

REPORT TO THE 2021 NORTH DAKOTA LEGISLATIVE ASSEMBLY

SENATE & HOUSE AGRICULTURE COMMITTEES

ECONOMIC IMPORTANCE OF WHEAT

Major Commodity. Wheat provides an annual economic impact of about \$5 billion to North Dakota, making it one of the state's most important economic activities. This impact is based on estimates of the direct cash value of annual production, and secondary impacts (multiplier effect) calculated by a formula developed by the NDSU Agricultural Economics Department.

Wheat remains the most widely planted crop in the state, accounting for about one-third of all planted acres. Nationally, North Dakota ranks number one in both durum and hard red spring wheat production, and number two in total wheat production. More frequently however, North Dakota has been the number one all wheat state, due to sharper declines in wheat acres in Kansas.

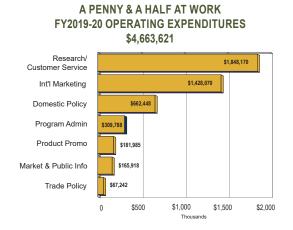
CREATION OF CHECK-OFF

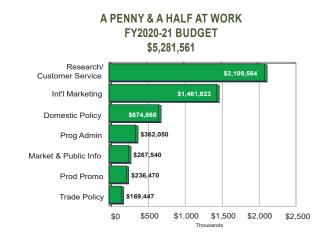
The wheat check-off and North Dakota Wheat Commission (NDWC) were created in 1959 when growers decided a program was needed to fuel their durum and hard red spring wheat (HRS) industry. The per bushel check-off assessment rate has increased, as producer-driven needs have increased. Currently, the assessment is 1.5 cents per bushel. This check-off rate was established in the 2005 legislative session, which also included a provision that designated two of the fifteen mills to state wheat grower organizations for domestic policy work.

Key program areas for check-off investment include: market development programs, research, public information, trade and domestic policy and domestic promotion. Research funding has received increased emphasis in recent budgets, based on producer input, the need to ensure wheat is economically and agronomically competitive with other crops, and that world class quality traits are inherent in our varieties creating better market and pricing opportunities for North Dakota producers.

ORGANIZATION

Wheat producers provide governance and direction to the NDWC through a grassroots approach. Producers elect representatives at the county level, 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 wheat producers make up the board of commissioners, which works to develop policy and programs, oversee program implementation and approve budget expenditures. Commissioners can serve no more than three four-year terms. Five full-time, permanent employees administer wheat check-off programs and activities.





PURPOSE

The NDWC's mission is to sustain and improve the agricultural economy of the state by promoting, aiding and developing the marketing and processing of North Dakota wheat. The organization specifically works to:

- promote programs aimed at increasing the sale, use, and development of wheat, creating more market and pricing opportunities for wheat producers,
- support programs of research, education and publicity,
- seek improvement in wheat genetics, yield, competitiveness and producer profitability,
- distribute and create reliable information on the value of wheat and wheat products for any purpose.

To further leverage ND wheat producer investment, the NDWC partners with other state wheat organizations in regional and national efforts to expand markets for U.S. wheat.

PROGRAM OVERVIEWS AND HIGHLIGHTS

EXPORT MARKET DEVELOPMENT

Export market development, one of the founding principles of the NDWC, remains one of the top priorities for check-off investment. More than one-half of the HRS wheat crop and more than one-third of the durum crop annually finds its home in an international market. On average, 30 percent of the NDWC budget is invested in export marketing conducted in cooperation with U.S. Wheat Associates (USW), a partnership of 17 states. USW secures a match of roughly \$2.00 from USDA for each \$1 invested by producers, effectively tripling the positive impacts for wheat producers.

North Dakota's strength in the international market is high protein, high quality wheat. Although world wheat production has continued to reach record levels in recent years, global supplies of higher quality wheat continues to shrink. The growth of wheat production in Russia and the Ukraine has added intense price competition in the world market, but North Dakota wheat does not compete directly with these medium to lower protein wheats from that region, yet wheat prices on a worldwide basis remain under pressure due to steadily increasing world crops.

