

MICROFILM DIVIDER

OMB/RECORDS MANAGEMENT DIVISION

SFN 2053 (2/85) 5M



ROLL NUMBER

DESCRIPTION

1421

2001 HOUSE AGRICULTURE

HB 1421

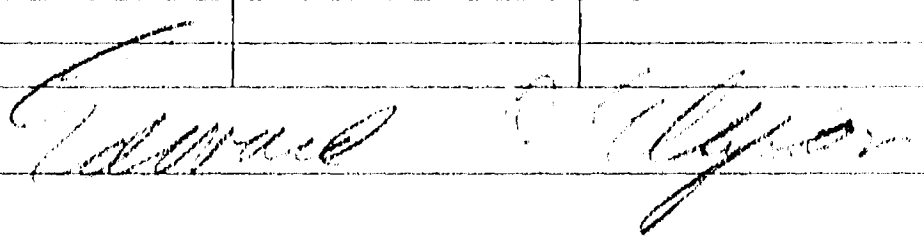
2001 HOUSE STANDING COMMITTEE MINUTES

BILL/RESOLUTION NO. HB 1421 A

House Agriculture Committee

☐ Conference Committee

Hearing Date 2--08--01

Tape Number	Side A	Side B	Meter #
TWO	A		842 TO 5755
Committee Clerk Signature 			

Minutes:

CHAIRMAN NICHOLAS: WE WILL OPEN ON HB 1421

REPRESENTATIVE LEMIEUX: This is a bill that addresses the wheat tax. The questions that we ask are what are we getting out of the wheat commission? I know that the people there work hard. This is a bill that is an attempt to ask some questions, what is happening to our marketers? The frustrations out in ND and around the world in wheat country we see our prices continue to go down and we are spending money to sell a product into a world market and our those money's, are we getting the bang for the buck or should we be spending the money in developing those products rather than selling a product that no seems to want. Maybe we are predicting to much of it or whatever. This bill is an attempt to have the wheat commission come in and visit with this committee and it was a way to do it.

CHAIRMAN NICHOLAS: Representative Lemieux, I would have just one question. Last session as you remember we put a couple mills on and hopefully it with the idea that the commission would do some things on trade which they did. We are having some success. This would perhaps with the \$900,000.00 revenue loss it would impede some of those kinds of efforts. Are you concerned about that?

REPRESENTATIVE LEMIEUX: There is concern from the people back home. There concern is how are our dollars in the wheat commotion being spent? Wheat is not profitable. Yet we see the expenditures and fee increases in what it cost to run the office. Some of the county representatives have indicated that they would like to have some impute into the process. If they don't like what is going on, they put new people in. We are seeing some grassroots movement to address some of those issues. We have to educate the producers as to what we are doing. There is not enough answering to the people back home.

REPRESENTATIVE KEMPENICH: This bill is to put a focus on the state would look a little harder on how we can get closer to the consumer. Last year there were some complaints gin on last year about the quality of the wheat in the NW part of the state and felt that selling \$.60 cents wheat, that is was unfair situation as to what was being charged off and that is what this talks about. We should look at alternatives.

CHAIRMAN NICHOLAS: This would be a \$900 thousand, I would be concerned that with that loss in revenue to be able to preece those efforts. Comment please.

KEMPENICH: It is hard to keep a budget anymore. The point being that a lot of the producers can't keep a budget either. We are doing futuristic thinking. You have to save from the good year for the bad year.

CHAIRMAN NICHOLAS: ANYONE IN SUPPORT OF THIS BILL.

DON NELSON: DAKOTA RESOURCE COUNCIL: WE SPEAK IN FAVOR OF
HB 1421. Please see printed testimony.

REPRESENTATIVE BERG: You make a real strong point. We should reward the
commission for increasing prices and have them pay the consequences with lower prices,
however, I am struggling with that because really what we want is just the opposite of that.
If wheat is \$6.00 per bushel, maybe we don't need the wheat commission. When it is \$2.00 per
bushel we really want them spending more energy doing what they can to increase yields or
price. Please comment:

DON NELSON: I don't see a time when we don't have the wheat commission. Cost of
production of wheat is around \$4.50 a bushel. When prices are low it would give them more
incentive to raise those prices. If I am marketing for you and you are just going to give me a set
amount, I can't work my way up and get a better wage. I testified for the two mills.

REPRESENTATIVE BERG: Talked about the refund with Don. The application for the
refund. Don said that he has never received a refund.

CHAIRMAN NICHOLAS: ANY OPPOSITION?

TOM WILEY: I raise wheat. I am not against the Bill. I just think the wheat commission
should tie cost to price. I think this is a good idea.

REPRESENTATIVE JOHNSON: FURTHER TESTIMONY.

DONALD BIG: We should have a mill base. Farmers we want it based on value.

REPRESENTATIVE JOHNSON: TESTIMONY TO OPPOSE:

ALAN LEE NDWC Producer from Berthold. I am here to testify in opposition to the Bill.

Supply and demand have a lot to do with the price of wheat. Commission supports research. We work on Global issues. We are not responsible for either \$6.00 or \$2.00 wheat. There is a lot of wheat out there. We need to stay out front. The bill would affect the work we do. A big swing in income will affect our efforts our effectiveness and the programs we support. I ask you to leave the Bill alone. We do have an over supply of wheat. We fund research.

REPRESENTATIVE LEMIEUX: How many dollars dose the wheat commission have in reserves right now.

ALAN: Approximately \$900,000.00. Four months operating . Research is about \$270,000.00. this year. Staff raises are what ever the State of ND raises state employees. About 5% every two years.

BRUCE LEWALLEN: USDGA Comment and points. When we are in tough economic times I find it hard to believe that having our bins empty and by asking for this quarter percent of value of wheat, that is going to make a difference. Would this bill have brought up if we had \$6.00 dollar wheat. When we have tough times we want to ban an organization. We try to get people involved. My neighbors will not get involved. There all coming back on the wheat commission when we have bad times. They want to know what we are doing.

BRUCE FRETAG: Vice Chairman of ND grain growers. I see the work the wheat commission does is good. We think it should be left the way it is. We think it would be counter productive. Either way the board work hard. We urge the defeat of the Bill.

BRIAN KARAMER: NDFBUREAU: We stand in opposition to the Bill All of the arguments have been made.

LOWELL BERNTSON: Agriculture Coalition: We oppose the Bill.

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House Agriculture Committee

Bill/Resolution Number HB 1421A

Hearing Date 2--8--01

STEVE STREGE: ND GRAIN DEALERS ASSOCIATION:

We oppose this bill. Primarily to cutting the funding.

CONTINUED ON 1421 B

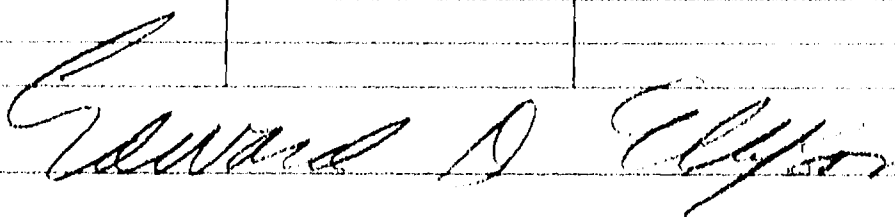
2001 HOUSE STANDING COMMITTEE MINUTES

BILL/RESOLUTION NO. HB 1421 B

House Agriculture Committee

☐ Conference Committee

Hearing Date 2--8--01

Tape Number	Side A	Side B	Meter #
THREE	A		00 TO 657
Committee Clerk Signature 			

Minutes:

HB 1421 CONTINUED:

CHAIRMAN NICHOLAS: ANYONE ELSE WISHING TO TESTIFY IN OPPOSITION TO 1421?

FROELICH: Is it possible that you can simplify this check-off

NEIL: The process as it stands at this point is apply for an application in person.

FROELICH: When we had our joint meeting with the House and Senate. If my memory serves me correctly you took in about 4,000,000.00 dollars the last biennium.

NEIL FISCHER: Yes we took in a little in excess of that amount.

FROELICH: Well Mr. Fischer when I was looking at all the check-off programs, something really stuck out. Maybe you can answer this. A lot of the check-off programs had five to six percent administrative fees. When I got to the wheat check-off, it was 17 percent.

NEIL FISCHER: I have a chart that shows 8 percent,

Page 2

House Agriculture Committee

Bill/Resolution Number HB 1421

Hearing Date 2--8--01

REPRESENTATIVE FROELICH: The sheet that I have says the administrative fees is about 17%. If you have something else, I'd like to take a look at it.

NEIL FISCHER: I have the budget here in front of me. I don't think that I follow the train of thought that here on your 17%.

FROELICH: What I am saying is the other commodity groups have 5 to 6 percent. If yours is double that then I have a problem with that. I'd like to see your figures and I'd be glad to sit down and talk with you about it.

NEIL FISCHER: I'd be glad to sit down and talk with you about it. At the wheat commission we have a highly qualified staff.

VICE CHAIRMAN JOHNSON: Neil, After you raised the wheat tax did you see increase in refunds request.

NEIL FISCHER: We did see an increase in the refund request. About 4 to 5 percent.

The staff that we have here in the ND Wheat Commission is very hands on with these issues.

We do a lot of the work ourselves with the ND WHEAT COMMISSION. We have people that do the basic work overseas because we are qualified. We may have more staff than many other states but it is because the work is taken seriously. Again qualified people.

CHAIRMAN NICHOLAS: Any additional testimony? O.K. WE WILL CLOSE THE

HEARING ON HB 1421 1A:657

2001 HOUSE STANDING COMMITTEE MINUTES

BILL/RESOLUTION NO. HB 1421

House Agriculture Committee

☐ Conference Committee

Hearing Date February 15, 2001

Tape Number	Side A	Side B	Meter #
1	x		823 to 1062
Committee Clerk Signature <i>Edward D. Elger</i>			

Minutes:

Chairman Nicholas: Open your books to HB 1421. This is a bill that would change the way wheat caps are levied in ND. It would be a reduction to the Wheat cap fund of about \$900,000 per year.

Rep. Renner: I would move for a Do Not Pass.

Rep. Johnson: I second.

Chairman Nicholas: Is there any discussion?

Rep. Renner: I feel that we in the intentions I can see the merits of these things but probably also some frustration. To mention the same amount of money whether the price of wheat is \$3 or \$2 for everybody, this would impact our ability to meet programs if your income would fluctuate at least by \$900,000 or more, they would be forced to set aside a large portion of money to manage for those other years. The funds would always be under the scrutiny of the legislature. I think it would be to leave it as it is.

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House Agriculture Committee
Bill/Resolution Number HB 1421
Hearing Date February 15, 2001

Vice Chair Johnson: Along the same lines as long as we have the ability to get a refund on our check-off, I would be in favor of leaving it the way it is.

Chairman Nicholas: Any other questions? We have a motion for a Do Not Pass on HB 1421. The clerk will take the roll.

