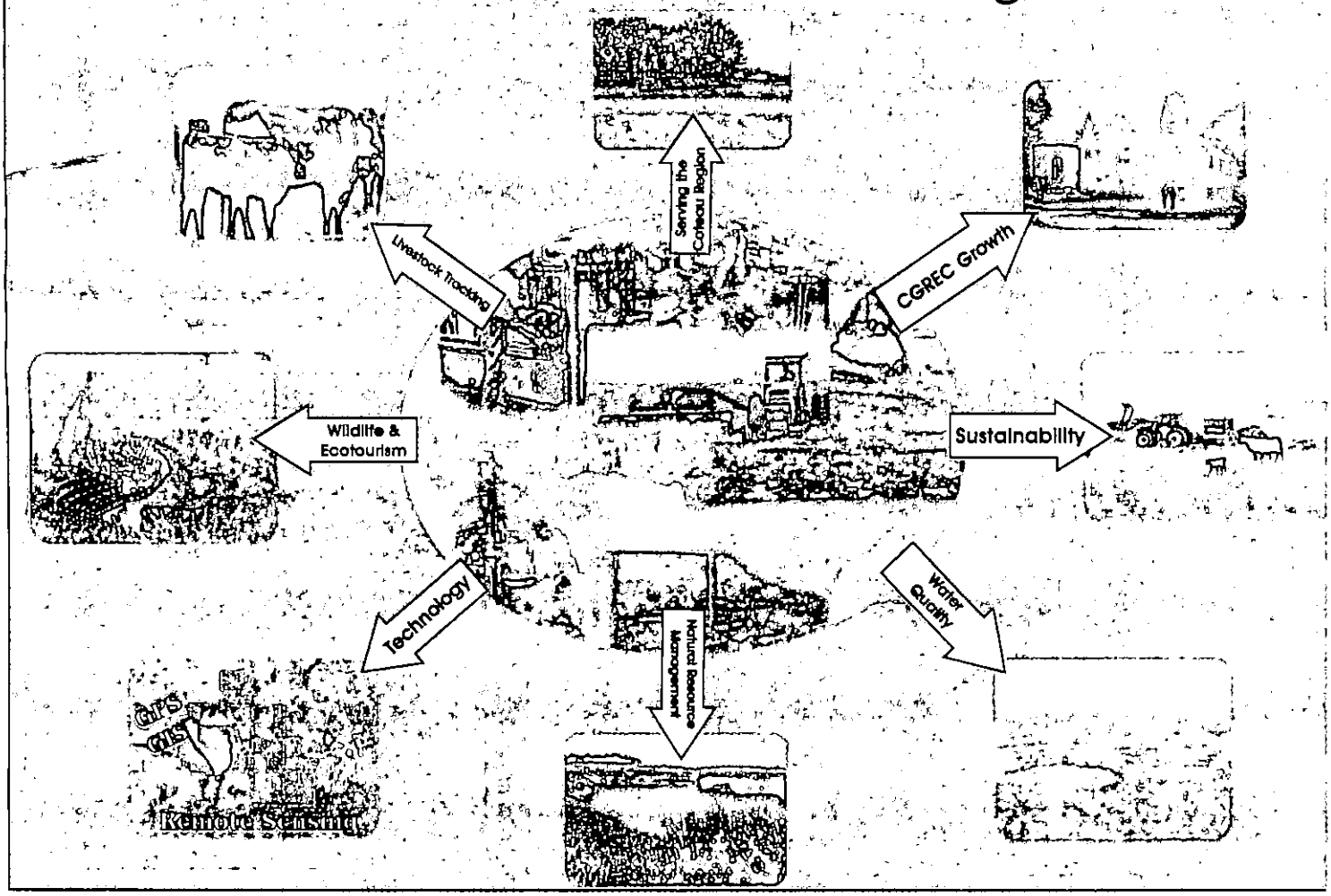
North Dakota State University

CGREC

Central Grasslands Research Extension Center

2006 Grass & Beef Research Review

"Improving and Enhancing the Natural Resources of the Coteau Region"



Contact Central Grasslands for a copy—

AGENCY OVERVIEW

Hettinger Research Extension Center

North Dakota Agricultural Experiment Station

Agency Statutory Authority

Century Code 4-05.1

Agency Description

The HREC is a semiarid site in southwestern North Dakota, providing the most southerly NDSU location in the nonglaciated portion of North Dakota as a site for its agronomy research program. The HREC also is appropriately at the center of the North Dakota sheep industry, which is 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 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 game bird populations. Research at the HREC involves the disciplines of animal science, range science, agronomy, and agri-business and applied economics. Collaboration is with Main Station scientists, branch station scientists and USDA research entities in these research disciplines to improve productivity of livestock and cropping systems, and 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

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 June 14, 2006. 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

Labor force deficiencies continue to force constraints on scientists and staff. The previous loss of a technical support position, as well as increased reporting and changes due to software, has stressed the staff considerably. Additional technical support positions are needed desperately.