HRS and durum grown in the U.S. has a global customer base of nearly 60 countries on a consistent basis. Asia remains the largest export region for North Dakota and U.S. spring wheat, accounting for nearly three-quarters of annual export demand. The Philippines, Japan, Taiwan, China and South Korea have been long-time top-five markets. Other Asian countries, such as Vietnam, Indonesia and Malaysia are also becoming robust demand centers for our wheat. It is the high protein content and superior functional quality which drives demand in this region. Central America and the Caribbean region account for about one-fifth of U.S. exports, led by Mexico, Guatemala, Dominican Republic, Panama and El Salvador. Western Europe is another major international demand center for U.S. HRS. The higher protein content and functional performance of U.S. HRS improves the lower quality features of a typical domestic crop, when blended in European mills.

Europe and North Africa are the largest destinations for U.S. durum exports accounting for nearly 90 percent of annual sales. This Mediterranean demand concentration makes trade servicing and direct, one-on-one technical assistance work with customers very important. In North Africa, durum is used primarily for traditional couscous, but also for pasta and bread production. In Europe, durum is used almost exclusively for very high-quality pasta production, a source of national pride in Italy, our dominant market in recent years; followed by Algeria, Tunisia, Nigeria, Spain, and Guatemala.

TRADE POLICY

The NDWC works with our national wheat groups, USDA, USTR, key Congressional, and Administration officials to foster the most optimal trade environment for U.S. wheat, through new trade agreements, or addressing unfair tariff and non-tariff trade barriers in existing agreements. Current NDWC priorities include: ensuring U.S. producers have equal or better tariff treatment than our competitors in key markets around the world; working to eliminate unfair weed seed, disease or chemical residue limits imposed by importing countries on shipments of U.S. wheat; and addressing barriers in customer countries where additional U.S. market share can be gained.

DOMESTIC POLICY

The 2005 legislature allocated two mills from the wheat check-off to domestic policy efforts through local grower organizations. The NDWC annually contracts nearly \$600,000 for domestic policy efforts through the ND Grain Growers Association and the U.S. Durum Growers Association. Key initiatives supported by producer investment: Farm Bill, Producer Education, Crop Insurance, Transportation and Infrastructure Logistics, Water Management Issues, Disaster Assistance, and Regulatory Overreach and Conservation Issues.

A greater description of contract agency efforts are in their annual reports to the NDWC included with this submission.

RESEARCH

Wheat research investments have produced excellent returns for North Dakota producers, and the entire state economy. Yields and quality have improved, and losses from diseases and insects have been reduced. The NDWC supplements state and federal funding for research, primarily conducted at NDSU, with an investment of more than \$1.5 million annually, about 15 percent of the total partnership. Key investment areas are in Variety development, End-use quality testing, Screening of germplasm for disease and insect resistance, and Soil health. Other research areas include economics, marketing, risk management, transportation, and extension outreach programs.

CUSTOMER SERVICE

Quality reports are chief sales tool. The NDWC and U.S. Wheat Associates partner in the funding of an annual crop survey. The regional effort is led and coordinated by the NDWC which also provides a sizeable portion of the funding for this time proven project. Samples are collected during harvest and analyzed by NDSU wheat quality technicians for grade, protein and other kernel characteristics plus milling, and end-use quality. The results are published, distributed and actively presented directly to domestic and international customers.

Annual crop quality seminars are conducted in cooperation with U.S. Wheat Associates in Asia, Europe, North Africa and Latin America to deliver pertinent and accurate crop quality information to millers and processors, in time for major purchasing decisions in key customer countries. The NDWC has provided hands on support with staff presenting HRS and durum supply and demand and crop quality in seminars around the world. These efforts are complemented by the year-round work of USW staff training customers on performance traits of all six U.S. wheat classes to help them get the end-use results they desire.