MOTION FOR A DO NOT PASS

YES, 10 NO, 2

3 ABSENT AND NOT VOTING

FISCAL NOTE

Requested by Legislative Council

02/05/2001

REVISION

Bill/Resolution No.: HB 1421

Amendment to:

1A. State fiscal effect: *Identify the state fiscal effect and the fiscal effect on agency appropriations compared to funding levels and appropriations anticipated under current law.*

	1999-2001 Biennium		2001-2003 Biennium		2003-2005 Biennium	
	General Fund	Other Funds	General Fund	Other Funds	General Fund	Other Funds
Revenues				(\$900,000)		(\$900,000)
Expenditures				(\$900,000)		(\$900,000)
Appropriations						

1B. County, city, and school district fiscal effect: *Identify the fiscal effect on the appropriate political subdivision.*

1999-2001 Biennium			2001-2003 Biennium			2003-2005 Biennium		
Counties	Cities	School Districts	Counties	Cities	School Districts	Counties	Cities	School Districts

2. Narrative: *Identify the aspects of the measure which cause fiscal impact and include any comments relevant to your analysis.*

HB 1421 would change the funding mechanism of the North Dakota Wheat Commission (NDWC) from a flat rate of one cent per bushel (10 mills) assessed at first point of sale to 1/4 of one percent of value per bushel at first point of sale. The major difference in the two funding approaches is the increased variability of revenues and expenditures and the instability that the change would pose on long term research, customer and trade servicing and market development projects. The measure would also require the building and maintenance of a substantial reserve fund to withstand inevitable revenue swings. Historical production and price patterns indicate that annual income generation could range from extremes as low as \$900,000 per year to nearly \$4,000,000 per year.

At average market values for the 1999 and 2000 seasons, revenues would have declined by \$1,276,300 in the 1999-2001 biennium under the proposed HB 1421 funding mechanism. All funds are special funds and are all non-appropriated; the checkoff is the only funding source available to the NDWC. Using the five-year averages of production and values estimated by USDA, the impacts of HB 1421 will be demonstrated below.

3. State fiscal effect detail: *For information shown under state fiscal effect in 1A, please:*

A. Revenues: *Explain the revenue amounts. Provide detail, when appropriate, for each revenue type and fund affected and any amounts included in the executive budget.*

The North Dakota wheat checkoff is the only funding source available to the NDWC. Based on the most recent five-year average production levels and five-year average prices the revenues available would decline by an estimated \$600,000 to \$1,200,000 per biennium. (The estimated revenue and expenditure impact listed under section 1.A. State Fiscal Effect is \$900,000 per biennium or the mid-point of that range.) It is possible with larger acreage or price swings that revenues could be significantly higher or dramatically lower under varying circumstances. Extreme fluctuations resulting from the impacts of HB 1421 and the uncertainty created are a major concern. A larger reserve fund would be required to provide stability and continuity of the funding stream, otherwise the effectiveness of NDWC programs that are inherently long term in nature would suffer.

B. Expenditures: *Explain the expenditure amounts. Provide detail, when appropriate, for each agency, line item, and fund affected and the number of FTE positions affected.*

At a minimum NDWC expenditures would decline by amounts similar to the decline in revenues, since these special funds are the only source of revenue available to the NDWC to fulfill its mission of developing and expanding domestic and international markets for North Dakota wheat producers. It is also reasonable to assume that NDWC expenditures and programs would actually require substantially larger reductions during the period in which the necessary reserve fund is generated. Such an effort would likely have to be accomplished over a period of several years in order to minimize disruption of program efforts and the negative impacts of a significantly reduced funding stream.

C. Appropriations: *Explain the appropriation amounts. Provide detail, when appropriate, of the effect on the biennial appropriation for each agency and fund affected and any amounts included in the executive budget. Indicate the relationship between the amounts shown for expenditures and appropriations.*

Name:	Neal Fisher	Agency:	ND Wheat Commission
Phone Number:	328-5111	Date Prepared:	02/05/2001

FISCAL NOTE
 Requested by Legislative Council
 01/23/2001

Bill/Resolution No.: HB 1421

Amendment to:

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	1999-2001 Biennium		2001-2003 Biennium		2003-2005 Biennium	
	General Fund	Other Funds	General Fund	Other Funds	General Fund	Other Funds
Revenues				\$900,000		\$900,000
Expenditures				\$900,000		\$900,000
Appropriations						

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Counties	Cities	School Districts	Counties	Cities	School Districts	Counties	Cities	School Districts

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by an estimated \$600,000 to \$1,200,000 per biennium. (The estimated revenue and expenditure impact listed under section I.A. State Fiscal Effect is \$900,000 per biennium or the mid-point of that range.) It is possible with larger acreage or price swings that revenues could be significantly higher or dramatically lower under varying circumstances. Extreme fluctuations resulting from the impacts of HB 1421 and the uncertainty created are a major concern. A larger reserve fund would be required to provide stability and continuity of the funding stream, otherwise the effectiveness of NDWC programs that are inherently long term in nature would suffer.

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C. Appropriations: *Explain the appropriation amounts. Provide detail, when appropriate, of the effect on the biennial appropriation for each agency and fund affected and any amounts included in the executive budget. Indicate the relationship between the amounts shown for expenditures and appropriations.*

Name:	Neal Fisher	Agency:	ND Wheat Commission
Phone Number:	328-5111	Date Prepared:	02/01/2001

2-15-01

Date:
Roll Call Vote #:

2001 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. HB 1421

House AGRICULTURE Committee

☐ Subcommittee on _____
or
☐ Conference Committee

Legislative Council Amendment Number _____

Action Taken DO NOT PASS

Motion Made By RENNER Seconded By KINGSBURY

Representatives	Yes	No	Representatives	Yes	No
Eugene Nicholas, Chairman	✓		Rod Froelich		
Dennis E. Johnson - Vice Chairman	✓		Doug Lemieux		✓
Rick Berg	✓		Philip Mueller	✓	
Michael Brandenburg			Kenton Onstad	✓	
Joyce Kingsbury	✓		Sally M. Slandvig		✓
Myron Koppang	✓		Dennis J. Renner	✓	
Edward H. Lloyd			Dwight Wrangham	✓	
Bill Pietsch	✓				

Total (Yes) 10 No 2

Absent 3

Floor Assignment RENNER

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

REPORT OF STANDING COMMITTEE (410)
February 15, 2001 2:28 p.m.

Module No: HR-27-3562
Carrier: Renner
Insert LC: . Title: .

REPORT OF STANDING COMMITTEE

HB 1421: Agriculture Committee (Rep. Nicholas, Chairman) recommends DO NOT PASS
(10 YEAS, 2 NAYS, 3 ABSENT AND NOT VOTING). HB 1421 was placed on the
Eleventh order on the calendar.

2001 TESTIMONY

HB 1421

Don Nelson



"Watchdogs of the Prairie"
Organizing North Dakotans Since 1978

Dakota Resource Council • PO Box 1095 • Dickinson, ND 58602-1095

HB 1421 Testimony

Dakota Resource Council appears today to speak in favor of HB 1421.

The reasons that Dakota Resource Council supports this legislation are simple and straightforward.

The producers automatically pay this levy, which they can get back, only after completing a lengthy application form. What they expect and have been told is that by marketing our wheat or by creating additional demand for our wheat that the checkoff dollar would improve prices for our farmers. Wheat prices are at or near historical lows. Our current checkoff levy for wheat increases the North Dakota Wheat Commission's income when lots of bushels are produced. Basically, we are rewarding the North Dakota Wheat Commission for increasing bushels when we should be rewarding them for increasing price. Under this bill that has been introduced, \$4 wheat would bring the North Dakota Wheat Commission the penny they're getting now, with \$6 wheat it would bring the North Dakota Wheat Commission half a penny more. If the price continues to decline the North Dakota Wheat Commission would have to share in the producer's plight. This bill would tie the North Dakota Wheat Commission's revenues more directly to that of the producer.

Our opponents may say that the fluctuating prices of the wheat markets would create problems for the North Dakota Wheat Commission. But, if the North Dakota Wheat Commission is not able to

plan their budgets in the fluctuating markets of today then why should they expect North Dakota's wheat producers to have that skill? Also, if that is a problem then how is the state of Washington's Wheat Commission, which DOES have a value based checkoff, able to operate as they do? They budget, plan and save money where they can, just like wheat producers in North Dakota and Washington.

The North Dakota Wheat Commission may argue that it is not their job to raise prices for our producers but rather to promote the product. Producers must ask themselves, "What good is it if more people use my product when I am not seeing any profitable returns?" The discrepancy between high market demand and low market prices is a result of the monopolistic concentration in processing and retailing industries, and the availability of cheap imported grains into our markets. The North Dakota Wheat Commission, in order to benefit the producers who support the checkoff, need to fight for our domestic and foreign markets, and most importantly, for a price to cover the cost of production to support our producers.

If the North Dakota Wheat Commission's revenues are directly connected to the fortunes of the producer, that body will by necessity rather than inclination be more responsive to the needs of the producer.

Please vote DO PASS on House Bill 1421. The North Dakota Wheat Commission needs to put the wheat producer first and this bill is the first step along that path.

A Progress Report

on Legislative Initiatives

1995-1997 Biennium • 1997-1999 Biennium • 1999-2001 Biennium

from the NDSU Extension Service
and the North Dakota Agricultural Experiment Station

1) 1999-2001 Crop Protection — \$443,388

One research specialist and one graduate research assistant have been added in the Plant Pathology department and a graduate research assistant has been added to the Plant Sciences department to address continuing disease concerns such as scab and white mold. The help has allowed researchers to expand field and greenhouse testing of experimental cereal crop lines for resistance to scab. The assistant hired in Plant Pathology supports the Extension work of plant pathologist Marcia McMullen and agronomist Mike Peel. The funding has also allowed researchers to expand screening of soybean breeding material for diseases. Additional research focuses on improving chemical applications for disease control. At the Langdon Research Extension Center, hiring of a pathologist has been delayed as the center evaluates and redirects its efforts. The center has purchased equipment and supplies to enhance disease research. An added technician, a part-time student worker and a temporary visiting faculty member in Agricultural and Biosystems Engineering are continuing to work on improved techniques for applying fungicide on barley and wheat heads. Additional research focuses on exploring non-chemical alternatives for controlling scab. Two graduate students in the Entomology department are advancing research on control of sunflower midge. Early work is revealing when the midge is active and where in a field the pest is found. This and other information will lead to recommendations for an integrated system for controlling sunflower midge.

Continued efforts are required to ensure that new plant varieties are resistant to disease threats, and new disease threats continue to emerge that need to be addressed. An example: In 1999, white mold became epidemic when climate and heavy inoculum levels caused losses of more than \$100 million. Research is needed on crop rotation, genetics and fungicide management to manage this disease. Economic and societal concerns dictate that chemical controls be applied as precisely and effectively as possible. Continued research will refine that process and may reveal economical non-chemical methods of disease control. For sunflower midge, continued study is needed to integrate control methods, prediction systems and midge tolerant hybrids.

2) 1999-2001 Grain Quality Education — \$135,464

The grain quality initiative provides education and research support to producers and the industry. Brian Sorenson was recently hired to fill this position. During the first year of the biennium, however, Mike Peel assumed strong leadership for grain quality education work through Extension meetings, publications, a Web Site, and work with the industry.

The need for this initiative continues to be strong. Producers want information on quality features desired by manufacturers, and the industry needs to share desired qualities of the raw products. Although a great deal of work is being done in this area, much more will be accomplished through the filling of this position.

NDSU

North Dakota State University
Fargo, North Dakota 58105

December 2000

3) 1999-2001 Animal Disease Prevention Research — \$175,033

Continuation of funding in this area allowed the hiring of new faculty member, Ana C. Bratanich. In her affiliation with the NDSU Veterinary Diagnostic Laboratory, she supervises diagnostic bacteriology, virology and serology laboratories. These laboratories detect disease agents in samples submitted to the laboratory for diagnosis by producers and veterinarians across the region. The laboratory handles nearly 10,000 cases annually. Bratanich is also establishing a research program that will examine viruses and virus/host interactions at the molecular level. An understanding of these most basic biological functions may lead to new ways to control important animal and human diseases.