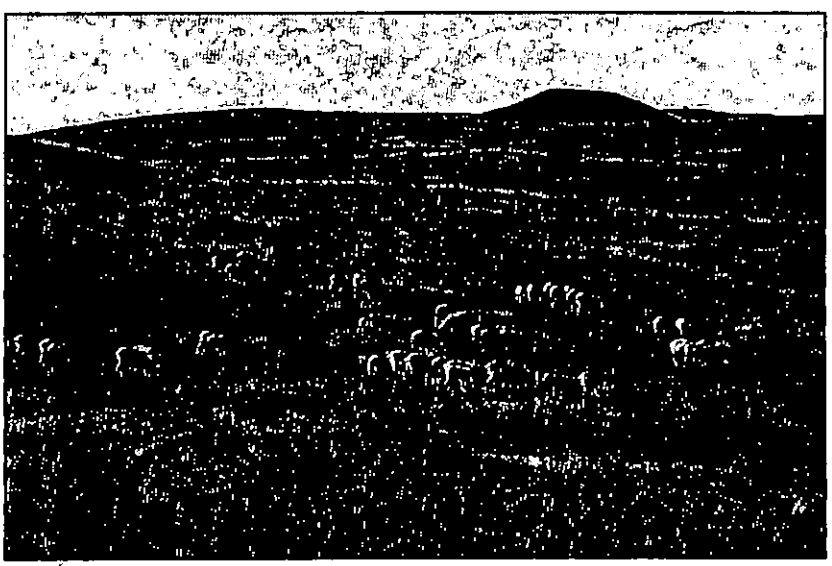
The HREC office complex is in need of an expansion. Office space is limited, with staff sharing offices because of the lack of office space.

The current drought will create special concerns because of unexpected reductions in available funding because of loss of production.

Additional state funding for the core program at the HREC is needed to adequately support and conduct our baseline research programs.

Hettinger Research Extension Center

- Initiated a research project, "Evaluation of Remote Sensing Technologies on the Grand River National Grasslands," with the USDA Forest Service and Grand River Cooperative Grazing District that will utilize satellite imagery to estimate forage use and production
- Initiated a research project, "Evaluating Environmental and Economic Consequences of Multiple-use Management of Agricultural Lands in the Northern Great Plains," in collaboration with Larry Leistritz and Kevin Sedivec from the NDSU campus and Chris Schauer and Dan Nudell from the HREC
- Continued a livestock emphasis on value-added animal production, which is a research program focusing on evaluating forage, grain, byproduct and marketing alternatives in calf backgrounding and lamb finishing
- Continued research evaluating the control of leafy spurge with sheep and cattle, as well as reproductive management techniques for out-of-season lambing
- Continued to receive funding from the USDA-Agricultural Research Service disease research unit at Pullman, Wash., to support a project monitoring the "R" gene for resistance to scrapie in sheep
- Distributed foundation seed produced at NDSU Research Extension Centers, making new varieties available to southwestern North Dakota producers
- Conducted 53 crop trials and 23 pesticide trials, as well as off-station variety testing at Regent, Scranton, New Leipzig, Selfridge, Reeder and Mandan
- Began evaluating new varieties and technologies for growing drought-tolerant corn and wheat
- Started a research project that will evaluate land transfer patterns in the northern Great Plains during the past 20 years
- Continued "Expanding Ruminant Livestock Production in the Northern Great Plains: An Assessment of Resources, Opportunities and Constraints"
- Continued "Uncertainty in the Northern Great Plains," as well as collaboration with HREC scientists on various research projects
- Continued support of the HREC video conference facility, computer desktop support in southwestern North Dakota and 21st Century Learning Centers



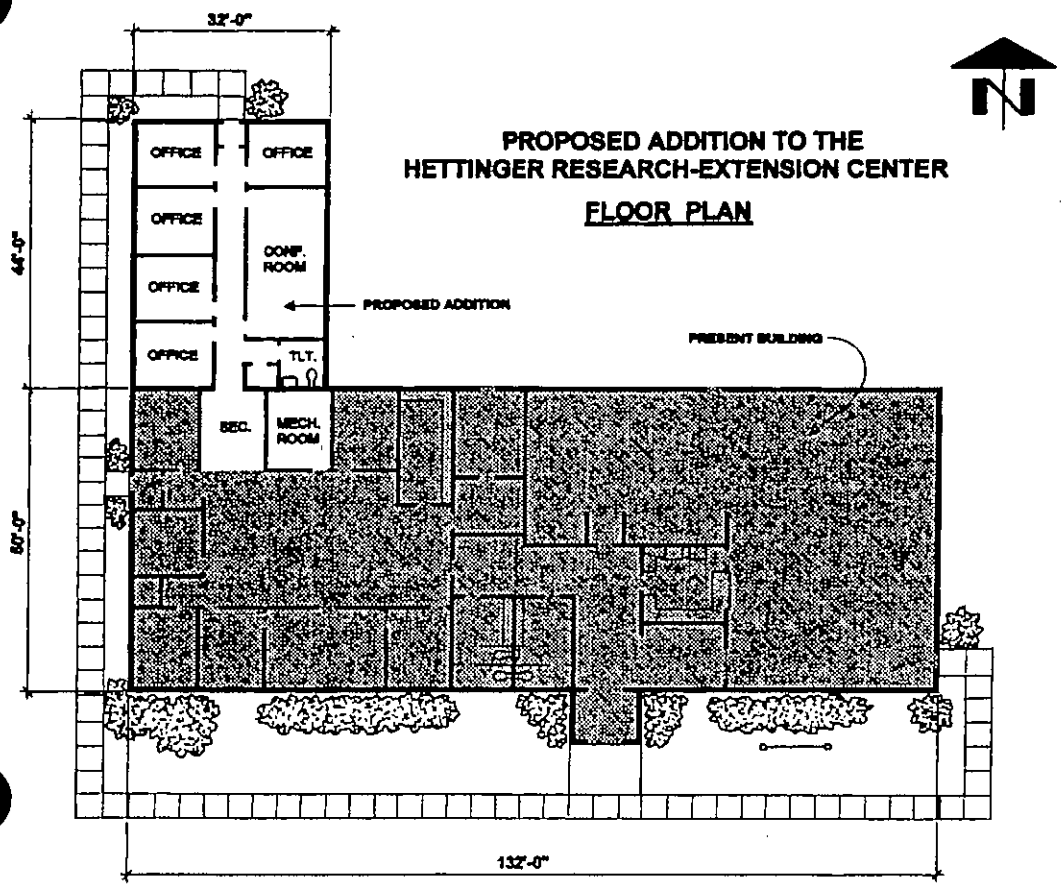
HREC researchers use sheep to control leafy spurge.