Courses provide buyers in private industry with knowledge to successfully buy spring wheat and durum in the face of looming competition from traditional and rapidly emerging, non-traditional suppliers. The NDWC provides project funding to NDSU agricultural economist, Dr. Bill Wilson, to develop pertinent marketing and procurement strategies that benefit customers and our producers. The NCI provides a variety of courses to existing and potential customers pasta processing, grain purchasing, milling and more, all with direct and indirect support from the NDWC.

DOMESTIC PROMOTION AND EDUCATION

NDWC partners with the Wheat Foods Council and the National Pasta Association to promote consumption of wheat foods as part of a balanced diet. Key activities and promotion efforts include:

- Providing scientific information to health professionals, registered dietitians, extension personnel, educators and consumers regarding the nutrition and health benefits of wheat foods.
- Addressing fad diets, particularly "wheat-free" and "gluten-free" diets for those that don't medically need them.
- Working with chefs and other influencers to showcase the versatility of wheat based foods, both enriched and whole grains.
- Pasta Month, an annual promotion to recognize the importance of the durum and pasta industries in North Dakota and help educate the general public about durum and pasta production.
- Living Ag Classroom educates our youth about wheat production and wheat products, even more important as each generation gets further removed from direct farm experiences.

Visit the Wheat Foods Council website –www.wheatfoods.org – and the National Pasta Association website – www.ilovepasta.org – to learn more about national promotion activities.

PUBLIC INFORMATION

The NDWC uses many platforms to communicate with producers and other stakeholders. Communication tools include: regional and statewide educational programs for producers, students and consumers; Dakota Gold newsletter, Annual Report, Web Site, Social Media, Radio Ads, and outreach to print, TV and radio media.

Also vital to our public information efforts is the network of county representatives who provide a more local contact with wheat producers throughout the state. Educational and information efforts with our county representatives helps them communicate the investment priorities and beneficial outcomes for wheat producers and their check-off. County representatives are also a valuable asset in the formulation of NDWC policies and programs.

ADMINISTRATION

Revenue collection. The Commission collects the check-off from first purchasers on a quarterly basis. Annual revenue collections are based on the volume of actual commercial sales during the fiscal year, not annual production. Direct on-farm personal seed use is not assessed, but commercial seed transactions are.

Refunds. The wheat check-off program is voluntary in the aspect that a producer may request a refund within 60 days after the assessment has been taken by a first purchaser or by USDA on a CCC loan. In recent years, refunds have ranged from 5 to 6 percent of overall wheat check-off collections, and typically remain repeat producers.

Financial overview. Net revenue in the 2019-21 biennium, currently estimated at \$9.3 million. Planted acres declined, but production remained strong due to record setting yields. Total expenditures are projected to be \$9.9 million for the biennium which closes June 30, 2021. The NDWC fund reserve balance is estimated at \$6.0 million by that date.

PROJECTIONS FOR 2021-2023 BIENNIUM

Wheat producers can take pride in the fact that market opportunities for the high protein high-quality wheat grown here and, in the region, continue to expand in Asia and other key destinations including our own high quality domestic market. Wheat will continue to be a very important crop in the state. Crop diversity and competition for acres has certainly expanded in recent years, driven by new technologies, and benefits of crop rotation in disease management and soil health strategies. Wheat has proven it can compete with other crops from a profitability and management standpoint. Wheat plantings are anticipated to continue to hold about one-third of total annual area planted to all crops in the state. Average yields have steadily increased to record levels in recent years and our quality reputation remains unequalled in global markets.

The NDWC budget outlook for the next two years is based on similar acreage estimates and average yields. A conservative average production estimate of roughly 312 million bushels each year, and a check-off rate of 1.5 cents per bushel, would generate a conservatively estimated gross check off revenue of \$8.9 - \$9.2 million in the 2021-23 biennium. Net biennial check-off revenues in 2021-23 after refunds to producers are estimated at \$8.6 million.

If you have questions or would like to learn more about the wheat checkoff program, please contact:

North Dakota Wheat Commission 2401 46th Avenue SE, Suite 104 Mandan, ND 58554-4829

• phone 701-328-5111

email: ndwheat@ndwheat.com

• web site: www.ndwheat.com

For additional information, please refer to the Annual Reports to Producers for fiscal years 2018-19 and 2019-20 on our website.