New forms of disease continue to emerge while old forms change and adapt to control strategies. With many pathogens becoming resistant to antibiotics and other treatments, concerns about the transmission of diseases from animals to humans are growing. Continuation of these funds is important to support the NDSU Veterinary Diagnostic Laboratory's role in collaborating with other health agencies to look for trends in animal health problems and to spot potential outbreaks of livestock disease.

4) 1999-2001 Foundation Seed Production — \$105,801

NDSU's foundation seed program serves as a pipeline for distributing genetically pure seed of new varieties across the state. Rapid distribution of foundation seed helps the state's producers use the newest varieties to stay ahead of diseases and pests and provide processors with the necessary qualities. The program also generates revenue for additional crop research. Continuation of funds for this effort maintained the staff of technicians and part-time help required to raise and process seed at the Langdon, North Central and Williston Research Extension Centers.

5) 1997-1999/1999-2001 Range Research and Extension — \$437,700

Initiatives in the current and previous biennium support two research specialists, a data processing specialist and six graduate research assistants to support research on grazing systems, range nutrition and annual forages for pasture. Researchers have

found that improving rangeland condition can increase beef production by nearly 10 pounds per acre resulting in more than \$7 per acre in added income. Researchers continue to study the impact of slow-release fertilizers to improve rangeland. Research has focused on understanding and implementing grazing management systems to stimulate grass growth and improve rangeland condition. Early results show improvements in the plant community, a 40 to 96 percent increase in stocking rates, a 65-pound increase in average calf weaning weight and improved per-acre revenue from \$1.99 to \$17.71. A large-scale grazing study has been established on two cooperator ranches that will answer questions about the impact of winter grazing on native rangeland. Extension programs include 12 two- and three-day workshops involving 130 ranches and about 400,000 acres of rangeland. Field demonstrations show growth patterns and nutritional quality of selected cool- and warm-season grasses.

North Dakota has more than 12 million acres of rangeland, 3 million acres of Conservation Reserve Program land, 2.5 million acres of hayland and almost 1 million acres of non-agricultural permanent cover land. As new techniques in grazing management are developed, more efficient grazing programs are studied and public demand to maintain or enhance public grasslands increases, the need for research and Extension efforts will continue.

6) 1999-2001 Molecular Marker — \$260,830

One technician has been hired; equipment has been purchased, installed and calibrated; and the molecular marker lab is ready to begin operation. The lab will allow plant breeders and plant scientists to move rapidly and efficiently develop new high-yield, high-quality disease-resistant varieties for producers. Screening plants at an early stage of development significantly increases the efficiency of plant breeding and related research by eliminating lines with undesirable characteristics early in the selection process.

New equipment will continually need to be purchased as technologies change and older equipment becomes obsolete. Supplies required are expensive and need to be continually replaced. The support the laboratory provides will be key in developing future crop varieties with improved production and processing characteristics.

7) 1999-2001 Corn Breeding — \$172,331

A faculty position in this area was filled by Marcelo Carena in July 1999. He is aggressively seeking outside funding to increase the breadth and depth of the project. To provide further insight into the needs of this industry in the region, the SBARE Corn Granting Committee is serving as an advisory committee to this position. Working relationships have been developed with the North Dakota Corn Growers Association, Minnesota Corn Growers Association and the Tri State Corn Growers Association. In addition to work with traditional field corn, new research includes specialty and white corn. Funds are being solicited for a winter breeding nursery to significantly increase the amount of germplasm produced.

In the past year, a disease nursery has been added in cooperation with Iowa State University. Researchers infested 624 inbred selections with leaf diseases and screened them for resistance. Seventy-five inbred lines from the Corn Belt, Canada, Mexico and Yugoslavia were introduced into the breeding program for testing. The number of plots for experimental line testing was increased by 37 percent to 4,934. Industry participation in the NDSU public testing program increased by 16 percent (number of hybrids and 36 percent (number of companies). Agreements and cooperative testing with private companies will help determine the real potential of NDSU lines in the marketplace.

The production of corn for grain has expanded rapidly in North Dakota, providing corn for livestock feeding and a raw material for value-added industries. Key to that expansion has been the development of corn varieties with good agronomic characteristics for this region and good nutrient and processing characteristics. Continued support for this position will ensure continued progress in developing corn hybrids that are well-adapted to this region and have qualities that processors want.

8) 1999-2001 Coproduct Utilization — \$198,726

Two 3/4-time technicians and four graduate students have helped researchers initiate studies to learn the feeding potential of coproducts from sugar, corn, bakery, potato, wheat and meat industries. In many cases, coproducts of agricultural processing present a waste management challenge for the industry. Research will reduce this challenge for processors. The result will be reduced processing cost which

may translate into improved prices for producers. The research will also provide a wider variety of competitively priced feedstuffs for livestock producers. In one instance, early research with bakery products has reduced the need for a processor to pay for transportation and disposal of a coproduct and provided a low-cost feed for an area producer.

As the agricultural processing sector in the region continues to grow, additional research will be needed to reduce waste management concerns and help livestock producers take advantage of feeding opportunities. At the same time, technology in existing processing industries is changing and as a result the composition and form of coproducts are changing. An example: Molasses has long been a coproduct of sugar processing and a staple in livestock diets. Recent advances have allowed processors to increase the amount of sugar extracted from molasses. New research is being conducted into the feed value of this de-sugared molasses. Study is also needed to adapt coproducts research from other regions to North Dakota production and management systems.

9) 1999-2001 Plant Disease — \$178,747

Two graduate research assistants hired in the Plant Pathology department and two in the Plant Sciences department have speeded progress in the management of wheat head blight and foliar diseases. Germplasm from the spring wheat and durum breeding programs have been assessed for tan spot resistance. Support has also been used to expand the scab screening effort with the goal of producing scab-resistant wheats. Additional efforts have contributed to research and screening of breeders' lines for resistance to foliar diseases that have caused \$50 million to \$70 million in annual losses in each of the past two years. The support has also contributed to studies on the basic biology and management of sclerotinia white mold, a disease that has caused more than \$100 million in losses.

Continued research is needed to address these serious threats and deal with emerging plant diseases. An on-going research effort in genetics and breeding, fungicide application and improved management practices is necessary to reduce significant losses.

12) 1999-2001 Cropping Systems — \$56,000

A research specialist is helping scientists at the Carrington Research Extension Center continue to glean valuable information from a long-term cropping systems study initiated in 1986. In large plots managed using conventional equipment, researchers are evaluating three four-year crop rotations, tree tillage systems and four strategies of nitrogen fertilization. Data have identified various strengths and weaknesses associated with cropping systems strategies. Some combinations of tillage, crops and crop sequences have proven especially difficult to manage due to weed pressure and stand establishment problems. Other systems have reduced outside nitrogen inputs and reduced disease pressures.

Cropping systems research is a long-term investment that is necessary to answer crop production problems that are due to biological factors that build up over time. The biological influences of the system, similar to those experienced by producers, are just now becoming fully expressed and other strategies have yet to be evaluated. Impacts of livestock enterprises on a cropping system and efficient utilization of livestock wastes are other issues to be explored.

13) 1999-2001 Cereal Quality — \$172,327

A graduate research assistant in the Plant Pathology department is helping to develop a system to forecast wheat foliar disease based on a prediction of daily infection period. A graduate researcher in the Plant Sciences department has also been added. Researchers are learning how the biology of wheat and the tan spot fungus interact. That knowledge may lead to new control methods. An Entomology graduate research assistant is helping researchers study ways to control orange wheat blossom midge in durum wheat. Their studies may lead to ways of identifying genetic resistance to the pest in durum and biological controls for wheat midge.

Although progress has been made, losses are estimated at \$50 million to \$70 million annually from foliar diseases. Development of the forecasting system will allow producers to spray fungicides only when necessary, reducing costs and impacts on the environment. For the wheat midge, more work is needed to better understand the interaction between the pest and durum wheat. The efficiency of the screening process needs to be improved, and a greatly expanded number of durum germplasm sources need to be screened for resistance.

14) 1999-2001 Livestock Production Systems — \$186,306

Pabitra Dash, a post doctoral research associate in the Animal and Range Sciences department, is developing computer models for beef, swine and sheep production that can be used by producers, consultants and others to guide decisions on management and investments. Portions of the beef model are in early stages of testing. Other researchers are assembling information that will be used in the subsequent models. A graduate research assistant in the Animal and Range Sciences department is assisting with genetic information that will be used in the model and is interviewing beef producers to gather production and management information. A graduate research assistant in the Agribusiness and Applied Economics department is studying the labor constraints in beef production units. Another graduate research assistant in the Agricultural and Biosystems Engineering department is evaluating methods of waste management in cow/calf operations to give cost impact results for the beef production model.

As production systems change and new technology is developed, the production models will need to be changed so that they can be used to help producers make valid decisions. Also, the more current and detailed information that is used in the models, the more accurate they will be.

16) 1999-2001 Swine Research/Dickinson Research Extension Center — \$66,500

This program supported a research scientist who investigated how alternative crops grown in southwestern North Dakota can be used in swine rations. This work has involved several commodities, including field peas, canola, naked oats, barley, corn and soybean. Various combinations of alternative crop commodities and traditional crop commodities have been combined with the various life cycles of swine to produce recommendations for the swine industry. The work has established feed values for these commodities, leading to feeding recommendations and increased utilization of North Dakota alternative crops. This research also supported educational efforts within pork production in the region.

This work is completed and the program will be terminated at the conclusion of the current project.

As noted in a response from the North Dakota Pork Producers, "The pork industry has undergone some very tough times resulting in fewer pork producers in North Dakota. Thereby making it less viable to continue research at the center along with budget restraints. The NDPPC very much appreciates the efforts that everyone there has made over the past many years to help pork producers do better with their swine operations." The scientist is being transferred to new responsibilities in the development of a focused beef cattle research program within North Dakota.

17) 1999-2001 Research Extension Center Enhancement — \$189,302

This initiative partially meets the need for new equipment and maintenance on existing equipment at NDSU's seven research extension centers. Funds are also being used for upkeep on new facilities constructed at the Carrington, Hettinger, North Central and Williston centers. Added funds also give centers more budget flexibility so they are better able to respond to local research needs.

18) 1999-2001 Insecticide Evaluation — \$97,917

Continued support of specialists in the insecticide evaluation program allows them to work closely with regulatory agencies to obtain minor use approval of both chemical and biological control agents, giving producers broader options for controlling pests in their crops. The program also supports NDSU's grasshopper pest management research. The program is important because many of the crops grown in North Dakota represent small markets for farm chemical manufacturers. Often those manufacturers are reluctant to invest the effort required to have their products labeled for such minor use. Continued development of alternative crops and emergence of new pests will require continued work in this area.

19) 1999-2001 Sheep Research Program/Hettinger Research Extension Center — \$34,200

Researchers are finding that properly managed sheep grazing systems on rangeland can reduce infestations of some weeds like leafy spurge while contributing to overall rangeland health. Continuing this program ensures that new and existing sheep producers will receive new information on sheep and grazing management. That's important as many

producers initiate sheep production enterprises to bolster farm income. Changes in the sheep industry, like the shift from an emphasis on wool production to meat production, consumer demand for sheep products and integration of sheep into economically and environmentally sustainable farming systems, make continuing this program essential.