2007-09 Major Capital Projects

Hettinger Research Extension Center

Headquarters Office Addition $222,750

Construction and dedication of the existing center was completed in 1991. Funds utilized to establish the facility were from community and grant fund sources, without any requirement for North Dakota general fund dollars. Use of the facility has grown to the point the center needs more room for office and conference uses. Three of the newer efforts the HREC is targeting will come with requirements for office space that cannot be met currently. They are: 1) Use of remote sensing for monitoring forage use and production on Forest Service lands; 2) Alternative uses of Conservation Reserve Program lands; and 3) Alternative bioenergy crops. Some staff members are sharing offices, limiting the addition of new scientists acquired through grants. These new efforts are of vital importance to the landowners and managers of southwestern North Dakota, and without the proposed addition, the HREC does not have enough office space to accommodate these programs. The proposed project consists of the construction of an addition to the existing REC office/meeting building that would include additional office space, equipment storage and a geographic information system computer lab. The Hettinger Research Extension Center was established in 1909. Center staff anticipate the addition would be completed in time to be dedicated during the HREC's centennial celebration in summer 2009. The estimated 1,500- square-foot addition would allow for an expansion of our research and outreach programs to southwestern North Dakota.



AGENCY OVERVIEW

Williston Research Extension Center

North Dakota Agricultural Experiment Station

Agency Statutory Authority

Century Code 4-05.1

Agency Description

The Williston Research Extension Center, 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 157 acres were purchased in Nesson Valley to develop an irrigated research and development project. 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. Barley, oats, safflower, annual pulse crops, canola, flax, alfalfa and other alternative 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. Soil and crop management systems for sprinkler irrigation and alternative irrigated high value and value-added crop research, including the Western Malting Barley program, also are conducted in the MonDak Region in cooperation with the Montana State University (MSU) Eastern Agricultural Research Center (EARC), Sidney. The center also conducts safflower, winter wheat and durum breeding research and variety evaluations in cooperation with MSU and NDSU Main Station scientists. WREC produces and supplies area farmers with foundation seed of cultivars adapted to the region. Formal cooperation between the NDSU WREC and the MSU EARC was established in January 1994, with a single director responsible to coordinate, broaden and enhance research programs and educational delivery systems for the MonDak Region.

Agency Mission Statement

The Williston Research Extension Center conducts research to increase agricultural productivity in the semiarid region of 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 also is conducted in cooperation with the Montana State University Eastern Agricultural Research Center at Sidney.

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 June 14, 2006. 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

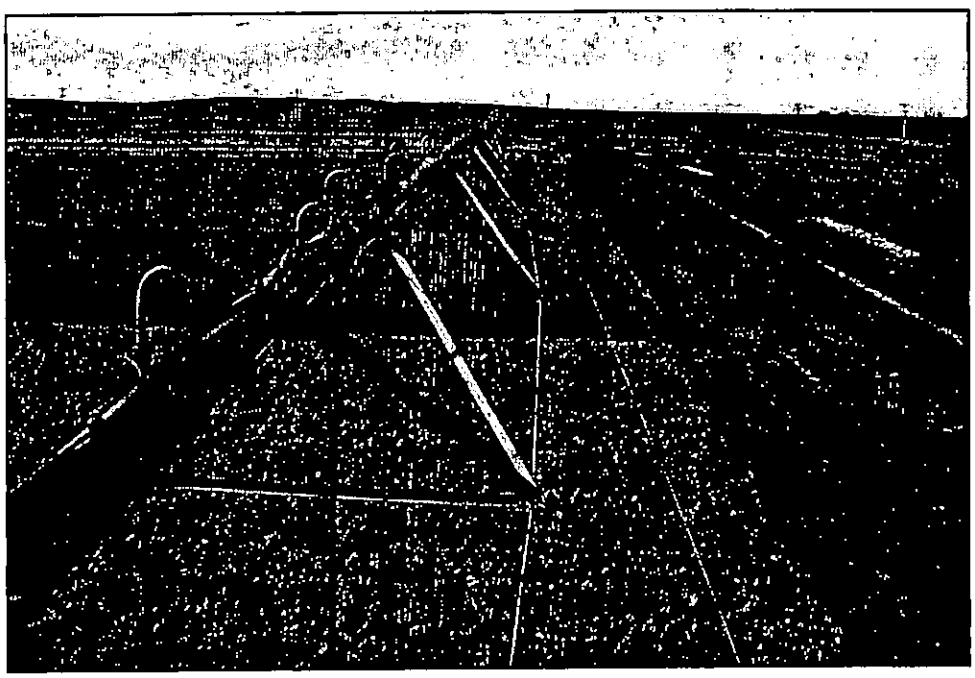
AGENCY OVERVIEW: Williston Research Extension Center