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

	Actual Budget 2019-2021 <u>Biennium</u>	Projected Budget * 2021-2023 Biennium
BEGINNING BALANCE	\$6,616,232	\$6,007,340
REVENUES:		
Assessment Revenue Collected from 1st Purchasers Less:	\$9,893,530	\$9,180,000 *
Refunds Paid to Producers	(672,749)	(597,000)
Net Assessment Revenue	9,220,781	8,583,000
Interest Income	46,142	15,000
Promotional Sales/Miscellaneous	69,366	22,000
Total Revenue	<u>\$9,336,289</u>	<u>\$8,620,000</u>
EXPENDITURES:		
Administration	\$671,838	\$700,000
Domestic Product Promotion	418,455	420,000
Export Marketing	2,889,893	2,900,000
Policy & Issues		
Trade	236,688	250,000
Domestic Research/Customer Service	1,337,116	1,350,000
Public Information	3,957,733	4,035,000
Public Information	<u>433,458</u>	<u>447,000</u>
Total Expenses	<u>\$9,945,181</u>	<u>\$10,102,000</u>
Revenues Over (Under) Expenditures	(\$608,892)	(\$1,482,000)
ENDING BALANCE	\$6,007,340	<u>\$4,525,340</u>

^{*}Based on (2) 312 MB Crops (2021 & 2022)

	Actual	Budget
Checkoff supported Research projects	FY 2019-20	FY 2020-21
End Use Quality	\$733,500	\$766,000
Ag Products Development Center	\$300,000	\$300,000
Crop Quality Survey	\$58,000	\$60,000
Durum Quality Research Support	\$42,500	\$45,000
End-Use Market Development	\$40,000	\$50,000
HRS Quality Research	\$40,000	\$40,000
HRW Quality Research Support	\$30,000	\$30,000
Kernel Bleaching of Durum	\$30,000	\$30,000
Mixograph	\$0	\$33,000
Peroxidase Activity and Pasta Brightness	\$25,000	\$0
Specialty Wheat Quality Research Support	\$47,000	\$47,000
Specialty Wheat Quality Research Technician	\$58,000	\$58,000
Technical & Info Services	\$58,000	\$58,000
*Tempering HRS Wheat for Chlorinated Water	\$5,000	\$5,000
Vibe QM3 Seed & Grain Analyzer	\$0	\$10,000
Wheat Breeding/ Genetics	\$355,180	\$438,933
Develop Haploidization System for Wheat Breeding	\$0	\$34,826
Durum Breeding	\$100,000	\$105,000
Durum Germplasm Low Cadmium	\$18,100	\$18,100
Enriching the Gene Pool for Wheat Impr	\$35,000	\$35,000
*Eval Durum Lines for Kernel Shape/Size	\$0	\$8,257
Field Plot Combine	\$0	\$60,000
Genomic Selection to Improve Durum Yield/Quality Genomic Selection to Accelerate Breeding Populations in Spring Wheat	\$43,080	\$33,000
HRS Wheat Breeding	\$10,000 \$125,000	\$20,000
HRW Breeding	\$123,000	\$100,750 \$24,000
Agronomic/Disease/Pest Management	\$185,273	\$234,000 \$234,012
CRISPR/Cas9 Genome Editing	\$30,000	\$234,012
DON Testing of Durum in Western ND	\$7,080	\$7,080
DON Testing of HRS in Western ND	\$0	\$7,080
*Early Generation Selection in HRW	\$5,000	\$0
Eval Fungicide Seed Treatments	\$8,060	\$8,060
Eval Germplasm to Stem/Leaf Rust Resistance	\$0	\$35,099
Eval Stripe Rust Pathogens at High Temps	\$0	\$18,000
Eval Tools for Head Blight/Ergot/Leaf Streak	\$0	\$25,190
FHB Resistance in Wheat	\$30,000	\$30,000
*Genomic Back Cross to Improve Durum Yield	\$3,000	\$3,000
*Investigate Prevalence of Tan Spot in Durum	\$6,555	\$6,693
Method to Detect Bacterial Leaf Streak Pathogen	\$21,480	\$21,480
New Varieties High Input Management	\$14,500	\$19,500
*Nitrogen Dynamics in Mixed Species Crop Residue	\$2,684	\$5,916
*Plant Resistance to Wheat Stem Sawfly	\$6,914	\$6,914
Orange Wheat Blossom Midge Survey	\$10,000	\$10,000
Resistance to Bacterial Leaf Streak	\$30,000	\$30,000