20) 1999-2001 Irrigated High-Value Crop Production — \$356,183

A new faculty member in the Plant Sciences department, Harlene Hatterman-Valenti, was hired in September 2000. A technician in the department has been transferred to this project. New research will focus on identifying crops that can be grown under irrigation and determining how to efficiently maximize yield quality and profitability. Designing profitable crop rotations that fit into newly developing irrigated areas of the state will also be a priority. A research specialist at the Carrington Research Extension Center helped develop a new research site that has capabilities to apply precise amounts of irrigation water across more than 40 different experimental zones. This 10-acre site will help determine optimum applications of irrigation water and fertilizers to grow high-value crops in North Dakota. Experiments focused on potatoes, dry edible beans, carrots and onions. Additional research included crop cultivar evaluation trials on producer fields, grass seed production and plant disease management studies. In Kidder County, researchers developed a site to study groundwater under irrigated potato production. An on-campus laboratory was improved to conduct extensive measurements of soil hydraulic and physical properties at the off-campus sites. Researchers are also analyzing previously collected data to estimate water use for potatoes in Williams County. They are also developing studies at Oakes on potato planting configurations and water quality. Additional efforts focus on improved irrigation scheduling techniques. A microbiologist hired in the Plant Pathology department is assisting in research on controlling late blight and pink rot, diseases that are particularly important in potatoes grown under irrigation. In 1998, late blight caused about \$78 million in damage to the state's potatoes, a loss that would have been much more severe if not for NDSU's diagnostic laboratory and research program.

An expanding irrigation agriculture demands research-based information on crop and variety selection, fertility practices and irrigation water

management practices. Producers and others are also requesting information on the environmental impacts of irrigation. Continued support is necessary to develop methods for disease control in crops raised under irrigation. As this is a new research effort, additional equipment such as planters, harvesters and sprayers will be needed.

21) 1999-2001 Potato Development — \$203,155

Continued support for this research program ensures a steady supply of new potato lines for breeding while testing those lines for agronomic and processing qualities. This makes sure that timely development of new potato varieties continues and that those released to producers are free from disease, and well suited to growing conditions in this region and to the demands of processors. Unlike commercial potato breeding efforts, NDSU helps provide seed for potatoes that fill key niche markets.

1999-2001 Market Opportunities for Biotechnologically Enhanced Crops in North Dakota — \$100,000

This initiative has allowed researchers to begin assessing end-user markets for emerging genetically modified crops, their potential impact on world commodity trade, and changes in marketing channels to maintain product identity. Support for a graduate research assistant has allowed researchers to develop a model to determine the values of wheat to wheat processors in terms of end-use traits. In addition, wheat end-users have been surveyed to determine key traits they desire. The world wheat simulation model developed at NDSU is being modified to predict trade and price effects of genetically modified wheat. Researchers are also compiling policies and regulations from around the world relating to genetically modified crops. Research determined the logistical costs and uncertainties relating to genetically modified crops. Highest costs were associated with segregation and testing. A conference addressing the economic, policy and production aspects of biotechnologically enhanced crops and livestock products for educators, decision makers, producers and agribusiness is scheduled for the spring of 2001.

Added research is needed to expand the ability of newly-developed models to other genetically modified products available to Northern Plains growers.

Research is also necessary to identify optimal contracting strategies for Northern Plains growers and agribusiness. Researchers also plan to investigate consumer preferences concerning acceptance of foods containing genetically enhanced small grains. Additional study is also necessary to examine the implications of alliances between universities and agribusiness and other end-user institutions in the development of genetically modified varieties.

1999-2001 Dairy Diagnostic Team Program — \$50,000

From June 1999 to May 2000, John Johnson served as statewide coordinator of this program which is part of the NDSU Extension Service. Rachel Retterath has served in that capacity since August. Under their leadership and with help from Extension, diagnostic teams have been formed to help 47 farms improve profitability by decreasing feed costs per hundredweight of milk from an average of \$4.64 to \$4.33. Production of milk has also risen from an average of 15,000 pounds to 17,800 pounds per cow. To date, 26 producers have set goals that, when combined, will produce an additional \$934,000 in gross revenue.

Requests for diagnostic teams far exceed the availability of present program staff. The program needs one facilitator for every 15 farm families in addition to the statewide program coordinator to maintain the program. With requests for assistance from more than 60 additional farms, four facilitators need to be added to meet the demand.

1997-1999/1999-2001 State Soil Conservation Committee and SSCC Leadership and Environmental Law Education and District Grants — \$60,000

In 1997, the budget and management of the North Dakota State Soil Conservation Committee was incorporated into the NDSU Extension Service. Scott Hochhalter transferred into the NDSU Extension Service as soil conservation coordinator and has provided leadership for the committee as well as for the 56 soil conservation districts. As part of the NDSU Extension Service, the N.D. State Soil Conservation Committee allocates and monitors the technician grant program. Under the program, educational training has been given to soil conservation supervisors and clerks in leadership, conservation law, policy development and personnel management.

A special education effort is under way to train supervisors and clerks in technology relating to e-mail, databases and World Wide Web management. The NDSSCC has also developed a Web page.

Conservation continues to be a major concern in North Dakota as it relates to soil, water, trees and other natural resources. The committee plans to aggressively work with conservation leaders to provide continued training and leadership.

1997-1999 Extension Crop Protection — \$270,000

Janet Knodel was hired in January 1998 as the area Extension specialist located at the North Central Research Extension Center in Minot and has provided regional leadership in implementing new crop production systems and their best pest management strategies for insect pests and plant diseases. Her hiring signaled the arrival of entomology and plant pathology expertise in western and north central North Dakota. The initiative has supported research on agronomic and pest management practices like pest monitoring with insect traps, fertility, plant depth or rate, and how these variables affect crop yield. Numerous field crop tours, meetings, field days, scout schools and on-farm visits give producers, crop consultants and others in the industry information about new alternative crops and their best production systems. In addition, the initiative ensures that producers have the latest in new technology to combat pests and enables the discovery and development of new cropping systems and pest management methods. James D. Harbour was hired in November 1997 as an area Extension specialist at the Carrington Research Extension Center. He resigned in March of 1999. Although the position has not been refilled, there is a continuing need for expertise to address crop protection issues in this area of North Dakota that has a highly diverse mix of crops.

1997-1999 Crop Production Systems

■ Weed Control — \$140,000

Brian Jenks was hired in December 1997 as a weed scientist at the North Central Research Extension Center in Minot. His work assisted in a regional effort to label a new herbicide in 1999 and 2000 to control

many economically important weeds in sunflower. He is helping obtain needed weed control tools in other crops such as crambe, canola, flax, pea, lentil, chickpea and dry bean. Studies at the center showed that high populations of Canada thistle were reduced as much as 90 percent with pre-harvest or post-harvest applications of Roundup. Reducing Canada thistle infestations will reduce herbicide costs and losses due to weed competition. The EPA has granted approval of most products requested for weed control in canola over the past two years, removing a major roadblock to expansion of canola production in the United States. North Dakota had 1.2 million acres of canola this year and produces 70 percent of all canola in the United States.

■ Wheat Breeding — \$155,000

A second wheat breeder, Bill Berzonsky, was added to expand breeding efforts in sawfly-resistant hard red spring wheat, specialty wheats and hard white spring wheat and to provide back-up for the existing breeder. Previously, these three types of wheat represented only a very small effort in the existing breeding program. Benefits will be improved resistance to sawfly, a pest that is expected to increase in significance as reduced tillage becomes more widespread. Wheat varieties for niche markets will expand options for wheat farmers in the state. The germplasm base in all these programs has increased significantly. A technician for the project is supported by the N.D. Wheat Commission.

In 1999, "Argent," the only North Dakota released hard white spring wheat and 35 advanced North Dakota lines were evaluated for yield and disease performance at Casselton and Prosper. In February 2000, selections were made from 750 segregating white wheat populations grown in New Zealand to combine high quality, low disease and high yield potential. Two advanced lines exhibited significantly higher yield than "Argent" in two of the four tests and one line exhibited improved disease resistance across all tests. Twelve lines exhibited bread-making characteristics equivalent to or better than "Argent" and one line for potential noodle products has been identified.

■ Barley Research — \$167,500

This initiative supports the double-haploid breeding program that may reduce the length of time needed to develop new varieties by up to three years. The program is used primarily for the *Fusarium* head blight resistance breeding effort. Experimental

barley lines have been developed with resistance to septoria leaf blotch, a foliar disease that has had a significant impact on barley yields in eastern North Dakota. Most funding is directed to one laborer and for vomitoxin testing. As a result of the program, good resistance to scab is on the horizon for barley. In two-rowed varieties, progeny from crosses of more than 2,000 selections were screened for fusarium head blight reaction at Osnabrock in 2000. DON, or vomitoxin, testing helped identify "Conlon" as a cultivar that accumulates relatively low levels of the toxin in harvested grain.

Continued support is necessary to maintain the plant breeder's ability to collect *Fusarium* head blight in the field and greenhouse and test for vomitoxin on prospective new varieties. There is a continued need for improved varieties with resistance to scab and other diseases.

■ Durum Wheat Quality — \$125,000

A new cereal scientist, Frank Manthey, was hired for efforts in durum quality improvement. With the help of a half-time post-doctoral research associate and two graduate students, he is addressing the concerns of producers, millers, pasta processors and consumers. He evaluated about 45 advanced lines (315 samples) for grain, milling, semolina and pasta quality. He also evaluated about 650 early generation nursery lines per year for grain and semolina quality. A primary focus is to evaluate the quality of durum lines being developed by the NDSU durum breeder. Quality demands continue to change, and research is developing new tests that will allow for screening early breeding generations for strong gluten, color stability and reduced stickiness of pasta dough and cooked pasta. Additional research focuses on how agronomic practices affect processing qualities of durum wheat. The effects of herbicide treatments, sprouted kernels and rainfall just before harvest are being studied. Manthey and his team are also examining adjustments that can be made at the mill and the pasta processor that can improve product quality. Finally, he is studying pasta as a carrier for healthful ingredients such as flaxseed. North Dakota produces 70 to 75 percent of the durum wheat grown in the United States, and NDSU's Durum Wheat Quality and Pasta Processing Laboratory is the only laboratory of its kind located at a university.

1997-1999 Value-Added Research and Extension

■ High-Value Crops — \$189,000

With the help of a new Extension specialist, a part-time research technician and part-time summer labor, research and demonstration projects were initiated on potato production for the french fry industry to enable potential irrigators and potato growers to economically raise this crop. Producers currently contract with two processors and grow exclusive varieties for a third. Two \$1 million potato storage facilities are being constructed, and the development of a processing plant is being considered. A pilot project is linking the region's wheat producers as preferred suppliers with food producers. In 1999, 1,500 acres of identity-preserved wheat were grown under irrigation in the project that aims to target stringent quality specifications for lucrative premiums. There is a potential for 50,000 acres or more of identity-preserved irrigated and dryland wheat to be produced in the region for this market.

Additional value-added industries being investigated include dairies, alfalfa processing, livestock feeding and malting barley.

As a result of the Irrigation Initiative the Williston Research Extension Center conducted research and demonstration projects on potatoes for the french fry industry, on irrigated malting barley, on identity preserved wheat and on value added safflower and durum in partnership with the Montana State University Eastern Agricultural Research Center in Sidney, Mont. The center has hired a half time research technician and part time summer labor for the work. The initiative also provided equipment for studying high value crops under field conditions. The economic impact of the Irrigation Initiative has begun with added potato acreage, new potato storage facilities and possibly a potato french fry processing plant in the near future. Irrigated malt barley production has increased from none to 500,000 bushels in 1999 to an estimated 2 million bushels in 2000. An identity preserved irrigated wheat project has the potential to enable MonDak wheat producers to become preferred suppliers of identity preserved wheat products to food processors. The initiative has resulted in newly developed and installed sprinkler irrigation systems by area farmers.

Projects need to continue to attract and develop the agricultural processing sector in the MonDak region. Four 40-acre irrigation systems are needed to establish irrigated cropping systems research in Nesson Valley and a research technician is needed to assist in the new irrigated cropping systems research.