Agency Future Critical Issues

- Fully implement the NDSU MonDak Irrigation Research and Development Project in Nesson Valley in the 2007-2009 biennium, with the WREC's top priority being personnel support and operating for the project site 25 miles east of Williston
- Derive information from WREC research projects and cooperative projects in partnership with the Montana State University Eastern Agricultural Research Center (EARC) to help producers in northwestern North Dakota (and eastern Montana) make management decisions to reduce workload, improve soil health, reduce erosion and achieve greater economic return
- Assess the benefits of diversifying the predominantly wheat and wheat-fallow crop rotations with alternative crops (peas, lentils, chickpeas, safflower and canola)
- Promote the MonDak region and its producers as preferred suppliers of identity-preserved wheat, durum, malt barley, lentil, pea, potato and safflower products to food processors
- Build partnerships and alliances among growers, economic development groups, agribusinesses and food processors

Williston Research Extension Center

- Increased irrigated/dryland malt barley production in the Mondak Region from nil in 1998 to 22 million bushels in 2006
- Increased potato production and potato storage facilities in the MonDak region and brought a certified seed potato production operation to northwestern North Dakota as the result of research and a demonstration potato project
- Installed linear overhead irrigation research systems for the research and development irrigation project in Nesson Valley, 23 miles northeast of Williston, to foster the growth of irrigation and food processing industries of high value/value added crops
- Developed the Ernie French Technology Transfer Center at WREC into a regional outreach hub that serves farmers, ranchers and agribusiness in the MonDak region
- Hosts an annual economic development conference at the Ernie French Technology Transfer Center
- Participates annually in an Ag Open and ag tours of the area each August to build partnerships and alliances among growers, economic development groups, agribusinesses and food processors
- Established a yield map database of the center's fields to investigate the consistency of yield patterns and determine usefulness of crop yield mapping in crop management



The WREC installed linear overhead irrigation systems for its irrigation research and development project in Nesson Valley 25 miles east of Williston.

January 15, 2007
HB 1020
Handout #6

Testimony on HB 1020 –January 15, 2007
House Appropriations

For the record my name is Timothy Faller, Asst. Director of the North Dakota Agricultural Experiment Station. Previously I spent thirty-seven years as the Director of the Hettinger Research Extension Center and today I have a unique responsibility of presenting information on behalf of the budget request for the Williston Research Extension Center. Neil Riveland, a scientist at the Williston Center is with us and will help to answer any specific question you might have on the operations and programs at the center

I would like to give you a short analogy that supports my vision of the mission and accomplishments of the center. Knowing the lack of strength for a single fiber it easy to envision the additional strength created when fibers are spun into a thread and the further strength realized when threads are woven together into a cloth. The model that the Williston Research Extension Center has accepted is to be integrally involved in the economic development of an area that includes two states working together using state and federal research resources to support agriculture as the driver of growth. The Williston Center has become an important thread in a cloth called the Mon-Dak Region.

Realizing what a humble lot Research Center Directors are, it is refreshing to have full license to brag on another's behalf. The Williston Research Extension Center (WREC) has used past resources that you have provided well and stayed within priority parameters developed by SBARE.

Additional resources beyond the base budget provided to the WREC for the 2005-2007 biennium has accomplished the following:

- **$12,000 Operating funds** were committed to support additional costs associated with the cost of operating the ITD site on the center and rising cost of fleet services which is critical to conducting a program of agricultural discovery and dissemination.
- **$100,000. Extraordinary Repair Funds** were utilized to construct basic equipment storage facilities at the new Nesson Valley irrigation site. This will both add longevity to expensive equipment and provide security at this Un-inhabited site.
- **$118,105. Western Malt Barley Initiative** funds that had been provided in past bienniums were put in the WREC base budget to assist future support of the malting barley industry in the Mon-Dak Region.

The WREC has provided a long research history providing leadership to dryland agriculture in North West North Dakota. What has changed is the recent partnership with Montana State University and the Eastern Agricultural Research Center that adds much needed Irrigation research resources to North Dakota and brings WREC dryland work across the border to Montana. This partnership across provincial lines will clearly bear fruit for many years, reducing duplication, and providing latest technology to

growers in the Mon-Dak Region regardless if their future is in irrigation or dryland agriculture.

The vision is that for every pivot or similar irrigation system added in the region –a new job is created. That vision anticipates that once sufficient production levels are reached the potential of processing facilities locating in the region is increased which will provide additional jobs beyond the one per pivot. Processing on site will provide co-products that will also help grow the livestock industry in the region.

I would like to share with you a short list of accomplishments;

- Malt barley production in the region has increased from nil in 1998 to 22 million bushels by 2006.
- Potato production has increased greatly including the addition of new potato Storage facilities and certified seed potato production.
- Many new varieties of; Safflower, Hard White Wheat, Hard Red Winter Wheat, and now new barleys are direct results of the work of the WREC.
- New irrigations systems are growing at a rapid rate.
- A minimal program of research and outreach in the area of Horticulture has been developed in response to a rapid increase in interest by area constituents. including consideration of many different fruits for potential wine production.
- This short list snapshot clearly indicates dynamics in the program at WREC.

The Director and staff of the WREC wish to thank the Legislature for past support. Prioritization by SBARE and inclusion of many top ranking initiatives in the Governors proposed budget will greatly assist WREC in meeting needs of constituents in northwest North Dakota.

Un-met Needs

Inclusion of funds in the WREC budget for the #10 priority of SBARE which was for an irrigation scientist would greatly assist progress in developing irrigation in the region. **On page 83 of the budget book** you will find the request for **$180,000.** This does not include adequate funds for technical support and operating for a new scientist to develop his research program in the Nesson Valley. Biennial support of a technician and operating funds would require an additional **$120-140,000.** or a total need of **$320,000.**

Jerry Bergman the director at WREC was asked to participate as a part of a delegation at the Northwest Food Processors Show and Exposition in Portland Oregon. The objective of the delegation was to encourage development of potato processing facilities within the Mon-Dak Region which is the reason for his absence today.

In your 2007-09 legislative deliberations I hope that you will carefully consider the need for additional irrigation research presented to you by WREC. It would certainly strengthen that cloth called the Mon-Dak region.

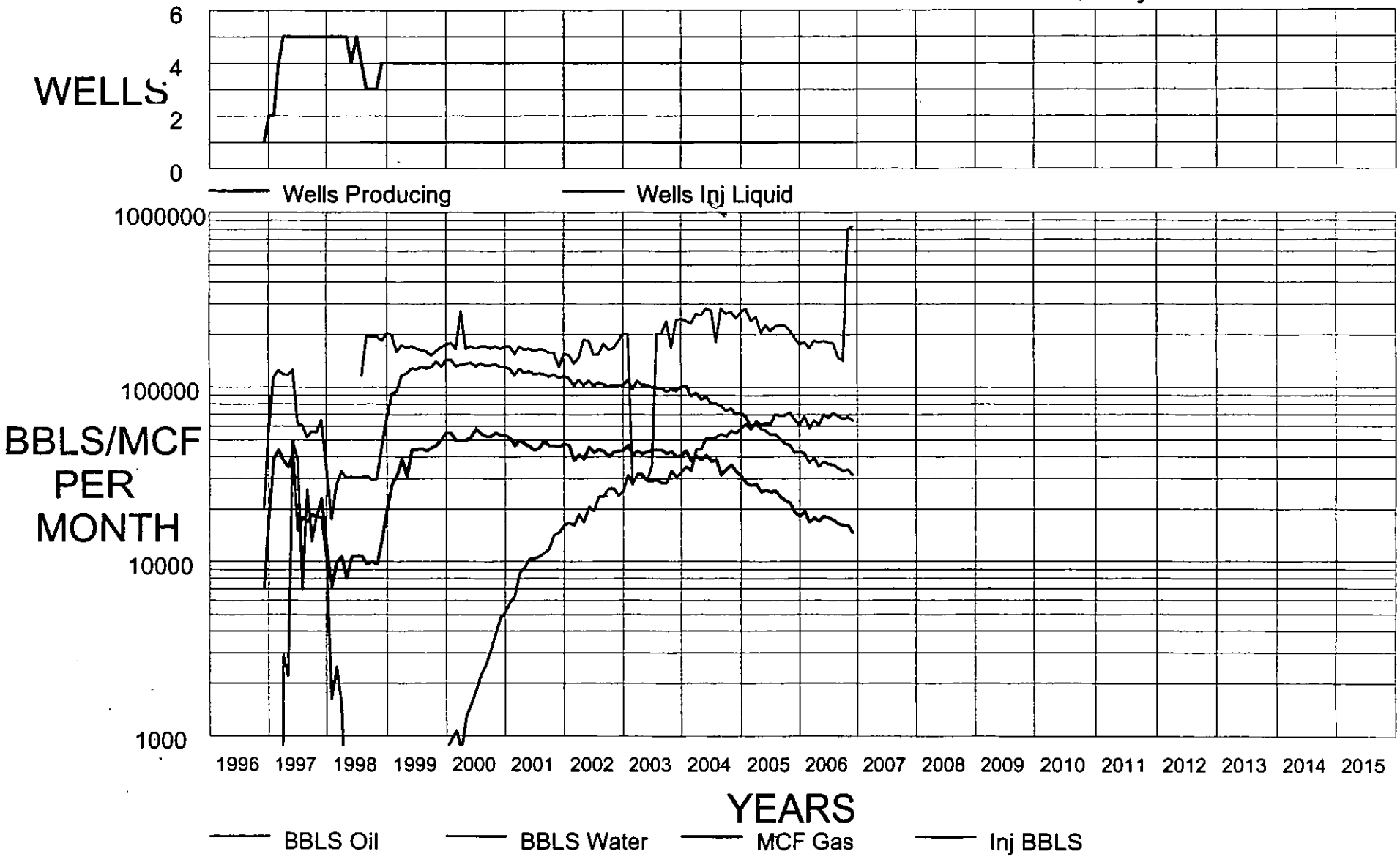
Respectfully submitted:
Timothy C. Faller

1/23/2007

Handout
Bill #1020

STADIUM-LODGEPOLE UNIT

Cum Oil = 10506836
Cum Water = 3066551
Cum Gas = 4099862
Cum Ini BBLS = 19773580
Cum Inj MCF = 0