■ Bison — \$100,000

The addition of a half-time technician and some part-time assistance at the Carrington Research Extension Center has allowed work to progress on feeding methods, efficiency and carcass value. Portions of the center's bison research facility opened less than a year ago and has only generated some observations to date with no studies having reached completion. Data from the bison research effort may be having an impact as more bison are being fed with higher energy diets resulting in lower cost of gain. Considering bison is a \$70 million industry in the state, modest improvements could have significant effects on the feeding of bison bulls. Bison research efforts have been conducted during the construction phase of the facilities through use of producer based animals and facilities.

The feedlot portion of the facility developed with initiative funding is just nearing completion. A continuation of the program is necessary if any data is to be generated on bison nutrition. Producers have no biological data on bison to base management decisions so this project is vitally important to North Dakota bison producers as well as those throughout the United States and Canada. This research facility is the focal point of an expanded bison research and education program that will make the best use of information generated from this project.

● 1995-1997 Potato Research — \$173,000

The replacement of the breeder and the increased infusion of operating funds resulted in a dramatic increase in the number of potato lines evaluated by the breeding program. In 1994, about 60,000 lines were evaluated. Last year, 118,000 North Dakota lines, plus 60,000 seedlings from Texas, Oregon, Michigan, Minnesota and Idaho were tested here. This increased evaluation effort will allow for the more rapid development of red, russet and white potato varieties for North Dakota seedsmen and potato producers. For instance, a current top prospect for future research has insect resistance, high yield capacity, and enhanced starch content along with the superior chip quality for which North Dakota potatoes are famous. High vigor is also common in hybrids developed for late blight resistance. Increased operating and equipment funds are necessary to maintain an efficient and productive potato research program.

● 1995-1997 Swine Extension and Research

Scott Carter was hired as swine specialist in December 1995 with funding from this initiative. He established swine nutrition research at NDSU relating to non-conventional grain sources. He also established an outreach program for bringing swine production technology and techniques to North Dakota producers. A technician was hired in December 1996 to collect and analyze swine data for faculty members. Carter left in July 1997, and Thomas Socha was hired in October 1998. He has worked closely with the North Dakota Pork Producers Association and the Cloverdale Growers Alliance Cooperative to improve and expand pork production in the state. He is evaluating terminal sire lines for muscle quality and is determining the muscle quality of pigs sold to Cloverdale Foods to establish minimum standards of quality that can be implemented by Cloverdale and other packers.

● 1995-1997 Cereal Science — \$367,000

One technician was hired to assist the hard red spring wheat breeder and a research specialist in plant pathology was added for screening wheat and durum for scab resistance. These positions and increased operating funds have allowed scientists in hard red spring wheat, barley and durum wheat to significantly increase their research efforts. They have increased testing of exotic lines from Brazil, Morocco, the Middle East, China and other locations. A screening nursery at Prosper, N.D., was established where lines can be subjected to heavy scab infection. In 1999, 3,000 durum lines were tested there. Researchers use 7,800 hill plots to evaluate advanced lines, segregating populations and introduced germplasm of hard red spring wheat there. This nursery creates a scab epidemic by inoculation and periodic misting. Funds have also allowed testing of durum wheat and barley lines in China during the off-season in an area where scab is an annual naturally occurring epidemic. In 1999, researchers evaluated 2,000 durum accessions from the world collection and 300 lines from the durum wheat breeding project there. More than 500 barley lines will be tested there this season. An irrigated nursery for barley was established near Osnabrock. More than 10,000 lines were screened for scab resistance there in 2000. A shuttle breeding strategy is being used in the barley breeding program. Resistant barley lines are identified in the Osnabrock nursery and then sent to China for rescreening. Resistant lines are then brought back to North Dakota for further testing. Forecasting models for

wheat foliar diseases have been developed and deployed for producer use. The wheat pest survey conducted since 1995 provides information about the crop condition, diseases and insects as well as yield and quality damage.

The threat of Fusarium Head Blight and foliar diseases continues with devastating losses occurring in many locations. Continued efforts in the development of resistance, spray techniques and forecasting is essential. In barley, scab-tolerant lines have been identified, but continued research is needed to develop agronomically acceptable varieties.

This initiative also supports five graduate students conducting insect research. With support from this initiative, improved aphid sampling plans were developed to assist spring wheat growers and crop consultants. Sampling guidelines were developed for white grubs in continuous cropping systems that guide insecticide application decisions. Researchers are studying European corn borers to determine how best to predict population levels and management.

Unlike the Corn Belt where two generations of European corn borers is the norm, some European corn borers have only a single generation in North Dakota while others have two, complicating management decisions. Researchers are developing management systems for controlling grasshoppers in legume cover crops used in annual crop-fallow rotations.

As production practices change and new technologies become available and as new insects invade, insect challenges to quality cereal production remain. BT corn provides a new opportunity, but its suitability and ecological implications to the region need to be investigated. The orange wheat blossom midge remains a problem. And the recent introduction of the cereal leaf beetle to western North Dakota show that we face the threat of new invasive pests.

NORTH DAKOTA WHEAT COMMISSION
Bismarck, North Dakota

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Also Included:	
"New Realities for N.D. Wheat Producers" 1999-00 Annual Report	
"Taking on the World" 1998-99 Annual Report	



STATE OF NORTH DAKOTA
OFFICE OF THE STATE AUDITOR
STATE CAPITOL
600 E. BOULEVARD AVE. DEPT. 117
BISMARCK, ND 58505

INDEPENDENT AUDITOR'S REPORT

Honorable Edward T. Schafer, Governor

Members of the Legislative Assembly

Mr. Neal Fisher, Administrator
ND Wheat Commission

We have audited the special-purpose statement of revenues and expenditures of the North Dakota Wheat Commission for the two-year period ended June 30, 2000. This financial statement is the responsibility of the management of the North Dakota Wheat Commission. Our responsibility is to express an opinion on this financial statement based on our audit.

We conducted our audit in accordance with generally accepted auditing standards, and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

The accompanying special-purpose financial statement was prepared to provide state decision-makers, including the Senate and House Agriculture Committees, with a comprehensive overview of the North Dakota Wheat Commission's operations. The revenues and expenditures are reported as discussed in the first Note to the Financial Statement. This special-purpose financial statement is not intended to be a presentation in conformity with generally accepted accounting principles.

In our opinion, the special-purpose financial statement referred to above presents fairly, in all material respects, the revenues and expenditures of the North Dakota Wheat Commission for the two-year period ended June 30, 2000, in conformity with the basis of accounting described in the first Note to the Financial Statement.

Our audit was made for the purpose of forming an opinion on the special-purpose financial statement, including the notes thereto, taken as a whole. Other information included with this report is presented for purposes of additional analysis and is not a required part of the special-purpose financial statement of the North Dakota Wheat Commission. This information has not been subjected to the auditing procedures applied in the audit of the special-purpose financial statement and accordingly, we express no opinion on it.

In accordance with *Government Auditing Standards*, we have also issued our report dated August 17, 2000 on our consideration of the North Dakota Wheat Commission's internal control over financial reporting and our tests of its compliance with certain provisions of laws, regulations, contracts, and grants.

This report is intended solely for the information of the Governor, Senate and House Agriculture Committees and management of the North Dakota Wheat Commission and should not be used for any other purpose. However, this report is a matter of public record and its distribution is not limited.

A handwritten signature in cursive script, appearing to read "R. R. Peterson".

Robert R. Peterson
State Auditor

August 17, 2000

STATEMENT OF REVENUES AND EXPENDITURES

For the Two Year Period Ended June 30, 2000

REVENUES:

Wheat Tax Assessments (Net of Refunds of \$241,663)	\$ 4,778,880
Sale of Publications	7,707
Interest on Investments	52,177
Total Revenues	<u>\$ 4,838,764</u>

EXPENDITURES:

Salaries and Benefits	\$ 784,331
Operating	2,895,529
Equipment	3,839
Grants	531,402
Total Expenditures	<u>\$ 4,215,101</u>
Revenues Over Expenditures	<u>\$ 623,663</u>

NOTES TO THE FINANCIAL STATEMENT
For the Two Year Period Ended June 30, 2000

Note 1 - Summary of Significant Accounting Policies

The responsibility for this financial statement, the internal control structure and compliance with laws and regulations belongs to the management of the North Dakota Wheat Commission. A summary of the significant accounting policies follows:

A. Reporting Entity

For financial reporting purposes, the North Dakota Wheat Commission includes all funds, programs, and activities over which it is financially accountable. The North Dakota Wheat Commission does not have any component units as defined by the Government Accounting Standards Board. The North Dakota Wheat Commission is part of the State of North Dakota as a reporting entity.

The North Dakota Wheat Commission was formed under North Dakota Century Code (N.D.C.C.) Chapter 4-28, to foster and promote programs aimed at increasing the sale, utilization and development of wheat, both at home and abroad. The Commission disseminates reliable information on the value of wheat and wheat products for any purpose for which they are valuable and useful to both processor and consumer. The Commission is to search for and promote new uses of wheat and wheat products, to seek improvement of the export quality of wheat, and to contract and cooperate with any person, firm, corporation or association or with any local, state, or federal department or agency for executing or carrying on a program or programs of research, education and publicity. The Commission is responsible for and is funded under a continuing appropriation.

B. Reporting Structure

The financial statements include all activities of the reporting entity as defined above. These activities are funded from fund 228, the Wheat Commission fund. The statement of revenues and expenditures is a combined statement to give the users an overview of the agency's activity.

C. Basis of Accounting

Revenues and expenditures on the statement of revenues and expenditures are principally reported on the modified accrual basis of accounting, which is generally accepted accounting principles (GAAP) for governmental fund types.

Under the modified accrual basis of accounting revenues are recognized when susceptible to accrual (i.e., measurable and available). Measurable means the amount can be determined, available means due and collectible within the current period or soon enough thereafter to be used to pay liabilities of the current period. Revenues are considered available if they are collected within 30 days after fiscal year end. Expenditures are recorded when goods or services are received. Exceptions include: principle and interest expenditures which are recorded when due; compensated absences which are recorded when paid; and, claims and judgments.

There can be differences between revenues and expenditures reported on the state's accounting system and those reported by the Office of Management and Budget in the state's CAFR in accordance with GAAP. Examples of these differences include:

1. Loan receipts and loan disbursements are accounted for as revenues and expenditures on the state's accounting system (and at times are budgeted as expenditures).
2. Revenue reported on the statement of revenues and expenditures can differ from GAAP revenues because certain receivables are accrued for CAAP purposes while they were not recorded as revenue on the state's accounting system when they are received after the apply back period.
3. Certain transfers are sometimes recorded as revenues and expenditures on the state's accounting system.
4. Expenditures recorded on the state's accounting system do not report expenditures relating to capital lease and other financing arrangements.

D. Other GAAP Reporting Differences

GAAP financial statements would include a balance sheet by fund type and account group. Revenues and expenditures would also be reported by fund type. GAAP financial statements would also provide more complete note disclosures. This type of information is available in the state's comprehensive annual financial report and the Office of Management and Budget's combining statements by department.

For this report, revenues and expenditures are reported on a departmental basis to give an overview of the North Dakota Wheat Commission's operations. All revenues and expenditures are included.

Note 2 – Other Significant Items

The North Dakota Wheat Commission has cash and investment reserves of \$940,761. This amount represents approximately 5 months of expenditures.