Stadium Lodgepole					ND Sweet	ND Gas	DSU		Exp Station	
Date	BBLS Oil	BBLS Water	MCF Gas	Wells Prod	Price	Price	Interest	**Revenue**	Interest	**Revenue**
Nov-96	20704	0	7050	1	$20.84	$2.25				
Dec-96	58233	65	17896	2	$22.10	$3.50				
Jan-97	113496	0	38957	2	$22.34	$4.18				
Feb-97	124778	0	43609	4	$19.37	$2.48				
Mar-97	116819	2896	37914	5	$17.88	$1.40				
Apr-97	117231	2207	34670	5	$16.88	$1.43				
May-97	125770	49264	41784	5	$17.74	$1.63				
Jun-97	62769	38101	15016	5	$15.94	$1.46				
Jul-97	60725	6908	17750	5	$16.32	$1.44				
Aug-97	51829	25866	16838	5	$16.56	$1.38				
Sep-97	56189	13069	18530	5	$16.43	$1.47				
Oct-97	55328	18219	17900	5	$17.96	$2.10				
Nov-97	65107	17764	22781	5	$16.75	$2.99				
Dec-97	33278	10825	11767	5	$14.99	$1.94				
Jan-98	17556	1620	7110	5	$13.16	$2.04				
Feb-98	27740	2477	9869	5	$12.51	$1.70				
Mar-98	33162	1505	10612	5	$11.35	$1.88				
Apr-98	30325	201	7970	5	$11.68	$1.90				
May-98	30673	283	10579	4	$11.04	$1.96				
Jun-98	30308	209	10681	5	$9.64	$1.64	0.0000415857	**$12.88**	0.0325796768	**$10,089**
Jul-98	30523	80	10684	4	$10.05	$1.61	0.0000415857	**$13.47**	0.0325796768	**$10,554**
Aug-98	31282	0	9607	3	$9.44	$1.73	0.0000415857	**$12.97**	0.0325796768	**$10,162**
Sep-98	29466	0	10015	3	$10.93	$1.55	0.0000415857	**$14.04**	0.0325796768	**$10,998**
Oct-98	29951	0	9557	3	$10.41	$1.65	0.0000415857	**$13.62**	0.0325796768	**$10,672**
Nov-98	46802	0	13556	4	$8.80	$1.97	0.0000415857	**$18.24**	0.0325796768	**$14,288**
Dec-98	67841	0	19840	4	$6.64	$1.96	0.0000415857	**$20.35**	0.0325796768	**$15,943**
Jan-99	92013	32	27720	4	$8.40	$1.75	0.0000415857	**$34.16**	0.0325796768	**$26,762**
Feb-99	94974	422	31062	4	$7.86	$1.61	0.0000415857	**$33.12**	0.0325796768	**$25,950**
Mar-99	116335	265	38348	4	$10.49	$1.49	0.0000415857	**$53.13**	0.0325796768	**$41,620**
Apr-99	119750	52	30680	4	$13.21	$1.53	0.0000415857	**$67.74**	0.0325796768	**$53,067**
May-99	128516	72	43997	4	$13.86	$1.98	0.0000415857	**$77.70**	0.0325796768	**$60,870**
Jun-99	126954	182	43821	4	$13.86	$1.93	0.0000415857	**$76.69**	0.0325796768	**$60,082**
Jul-99	130336	196	44461	4	$15.91	$2.09	0.0000415857	**$90.10**	0.0325796768	**$70,586**
Aug-99	128574	117	43058	4	$17.01	$2.58	0.0000415857	**$95.57**	0.0325796768	**$74,872**