REPORT TO THE 2001 NORTH DAKOTA LEGISLATIVE ASSEMBLY SENATE AND HOUSE AGRICULTURE COMMITTEES

BACKGROUND

The passage of Public Law 480 in 1954 was the impetus for the creation of many commodity checkoff programs including the North Dakota Wheat Commission. The program authorized federal money for overseas market development if matched in part with producer dollars. Noting that Pacific Northwest states were using the program to promote white wheat, farmers in North Dakota decided that they, too, needed a checkoff program to promote durum and hard red spring wheat. Legislative action established the North Dakota Wheat Commission in 1959. Its mission? To stabilize and improve the agricultural economy of the state by promoting, aiding and developing the orderly marketing and processing of North Dakota wheat.

Wheat producers finance the effort entirely themselves with a per bushel checkoff assessed at time of sale. The checkoff initially was set at 2/10 of a cent per bushel and was last increased in 1999 to a full penny per bushel. This brought North Dakota's assessment to a level identical to that of most of the 18 states that have wheat checkoff programs. To leverage funds contributed by North Dakota wheat producers, the Commission partners with these states regionally and nationally to expand markets for U.S. wheat.

ORGANIZATION

Wheat producers direct the North Dakota Wheat Commission through a grassroots approach. Producers meet at the county level to elect representatives, who in turn elect six district commissioners. The governor appoints a seventh commissioner from a list of nominees submitted by major farm and grower organizations. These seven producers make up the board of commissioners. They develop policy and programs, oversee their implementation and approve budget expenditures. Seven full-time, permanent employees administer wheat checkoff programs and activities.

SUMMARY OF ACTIVITIES BY PROGRAM FOR THE 1999-01 BIENNium

Over the years, the Commission has helped build a strong reputation worldwide for U.S. hard red spring and durum wheat. With this foundation to stand on, despite an extended period of low prices in recent years, North Dakota wheat producers have been receiving a significant premium. The average North Dakota price of \$3.05 in 1999-00 probably wouldn't have paid the bills without government assistance, but it is definitely better than the average U.S. farm price of \$2.55 per bushel. Looking at bread wheat specifically, the North Dakota average farm price for hard red spring wheat was 40 to 50 cents per bushel higher than the average farm price for Kansas wheat during the 1998 and 1999 marketing years.

This price spread was partially due to the comparatively larger supplies of winter wheat during this period, but having a core customer base for wheat from this region provided the extra support needed to prevent even more devastating price declines. Developing a customer base that in the last five years has spanned 95 countries in the case of U.S. hard red spring wheat and 33 countries for U.S. durum didn't just happen. The Commission's efforts in the areas of export market development, trade policy and issues, research, domestic promotion and public information all played a role.

EXPORT MARKET DEVELOPMENT

Maintaining and increasing the export market for U.S. wheat is essential since supplies not used in the U.S. domestic market or shipped overseas sit in storage bins and weigh on prices. This is why the North Dakota Wheat Commission continues to invest the majority of its financial and human resources in export market development for North Dakota wheat.

In carrying out its export promotion program, the Commission works cooperatively with U.S. Wheat Associates (USW). Producer investments in export market development through USW are matched on a 2-1 basis with funds from the Foreign Market Development and Market Promotion programs of the USDA Foreign Agricultural Service and third-party cooperators. With offices in 15 overseas locations, USW tailors its marketing activities to suit local cultures and individual customer needs.

As the largest producer of hard red spring and durum wheat in the nation, the Commission complements the in-country expertise of USW personnel with its own marketing staff and consultants uniquely qualified to promote these specialty wheat classes. Commission support of and work with the NDSU Cereal Science Department and Northern Crops Institute, both in Fargo, and the Wheat Marketing Center, Portland, round out the effort to provide customers with the information and services they need to successfully buy and process spring wheat and durum.

Export market development in recent years, though not without its challenges, has yielded many rewards. Here are just some of the examples:

- Hildebrandmülen, a milling company in **Germany**, made its first purchases of U.S. durum wheat in 1999 after its purchasing manager visited North Dakota's northwest durum production region as part of a USW-sponsored trade team.
- The Moreto Flour Mill in Barcelona, **Spain**, has been purchasing more and more U.S. hard red spring wheat, using it at a rate of 25 percent in its milling grist, since its managing director visited eastern North Dakota in 1999 as part of an NDWC-hosted trade team. Sales to customers in Spain now range from 8 to 10 million bushels annually, up from only 2 million bushels five years ago.
- Samlip Foods Co. and Shany Co., the largest and second largest wholesale baking companies in **South Korea**, have been using increasing amounts of flour made from U.S. hard red spring wheat since participating in a demonstration and commercials tests that compared the performance of U.S. HRS, U.S. hard red winter wheat and Canadian western spring wheat in making pan bread. The activities were jointly carried out by USW, the Commission and the Northern Crops Institute. Market development efforts like this one and others are partly responsible for South Korea being the fifth largest export destination for U.S. HRS.
- **China's** National Cereals, Oils and Foodstuffs Corporation (COFCO) purchased 1.8 million bushels of U.S. wheat, including 367,000 bushels of hard red spring wheat, early in the year 2000. The purchase was significant because it resulted in one of the few shipments of wheat to China from a U.S. Pacific Northwest port since a trade dispute began over TCK smut nearly 30 years prior. The trial spring wheat shipment has since been sold to some of the mills in China and the response has been favorable. Sales to China to date in the 2000-01 marketing year stand at 2.2 million bushels, nearly double the level for the same period a year ago.
- **Uzbekistan** imported 1.4 million bushels of U.S. durum wheat since the beginning of the 2000-01 marketing year. The sale was made possible after USW, the Commission and the state's congressional delegation worked jointly to gain USDA approval to allocate an existing low-interest, long-term U.S. government loan to Uzbekistan for the purchase of durum.

- **Taiwan's** Flour Mills Association pledged to buy an increasing amount of U.S. wheat, much of which is likely to continue to be hard red spring, in 2000-2001 during a May 2000 ceremony with the Commission and Gov. Ed Schafer at the state capitol. Taiwan is already the third largest export destination for U.S. HRS.
- **Algeria** purchased double the amount of U.S. durum in the 1999-00 marketing year as it did the year before, thanks in part to the lifting of U.S. government travel restrictions there and a renewed level of trade servicing by USW and the Commission. The culmination of efforts came in May when USW brought a delegation from Algeria's government buying agency to North Dakota to gather updated information on the quality of U.S. northern grown durum.
- A **Singapore** bakery that provides buns to a well-known international fast food business now knows that it needs to use flour milled from U.S. hard red spring wheat to make a satisfactory product. After having trouble meeting the specifications of the fast food chain, the bakery called a Singapore-based USW baking consultant who suggested using flour made from U.S. spring wheat. A series of baking trials demonstrated that the buns made with good quality flour from U.S. wheat were far superior in height to those made from the Canadian spring wheat flour previously used.
- The **Tablex Group**, a large milling group, in **Mexico** is taking advantage of the more abundant 2000 U.S. hard red spring wheat crop by purchasing nearly 1 million bushels since June. The group normally uses hard red winter wheat, but has been pleased with the performance of the lower protein (12.5 to 13.0 percent) HRS it has been receiving. Representatives of Tablex visited North Dakota in 1994 after contacting USW and the Commission to arrange a self-sponsored educational tour of the region's production, marketing and milling infrastructure.

Looking forward. USDA projections for the 2000-01 marketing year show a 4 percent increase in demand for hard red spring wheat and a 14 percent increase for durum. The projected improvement in spring wheat use is primarily due to strong domestic mill demand for higher protein content and increases in Europe, Africa and Central America. For example, export sales to Italy are currently up 50 percent compared to sales for this same period a year ago and United Kingdom purchases have tripled. Sales are 15 percent higher in Africa and 25 percent higher in Central America. Efforts to educate customers on using contract specifications to get the quality of wheat they want and on how to buy U.S. wheat absent the Export Enhancement Program have helped U.S. spring wheat producers regain some of the market share lost in the mid-1990s.

In Asia, demand has been steady with exception of the Philippines, where sales are down 45 percent (10 million bushels) as a result of Canadian Wheat Board targeting in the last two years. Given the Philippine situation and similar targeting of key markets in other global regions, the Section 301 case (described more fully in the next section) against anti-competitive CWB trade practices in third-country markets is an essential tool in the North Dakota Wheat Commission's endeavors to preserve and build export market share for the state's wheat producers.

Markets opened through sanctions reform and removal of trade barriers need attention. Other plans for the future include launching and increasing the customer service presence for U.S. hard red spring wheat and durum in markets that were previously off-limits or restricted due to U.S. trade sanctions or superficial trade barriers. Market potential of varying degrees exists in Cuba, Libya, Sudan, Iran and North Korea. Customers in some of these markets have grown weary of the price gouging they've received absent U.S. competition and are eager for the chance to buy U.S. wheat. Others will require considerable courting.

In China, now that the TCK issue is resolved and U.S. spring wheat can be shipped via U.S. Pacific Northwest ports, the Commission will be sending an end-use quality expert to meet with local mills. The objective is to help increase awareness of the performance of U.S. hard red spring wheat in comparison to the Canadian spring wheat these mills have been using.

Advent of biotechnology presents opportunities and problems. Growers are being challenged with balancing the production practices that will work on their farms with what customers will accept. The European Union and many Asian countries will not accept products derived from biotechnology. With these concerns in mind, the Commission helped shape a USW biotechnology position statement in 2000. The policy assures customers that U.S. farmers are not growing biotech-derived wheat and that, before they do, USW will work with all industry segments to develop a system that enables customers to buy the wheat they want. Meanwhile, the Commission has stressed to Monsanto that the company not jeopardize exports by releasing *Roundup Ready* wheat without customer acceptance. The Commission is also in close contact with North Dakota State University. Commissioners believe it is in wheat producers' best interest to have the state's land grant university involved in developing biotech-derived varieties. Advancing the science while keeping customers happy is a balancing act. The dilemma demonstrates why U.S. wheat producers need to do a better job of understanding and explaining to customers and consumers the benefits of this technology.

Other projects on the books for 2001 include:

- Sending NDSU's newest spring wheat breeder on a USW mission to Latin America to gather information on the end-use quality criteria of millers and bakeries there. By assuring that future variety releases meet customer needs, U.S. spring wheat producers should be better positioned to contend with Canadian competition in this important market.
- Participating in the USW South Asian Buyers Conference, where the Commission will underwrite the cost of have a high profile marketing expert highlight the features of the U.S. marketing system that allow customers to contract for specific quality traits.
- Helping Mexican wheat buyers determine the most efficient means of importing U.S. spring wheat by analyzing the advantages or disadvantages of shipping via rail versus ocean freight. The Commission is also going to send an end-use quality expert to meet with two key milling groups in Mexico.

TRADE POLICY AND ISSUES

Although most market development activities are conducted overseas, the process actually begins in the United States with support for a freer and fairer global market for U.S. wheat. This includes eliminating export subsidies, ending trade distorting practices of government monopoly marketing boards, lifting trade sanctions, resolving phytosanitary issues, tearing down superficial trade barriers and otherwise improving market access for our wheat producers.

To accomplish these goals, the North Dakota Wheat Commission works cooperatively with U.S. Wheat Associates, the Wheat Export Trade Education Committee, the National Association of Wheat Growers and state grower and farm organizations. Together, we educate lawmakers and government leaders about trade policies and issues that affect the competitiveness of American wheat producers in domestic and export markets.

Considerable underbrush remains to be cleared, but in the 1999-01 biennium U.S. wheat producers working together have achieved many trade policy advances:

- **Widespread support puts Canada's defacto export subsidies under fire.** The policies and practices of the Canadian Wheat Board and the government of Canada that influence wheat exports to the United States and third country markets will be subject to a thorough investigation in 2001 as a result of a Section 301 petition filed by the North Dakota Wheat Commission.

Documented case studies in the petition from the Philippines, Venezuela and other markets indicate that the CWB relies on an array of anti-competitive practices, such as price discounts, rebates and bonus deliveries, to capture market share.

The Commission is ultimately requesting short-term relief from CWB trade distortions through quantitative restrictions on imports of Canadian spring wheat and durum. The Commission will also be seeking a long-term solution that addresses the Canadian government's monopoly over the procurement and sale of Canadian wheat.

The Commission's Section 301 complaint has gained overwhelming support from the U.S. wheat industry, farm organizations and a bi-partisan group of 39 members of Congress. The action is viewed as leverage for the United States that could bring Canada to the negotiating table in the World Trade Organization. Current WTO rules are loose with regards to state trading enterprises. The Section 301 investigation could provide the push needed for progress in this area. It increases the possibility of success in the new round of negotiations and a new round offers a way to broaden any disciplines that can be achieved through the 301.

Legal counsel for the Commission's Section 301 action is Charles Hunnicutt, the same attorney who successfully led the 1994 Section 22 investigation into imports from Canada. In addition to the considerable time staff members spend researching the issue, assistance with the 301 case is also coming from USW; WETEC; Karen Fegley Reynes, consultant and former director of WETEC; the Kantor team (more information provided below) and consulting economists.

- **U.S. wheat industry successful in getting its priorities high on the U.S. agenda for the WTO agriculture talks.** The agriculture committee of the World Trade Organization kicked off a new round of agriculture negotiations in March of 2000. The United States has since submitted a proposal calling for the elimination of export subsidies and tariff rate disparities, but it also makes strong recommendations to end the unfair practices of exporting state trading enterprises.

To get this far and to ensure that U.S. wheat producer needs are addressed in the actual WTO talks, a coalition of states, including the North Dakota Wheat Commission, has retained former U.S. Trade Representative Mickey Kantor, former USTR Special Trade Negotiator for Agriculture Peter Schar, and former congressional staff adviser Michael Punke, all of the legal firm Mayer, Brown and Platt, Washington, D.C. The team has been instrumental in the process so far and, more specifically, in garnering support for the Commission's effort to address the anti-competitive trade practices of the Canadian Wheat Board.

- **Resolution of TCK dispute and PNTR for China means better access to 1.2 billion consumers.** The U.S. Congress and President Clinton approved the bill in 2000 to permanently normalize trade relations with China when the populous nation joins the World Trade Organization. The North Dakota Wheat Commission actively campaigned on Capitol Hill to pass PNTR. The law enables the United States to benefit from China's WTO accession agreement, which will allow 7.3 million metric tons of annual wheat imports at a 1 percent tariff. The quota will increase to 9.3 million metric tons by 2004.

With PNTR and the lifting of the Chinese ban on imports from U.S. Pacific Northwest ports, spring wheat can now make its way to China for \$6 to \$10 per ton less than via a Gulf origination.

- **Trade sanctions eased in 2000, still room to improve.** Hearing the voices of wheat producers and others who have long argued that unilateral trade sanctions are ineffective, Congress further eased restrictions with Cuba, Iran, Libya, Sudan and North Korea in 2000 and made it more difficult for future presidents to impose food and medicine sanctions. The bill's intent is encouraging, however, limits on travel, financing, and export programs and a continuing ban on Cuban exports to the United States are stifling sales potential. The Commission will work with national wheat organizations to encourage Congress to revisit the issue and fully end the outdated embargo on Cuba.
- **U.S. regaining access to what may be the world's largest wheat import market.** Thanks to the perseverance of U.S. Wheat Associates in working with USDA, Brazil lifted its ban on hard red spring and soft red winter wheat imports from the United States in November. Restrictions on hard red winter wheat shipments originating from Gulf ports had been previously eased. Brazil imposed the ban in 1996, citing concern with TCK smut disease. USW is still working to gain access for white wheat and durum and for shipments from other U.S. ports.

Brazil is forecast to be the world's largest wheat importer in 2000-01. With the import restriction gone, U.S. HRS might be able to overcome duty and location hurdles to the Brazilian market. Brazilian imports of U.S. wheat are subject to a 13 percent duty, while nearby Argentina, as a party to the MERCOSUR trade agreement, ships wheat to Brazil duty-free. The best opportunity for American wheat producers is between May and September, after Argentina's supplies dwindle and before Brazil's harvest begins.

- **Not participating in regional trade agreements has a cost.** There are 119 regional trade agreements registered with the World Trade Organization, over three quarters of them entered into force in the last six years. The role of these trade agreements should be to remove distortions in trade between member countries. However, there is some concern that these agreements are being used to provide improved access for the goods of member countries, while creating new barriers to goods from non-member countries. The MERCOSUR agreement has created a tremendous advantage for Argentine grain sales. Demand that used to be fulfilled by U.S. producers is now going Argentina's way because high duties are being imposed on imports from non-member countries. So while American farmers have often felt that they haven't gained as much as they should have in trade agreements, the flip side is that there are also costs associated with not participating in agreements.

An agreement to create the Free Trade Area of the Americas (FTAA) is expected by 2005. The aim is to link 34 democracies, covering nearly one-third of the globe. To complete the FTAA, American farmers will likely want to return to the U.S.-Canada Free Trade Agreement to fix some things that were left out at the time. The North Dakota Wheat Commission, via its national affiliates, will need to be actively involved in the FTAA negotiation process.

- **Reasonable tolerance levels needed for biotechnology.** Biotechnology products are coming down the pike, whether farmers, governments or Greenpeace like them or not. In the case of wheat, it appears as though biotech-derived varieties will be ready for commercial release as early as 2003. Systems appear to be in place to handle questions of science and food safety. What we lack are systems to deal with the marketing issues. The StarLink corn fiasco demonstrates the need to segregate products and develop reasonable tolerance levels for products derived from biotechnology in non-biotech products.

The Wheat Export Trade Education Committee is proposing a special initiative to ensure that wheat industry issues are heard and integrated into current actions being taken by product developers, regulatory agencies and trade negotiators for entry of biotechnology products into international and domestic trade channels. The WETEC project will provide information and create a forum for sharing information and training on the many facets of biotechnology for all involved parties.

- **Transportation rates and service critical to N.D. producers.** To assist in its efforts with regard to transportation rates and service, the Commission funds data collection and detailed studies through the Upper Great Plains Transportation Institute. With this information in hand, the Commission then works to influence improvements, or at least to prevent further slippage, in cooperation with the North Dakota Grain Dealers Association, North Dakota Public Service Commission and other farm and commodity organizations. This past year, comments to the Surface Transportation Board on rules for approving rail mergers and opposition to the proposed Burlington Northern Santa Fe/Canadian National Railway merger helped prevent a marriage that appeared to offer no benefit to North Dakota producers. The North Dakota Wheat Commission also challenged the Canadian Pacific Railway about rate inequities that exist between southern Saskatchewan and northwest North Dakota to similar U.S. destinations. The Commission also achieved success in encouraging BNSF to develop through rates from North Dakota to Mexico, which is already providing market opportunities for North Dakota producers. Finally, the Commission supported efforts to defeat a Michigan Senate bill that would have increased shipping costs through the Great Lakes.

In the upcoming year, the NDWC will continue to monitor issues surrounding rail merger guidelines, rail rates, shuttle trains and shortlines. Together with the national Alliance for Rail Competition, North Dakota interests and our congressional delegation, we will push for a stronger rail regulatory agency. This will either be achieved with more adequate funding and authorization of powers to the Surface Transportation Board or even by moving rail oversight to the Department of Justice.

RESEARCH AND CUSTOMER SERVICE

The North Dakota Wheat Commission and North Dakota Barley Council partnered in 2000 in a successful campaign to secure an additional \$750,000 for cereal crops research at the USDA Agricultural Research Service lab on the campus of NDSU. The funding, included in the FY2001 Senate Ag appropriations bill, will help to develop remedies for existing and emerging diseases. Of the amount, \$150,000 is to fully fund existing projects, \$300,000 is to fill a vacant wheat geneticist position, and \$300,000 is to hire a wheat/barley pathologist.

Another exciting development in the current biennium is the full staffing in the NDSU Cereal Science Department. Funding in previous legislative sessions made it possible for the department to restore the durum quality research position and most recently, to hire an extension wheat quality specialist. With these faculty members in place, the department is going to be in the best position in years to screen prospective hard red spring, hard white spring, durum and hard red winter wheat varieties for end-use performance, to conduct new and innovative research on end-use issues, to communicate with producers about the quality performance of the wheat they grow and to assist in educating customers about their end-use advantages.

In addition to state and federal contributions for wheat research at North Dakota State University, the Commission's checkoff investment in the 1999-01 biennium is expected to total slightly over a half million dollars. Support from the Commission would have been even greater had it not been for the smaller crop and reduced checkoff revenue in 1999, which forced cuts in nearly all program sectors. For a complete listing of projects receiving checkoff support, see page 8 of the Commission's 1999-00 Annual Report (included).

Here are a few highlights from projects funded in 1999-00.

- **First scab-resistant wheat variety with good processing characteristics released.** North Dakota's wheat checkoff dollars help support the hard red spring, durum and hard white spring wheat breeding programs at NDSU. A major focus in the 1990s has been on developing resistance in wheat varieties to *Fusarium* head blight (FHB), or scab. The fungal disease has caused crop losses in the billions of dollars. That's why the release of Alsen in 2000 is such a victory. This new hard red spring wheat variety shows better scab resistance than all other varieties available AND its milling and baking performance is average to good. Alsen is the culmination of research that started in 1986 when genetic resistance to scab was introduced into NDSU germplasm through a variety from China. In the pursuit of scab resistance, the Commission has always stressed that quality not be sacrificed. It would do producers no good to have a disease hardy variety without acceptance from customers. Alsen should be commercially available to farmers in 2001.

Developing resistance to scab in durum is proving to be more elusive than in spring wheat, but the NDSU durum breeding program has released seven new varieties in the last five years from which growers can choose: Lebsock and Plaza (1999), Maier and Mountrail (1998), Belzer (1997), Ben (1996), and Munich (1995).

- **Double-haploid breeding technique hastening the release of important wheat varieties.** NDSU researchers estimate that their use of a new breeding technique will speed the release of specialty wheat varieties by one to two years. Known as double-haploid production, the technique involves pollinating selected wheat plants with maize, rescuing the developing embryo on artificial media, and chemically doubling the chromosome number of the plants.

With support from the wheat checkoff and the state's Agricultural Research Fund, NDSU's wheat breeding team is successfully applying the technique to red and white spring wheat lines produced for scab resistance, high protein, and noodle quality. The seed from these double-haploid plants was planted in the fall 2000 greenhouse and in a winter nursery in New Zealand to increase seed, which will then be screened for agronomic performance in the spring 2001 field nurseries.

The technique is already rapidly advancing wheat lines that carry traits of major importance to North Dakota producers. NDSU scientists are also working to improve the technique to increase the number of double-haploid plants that can be produced each year.

- **Molecular markers help separate good from bad traits in durum wheat.** Durum is highly susceptible to *Fusarium* head blight (FHB), commonly known as scab. The main sources of resistant germplasm for durum come from a wild relative that also has many undesirable traits. By isolating the molecular markers linked to the resistance genes, NDSU researchers hope to reduce the length of time and the costs associated with breeding for scab resistance.