Stadium Lodgepole Date	BBLS Oil	BBLS Water	MCF Gas	Wells Prod	ND Sweet Price	ND Gas Price	DSU Interest	Revenue	Exp Station Interest	Revenue
Sep-99	130036	283	44856	4	$18.56	$2.43	0.0000412490	**$104.05**	0.0324808170	**$81,932**
Oct-99	140477	392	46497	4	$19.39	$2.51	0.0000412490	**$117.17**	0.0324808170	**$92,264**
Nov-99	131412	386	49902	4	$20.83	$2.01	0.0000412490	**$117.05**	0.0324808170	**$92,168**
Dec-99	143717	842	54633	4	$21.74	$1.96	0.0000412490	**$133.30**	0.0324808170	**$104,961**
Jan-00	143354	947	54254	4	$22.59	$1.99	0.0000412490	**$138.03**	0.0324808170	**$108,692**
Feb-00	131530	1066	49048	4	$25.08	$2.19	0.0000412490	**$140.50**	0.0324808170	**$110,636**
Mar-00	134228	834	49618	4	$26.09	$2.36	0.0000412490	**$149.28**	0.0324808170	**$117,552**
Apr-00	136391	1295	49673	4	$21.33	$2.61	0.0000412490	**$125.35**	0.0324808170	**$98,705**
May-00	138462	1500	51514	4	$24.33	$3.36	0.0000412490	**$146.10**	0.0324808170	**$115,043**
Jun-00	131571	1816	57676	4	$27.08	$3.86	0.0000412490	**$156.15**	0.0324808170	**$122,958**
Jul-00	137322	2237	54039	4	$25.48	$3.69	0.0000412490	**$152.55**	0.0324808170	**$120,126**
Aug-00	132592	2530	52178	4	$26.53	$3.96	0.0000412490	**$153.62**	0.0324808170	**$120,968**
Sep-00	133374	3088	51982	4	$29.16	$4.56	0.0000412490	**$170.20**	0.0324808170	**$134,023**
Oct-00	136033	3869	54651	4	$28.26	$4.62	0.0000412490	**$168.99**	0.0324808170	**$133,067**
Nov-00	130694	4722	53177	4	$29.75	$5.46	0.0000412490	**$172.36**	0.0324808170	**$135,721**
Dec-00	131091	5116	52978	4	$23.68	$8.29	0.0000412490	**$146.16**	0.0324808170	**$115,093**
Jan-01	127155	5818	50978	4	$24.70	$6.84	0.0000412490	**$143.94**	0.0324808170	**$113,339**
Feb-01	116897	6390	46018	4	$25.02	$5.34	0.0000412490	**$130.78**	0.0324808170	**$102,980**
Mar-01	127163	8605	49742	4	$22.53	$4.74	0.0000412490	**$127.90**	0.0324808170	**$100,715**
Apr-01	120815	9240	47317	4	$22.78	$4.76	0.0000412490	**$122.81**	0.0324808170	**$96,708**
May-01	123938	10312	45722	4	$23.58	$3.80	0.0000412490	**$127.72**	0.0324808170	**$100,567**
Jun-01	118098	10439	43426	4	$22.48	$3.35	0.0000412490	**$115.51**	0.0324808170	**$90,957**
Jul-01	119662	10662	44809	4	$21.41	$2.77	0.0000412490	**$110.80**	0.0324808170	**$87,246**
Aug-01	118663	11198	48985	4	$22.15	$2.41	0.0000412490	**$113.29**	0.0324808170	**$89,207**
Sep-01	114821	11810	45939	4	$21.41	$1.82	0.0000412490	**$104.85**	0.0324808170	**$82,564**
Oct-01	118803	14105	45939	4	$17.08	$2.05	0.0000412490	**$87.59**	0.0324808170	**$68,967**
Nov-01	112762	14653	45584	4	$14.53	$2.46	0.0000412490	**$72.21**	0.0324808170	**$56,860**
Dec-01	115678	16090	47144	4	$14.34	$2.31	0.0000412490	**$72.92**	0.0324808170	**$57,417**
Jan-02	112967	16618	46476	4	$14.82	$1.63	0.0000412490	**$72.19**	0.0324808170	**$56,845**
Feb-02	102098	16143	37746	4	$15.91	$1.82	0.0000412490	**$69.84**	0.0324808170	**$54,994**
Mar-02	110190	18522	40995	4	$19.63	$2.66	0.0000412490	**$93.72**	0.0324808170	**$73,799**
Apr-02	102619	16815	38677	4	$21.25	$2.94	0.0000412490	**$94.64**	0.0324808170	**$74,523**
May-02	109175	20534	45503	4	$22.09	$3.13	0.0000412490	**$105.35**	0.0324808170	**$82,959**
Jun-02	102029	19505	42157	4	$20.75	$2.81	0.0000412490	**$92.21**	0.0324808170	**$72,613**