With support from the state's Agricultural Research Fund and the wheat checkoff, NDSU plant scientist Dr. Shahryar Kianlan has made significant progress in identifying the scab resistance markers in durum. He has identified PCR markers closely linked to the resistance gene on chromosome 3A. This marker has already been used to evaluate a double haploid population and the material was grown in the field for disease evaluation. If successful, these markers will be used in the new Molecular Marker Lab at NDSU for use in screening larger breeding populations.

- **Research aims to transfer scab resistance from wild relative of wheat to HRS.** With support from the Agricultural Research Fund and wheat checkoff, researchers are also crossing wild tetraploid wheat that grows naturally in the Middle East with hard red spring wheat lines from North Dakota. They are evaluating the progeny for resistance to scab, markers linked to resistance and for the transfer of undesirable genetic material.

- **Wheat disease forecasting system expanded in 2000.** Genetic resistance is the best way to combat scab and other diseases, but fungicides can be cost effective in the interim. To help farmers know if and when they should spray, the Commission is investing wheat checkoff funds in an NDSU forecasting system for scab, tan spot, leaf blotch and, for the first time in 2000, leaf rust. The system was expanded into Carrington and Devils Lake regions in 2000. Farmers can access the resulting information through a toll-free phone number or NDSU web site. Fungicide field trials show that by following the suggested disease management system, farmers can effectively suppress disease and increase yield.

DOMESTIC PROMOTION AND EDUCATION

Almost half the demand for the U.S. hard red spring wheat and two-thirds of the demand for U.S. durum comes from right here in the United States. To strengthen this important market, the North Dakota Wheat Commission promotes the consumption of bread and pasta in cooperation with the Wheat Foods Council and, until recently, the National Pasta Association. Trends in per capita flour consumption (at 147 pounds after an almost steady uptrend since 1972) indicate that collectively much progress has been made, but the wheat industry can't stop now. Anti-carbohydrate fad diets make it more important than ever to spread the word about the benefits of bread and pasta.

- **Wheat Foods Council continues strong.** With almost equal support from industry and producers via state wheat checkoffs, the Wheat Foods Council works to increase the consumption of grain-based foods through nutrition, education and promotion programs. In 1999-00, the Council continued to pro-actively confront fad diets that give carbohydrate foods—like those made from wheat—a bad rap. As part of this effort, the Council developed a whole new line of accurate nutrition information and put it in the hands of physicians, nurse practitioners and other health and opinion leaders.

The Council also commissioned a research paper in 2000 by Dr. Joanne Slavin, a professor in the food science and nutrition department at the University of Minnesota. Titled "The Functional Benefits of Grain Foods," the paper underscores the importance of grain foods in lowering risks for heart disease and cancer. The paper also touts the benefits of enriched grain foods, phytochemicals (non-nutrient plant chemicals that contain protective, disease-preventing components) and antioxidants. The Council distributed the paper to 750 editors at newspapers, magazines and wire services nationwide.

This and other media relations efforts by the Council in 1999-00 garnered almost 800 million media impressions in 1,825 newspapers nationwide, 125 consumer magazines, 45 industry trade publications, 21 health and nutrition trade publications, and 14 online and wire services.

- **Needed: A nationwide generic promotion program for pasta.** Citing a lack of participation by major manufacturers, the National Pasta Association folded its product promotion program and closed its Washington headquarters in 2000. The association is maintaining its government relations and technical affairs services to members through its general counsel and is contracting with a management company for organization of its annual meeting. The changes in the NPA leave a wide gap in pasta promotion at a time when anti-carbohydrate diets are still a fad and retail pasta sales are flat. These trends have the Commission concerned about the long-term effects of a void in pasta promotion on the durum industry. With support from pasta companies, it's possible that the Wheat Foods Council might be able to focus some special promotion efforts on pasta, but it may not be the same as having a concentrated pasta program. The Commission is planning to look at options for rejuvenating a nationwide generic promotion program for pasta, using checkoff dollars as leverage to bring pasta manufacturers back to the table for a united industry effort.

- **In-state activities raise awareness about bread and pasta.** The majority of the North Dakota Wheat Commission's budget for domestic promotion is focused beyond North Dakota's borders, where the population centers yield greater returns. However, the Commission does conduct an annual pasta recipe contest for home cooks and a "Broadwinner" contest for North Dakota restaurants. We also coordinate "Pasta Lovers' Week in North Dakota" during the last week of October (includes a statewide media promotion and is timed to coincide with National Pasta Month and World Pasta Day), and "Bake and Take Day" the fourth Saturday in March. In addition, the Commission exhibits at top consumer and nutrition leader events and provides educational materials for schools. Perhaps the most successful educational effort that the Commission has been involved in is the Living Ag Classroom events for fourth graders in Minot and Fargo.

PUBLIC INFORMATION

Linking producers with their customers. The varieties that farmers choose to plant and their production, harvest and storage practices affect the quality of wheat that customers receive and their ability to make the desired product(s) from that wheat. In recent years, U.S. Wheat Associates and the Commission have been working to address several quality competitiveness issues including cleanliness and consistency in milling and end-use performance. The Commission has been working to provide growers, grain handlers, and wheat breeders with important information about the needs of customers and how North Dakota wheat compares with competing wheats. This information has been provided through a number of articles in the Commission's *Dakota Gold* newsletter as well as through face-to-face meetings. In July 2000, the Commission held a seminar for elevator managers and in January 2001, the Commission will participate in a series of NDSU Extension Service schools on producing and marketing quality wheat.

Investors want to know about performance. The leaders of any checkoff program walk a narrow line in spending producer dollars to communicate with producers. The North Dakota Wheat Commission would rather not spend money "preaching to the choir," but at the same time, commissioners recognize that their fellow producers cannot be expected to fund and support a program unless they are informed about the resulting activities and progress. Thus, to keep producers updated on export market development, trade issues, research and domestic promotion initiatives, the Commission publishes an annual report and an almost monthly newsletter called *Dakota Gold*. The Commission also distributes regular statewide news releases, provides speakers for many ag-related meetings and coordinates informational conferences for producers. Nearly 200 producers, elevator managers, extension personnel and end-use customers have been attending the annual NDWC Crop Outlook and Issues Forum in Minot during November. NDWC county representatives also value their annual meeting for the opportunity it gives them to remain updated on Commission activities and to provide input and advice.

All North Dakotans ultimately have at least some need to know. Because income from the production and sale of wheat continues to be a driving force behind North Dakota's economy, the Commission believes that all North Dakota citizens have a vested interest in knowing something about the opportunities and threats in the wheat industry on a state, national and global basis. Thus, some of the Commission's communication efforts are dual purpose, aimed both at producers and the general public. Included is a series of *Wheat Report* radio announcements aired three times per week adjacent to commodity market or farm reports. The Commission is also experimenting with a six-month run of television announcements.

Web site serves multiple goals. The Commission's web site is providing useful information to several audiences including customers, consumers, educators and producers. Since its launch in August of 1998, the site has attracted an almost steady increase in visitors. Statistics for October 2000 were the most positive to date. More than 6,400 user sessions were logged by 3,380 individual users for a total of more than 280,000 hits. The site features basic information about hard red spring wheat and durum. Producers and buyers from around the world are downloading crop quality statistics. Between April and

October, a weekly report on crop progress and conditions is available. Other components include industry news and, more than 200 recipes for bread and pasta, plus educational stories and activities for children.

Future plans. The Commission is planning to survey producers to determine awareness of and support for the North Dakota Wheat Commission and the programs conducted with the wheat checkoff. The results will guide the Commission in its budget decisions and help identify the most cost-effective means of communicating with stakeholders.

ADMINISTRATION

Revenue collection. The Commission collects the checkoff from first purchasers on a quarterly basis. Revenue collections basically match production estimates after allowances for seed, feed and storage.

Refunds. Growers who don't wish to support the work of the Commission may request a refund of the checkoff within 60 days after they sell their wheat. In fiscal year 1999-00, the Commission granted 1263 refunds accounting for 5.9 percent of revenue or \$132,331. The smallest refund was \$0.55, the largest \$2,127.96 and the average \$104.78.

Actual and projected financial situation in 1999-01 biennium. Several program areas were stifled in fiscal year 1999-00 when reduced wheat acres, prevented planting, increased acreage abandonment and poor yields combined to take a 22 percent bite out of production. Revenue totaled \$2.2 million, down 16 percent from the previous year, despite a two-mill increase in the wheat checkoff that went into effect July 1, 1999. As a result, the Commission reduced its special export and domestic promotion efforts for spring wheat and durum, it avoided new research projects, and tightened the belt on its producer information efforts. The larger crop in 2000 has made it possible for the Commission to restore funding to these key program areas. Still, the Commission's projected ending balance on June 30, 2000, is \$887,900, less than the amount required to cover five months of expenditures. This puts checkoff-funded programs in real jeopardy should there ever be a crop disaster like that which occurred in 1988.

Projected Budget for 2001-03 Biennium. The revenue projection for the next biennium (included with this submission) assumes a slight increase in planted wheat acres at 10.4 million, harvested acreage at 9.6 million and an average yield of 31 bushels per acre for total production of 298 million bushels annually. Subtracting roughly 20 million bushels for seed and feed use would put gross revenue at \$2.776 million in each fiscal year.

Under this income scenario, the Commission will maintain full membership in U.S. Wheat Associates (state assessments based upon previous five-year production average) and will supplement this involvement with additional projects specifically geared to the promotion of hard red spring wheat and durum. Other endeavors will include continuing as a full member of the Wheat Foods Council and a campaign to rejuvenate a nationwide generic pasta promotion program by offering checkoff funds as leverage to attract industry contributions. Contingencies are also included for new and unanticipated needs in the area of wheat research. In the area of trade policy, the Commission's Section 301 case should reach closure in the 2001-02 fiscal year, but trade policy needs will undoubtedly continue as negotiations proceed on the WTO agriculture agreement and the Free Trade Area of the Americas Agreement.

If you have questions or concerns about the wheat checkoff program, please contact the North Dakota Wheat Commission, 4023 State Street, Bismarck, ND 58501-0690, phone 701-328-5111, e-mail: ndwheat@ndwheat.com. For additional information, please refer to the printed annual reports included with this submission.

NORTH DAKOTA WHEAT COMMISSION
Bismarck, ND

STATEMENT OF PROJECTED REVENUE AND EXPENDITURES
For the Bienniums Ended June 30
UNAUDITED

Prepared by the North Dakota Wheat Commission

	1999-2001 <u>Biennium</u>	2001-2003 <u>Biennium</u>
Beginning Balance	\$909,051	\$887,900
REVENUES:		
Assessment Revenues Collected from 1st Purchasers	\$4,984,643	\$5,552,000
Less:		
Refunds Paid to Producers	(\$294,097)	(\$327,568)
Net Assessment Revenue	\$4,690,546	\$5,224,432
Interest Income	\$60,510	\$67,395
Promotional sales/misc.	<u>\$4,096</u>	<u>\$3,350</u>
Total Revenue	<u>\$4,755,152</u>	<u>\$5,295,177</u>
Expenditures:		
Program Expenditures:		
Administration	\$385,067	\$421,270
Domestic Promotion	\$449,584	\$550,836
Export Marketing	\$1,606,457	\$1,726,763
Trade Policy & Issues	\$1,172,721	\$1,124,660
Research/Customer Service	\$801,042	\$941,069
Public Information	\$424,803	<u>\$484,582</u>
Less accruals to 97-99 Biennium	<u>(\$63,371)</u>	
Total Expenditures	<u>\$4,776,303</u>	<u>\$5,249,180</u>
Revenues Over (Under) Expenditures	(\$21,151)	\$45,997
Ending Balance	<u>\$887,900</u>	<u>\$933,897</u>
	(4.4 mos. expenditures)	(4.3 mos. expenditures)