Stadium Lodgepole Date	BBLS Oil	BBLS Water	MCF Gas	Wells Prod	ND Sweet Price	ND Gas Price	DSU Interest	Revenue	Exp Station Interest	Revenue
Jul-02	106776	23538	44213	4	$22.05	$2.52	0.0000412490	**$101.71**	0.0324808170	**$80,088**
Aug-02	103684	23541	42907	4	$23.25	$2.65	0.0000412490	**$104.13**	0.0324808170	**$81,995**
Sep-02	101437	26365	39808	4	$24.77	$3.13	0.0000412490	**$108.78**	0.0324808170	**$85,656**
Oct-02	103367	26264	42435	4	$23.93	$3.64	0.0000412490	**$108.40**	0.0324808170	**$85,361**
Nov-02	101951	23880	42983	4	$21.42	$3.64	0.0000412490	**$96.53**	0.0324808170	**$76,013**
Dec-02	103164	25388	43383	4	$24.52	$4.42	0.0000412490	**$112.25**	0.0324808170	**$88,390**
Jan-03	110436	31393	46428	4	$27.82	$4.93	0.0000412490	**$136.17**	0.0324808170	**$107,225**
Feb-03	97829	27851	41062	4	$30.68	$5.95	0.0000412490	**$133.88**	0.0324808170	**$105,419**
Mar-03	109201	32068	43106	4	$28.29	$5.47	0.0000412490	**$137.15**	0.0324808170	**$107,997**
Apr-03	103010	31176	41555	4	$23.33	$4.94	0.0000412490	**$107.59**	0.0324808170	**$84,722**
May-03	103455	29136	42626	4	$23.18	$5.48	0.0000412490	**$108.55**	0.0324808170	**$85,475**
Jun-03	100373	29035	43674	4	$25.53	$5.47	0.0000412490	**$115.56**	0.0324808170	**$90,997**
Jul-03	99616	29422	43814	4	$25.82	$4.60	0.0000412490	**$114.41**	0.0324808170	**$90,088**
Aug-03	98808	28293	43594	4	$26.70	$4.53	0.0000412490	**$116.97**	0.0324808170	**$92,106**
Sep-03	94789	28215	41667	4	$23.03	$4.22	0.0000412490	**$97.29**	0.0324808170	**$76,610**
Oct-03	97758	33224	42888	4	$25.08	$4.57	0.0000412490	**$109.21**	0.0324808170	**$85,996**
Nov-03	95842	30582	39987	4	$24.70	$4.37	0.0000412490	**$104.85**	0.0324808170	**$82,561**
Dec-03	101094	32480	40700	4	$26.78	$6.08	0.0000412490	**$121.86**	0.0324808170	**$95,955**
Jan-04	101954	35290	43255	4	$28.59	$5.84	0.0000412490	**$130.67**	0.0324808170	**$102,891**
Feb-04	89107	33193	37793	4	$29.03	$4.93	0.0000412490	**$114.39**	0.0324808170	**$90,072**
Mar-04	93443	44200	40475	4	$31.29	$5.09	0.0000412490	**$129.11**	0.0324808170	**$101,664**
Apr-04	85382	44340	38136	4	$31.16	$5.32	0.0000412490	**$118.12**	0.0324808170	**$93,009**
May-04	88462	51322	40824	4	$34.61	$5.92	0.0000412490	**$136.26**	0.0324808170	**$107,294**
Jun-04	80829	51035	37371	4	$32.67	$5.89	0.0000412490	**$118.00**	0.0324808170	**$92,915**
Jul-04	80951	51910	38359	4	$35.23	$5.62	0.0000412490	**$126.54**	0.0324808170	**$99,639**
Aug-04	78657	54085	31232	4	$39.56	$5.04	0.0000412490	**$134.85**	0.0324808170	**$106,186**
Sep-04	73501	52240	33851	4	$40.09	$4.69	0.0000412490	**$128.09**	0.0324808170	**$100,862**
Oct-04	76143	56740	35905	4	$47.63	$6.97	0.0000412490	**$159.92**	0.0324808170	**$125,928**
Nov-04	70482	54700	32768	4	$42.19	$7.18	0.0000412490	**$132.36**	0.0324808170	**$104,227**
Dec-04	71805	58615	31084	4	$37.89	$6.39	0.0000412490	**$120.42**	0.0324808170	**$94,822**
Jan-05	67899	61900	28195	4	$41.34	$5.76	0.0000412490	**$122.48**	0.0324808170	**$96,447**
Feb-05	60249	57580	27331	4	$42.70	$5.75	0.0000412490	**$112.60**	0.0324808170	**$88,668**
Mar-05	61944	64030	27888	4	$49.25	$6.59	0.0000412490	**$133.42**	0.0324808170	**$105,055**
Apr-05	58004	61665	24880	4	$48.10	$6.75	0.0000412490	**$122.01**	0.0324808170	**$96,077**

Stadium Lodgepole Date	BBLS Oil	BBLS Water	MCF Gas	Wells Prod	ND Sweet Price	ND Gas Price	DSU Interest	Revenue	Exp Station Interest	Revenue
May-05	56871	62787	25731	4	$44.40	$6.48	0.0000412490	**$111.03**	0.0324808170	**$87,427**
Jun-05	53627	61920	25065	4	$51.02	$6.77	0.0000412490	**$119.85**	0.0324808170	**$94,374**
Jul-05	54174	70210	25534	4	$53.49	$7.10	0.0000412490	**$127.00**	0.0324808170	**$100,006**
Aug-05	50884	69035	23411	4	$59.53	$8.95	0.0000412490	**$133.60**	0.0324808170	**$105,204**
Sep-05	47594	69310	22391	4	$59.91	$11.52	0.0000412490	**$128.26**	0.0324808170	**$100,994**
Oct-05	46778	71845	21644	4	$56.86	$12.95	0.0000412490	**$121.27**	0.0324808170	**$95,492**
Nov-05	42413	65340	19076	4	$52.86	$11.21	0.0000412490	**$101.30**	0.0324808170	**$79,766**
Dec-05	43071	61265	18106	4	$53.82	$12.98	0.0000412490	**$105.32**	0.0324808170	**$82,931**
Jan-06	41981	68420	19388	4	$58.44	$8.79	0.0000412490	**$108.22**	0.0324808170	**$85,219**
Feb-06	36993	58395	16724	4	$53.52	$7.08	0.0000412490	**$86.55**	0.0324808170	**$68,149**
Mar-06	39506	65030	17760	4	$54.11	$6.53	0.0000412490	**$92.96**	0.0324808170	**$73,203**
Apr-06	35289	60950	16960	4	$61.61	$6.77	0.0000412490	**$94.41**	0.0324808170	**$74,344**
May-06	37586	70330	18201	4	$62.35	$5.88	0.0000412490	**$101.08**	0.0324808170	**$79,595**
Jun-06	36428	66990	17757	4	$62.53	$5.99	0.0000412490	**$98.34**	0.0324808170	**$77,435**
Jul-06	36117	71400	17263	4	$65.95	$5.79	0.0000412490	**$102.38**	0.0324808170	**$80,617**
Aug-06	34430	68720	16367	4	$64.61	$6.58	0.0000412490	**$96.20**	0.0324808170	**$75,752**
Sep-06	33078	66026	16134	4	$55.79	$4.83	0.0000412490	**$79.34**	0.0324808170	**$62,471**
Oct-06	33897	67493	16058	4	$50.72	$6.16	0.0000412490	**$74.99**	0.0324808170	**$59,051**
Nov-06	31563	65110	14593	4	$50.64	$7.51	0.0000412490	**$70.45**	0.0324808170	**$55,472**