Wheat Desiccation Trials	\$10,000		\$0
Marketing/Economics	\$123,000		\$78,000
Commodity Trading Room	\$50,000		\$0
Market Development Support	\$18,000		\$20,500
Strategy/Analysis for New Technology Collaborations	\$20,000		\$22,500
Upper Great Plains Transportation Institute	\$35,000		\$35,000
Other	\$159,365		\$280,000
Equipment Maintenance	\$9,365		\$30,000
Northern Crops Institute General Support	\$100,000		\$100,000
New Technology Research Contingency	\$0		\$100,000
Wheat Marketing Center	\$50,000		\$50,000
Soil Science	\$121,349		\$99,011
Wheat Response to Salinity	\$31,628	\$	31,628
Lime Application Effects on Soil PH & HRS Wheat	\$14,056		\$0
Lysimeter Study	\$26,822	\$	18,540
SHARE Farm-Larimore	\$48,843	\$	48,843
Total	\$1,677,667	\$	1,895,956

^{*}Checkoff match to grants approved by the Wheat Research Committee of the State Board of Agricultural Research and Extension (SBARE).



North Dakota Grain Growers Association

NDGGA Overview

- NDGGA, established in 1967, represents 15,000 wheat and 4,000 barley farmers on state and federal domestic policy issues through our contracts with the North Dakota Wheat Commission and the North Dakota Barley Council.
- NDGGA is governed by 12 Directors elected from each corner of the state.
- Tom Bernhardt, Linton, N.D., is NDGGA President.
- NDGGA employs James Callan and Associates to represent us in Washington D.C.; James has over 30 years of experience on Capitol Hill. NDGGA also belongs to the National Barley Growers Association on the national level.

NDGGA Activities

- NDGGA E-Tour; for 27 years the Association has hosted EPA on a tour of North Dakota agriculture to demonstrate North Dakota environmental stewardship.
- NDGGA, along with the North Dakota Wheat Commission, helps to sponsor the "Best of the Best" in wheat research series featuring NDSU research and extension.
- NDGGA, along with the Minnesota Association of Wheat Growers, hosts a Big Iron Marketing Seminar and the Prairie Grains Conference annually.
- Beginning in 2021 NDGGA will be offering four \$500 scholarships annually for students attending North Dakota universities and technical schools.

NDGGA issues

- Federal farm policy
- Federal and state regulations
- Transportation issues
- Agricultural research on the state and federal levels
- Ag Products Development Center support in North Dakota

More about NDGGA

Follow NDGGA at: www.ndgga.com, North Dakota Grain Growers Association on Facebook, @NDGrainGrowers on Twitter and ndgraingrowers on Instagram.

Thanks to the North Dakota Legislature for your support of N.D. agriculture!



U.S. Durum Growers Association

PROMOTING THE PRODUCTION AND MARKETING OF DURUM AND SEMOLINA

P.O. Box 1091 • Bismarck, ND 58502 • (701) 214-3203 office@durumgrowers.com • www.durumgrowers.com

Summary of Activities 2018-2020

Description of the group (how it is governed)

The purpose of the United States Durum Growers Association (USDGA) is to promote the production and marketing of durum wheat, semolina and lobby on domestic policy issues that affect durum producers. It is funded by membership investments and an annual contractual agreement with the North Dakota Wheat Commission (NDWC) for domestic public policy. Two of the five mills allocated to the NDWC through producer assessments (check-off) are split between USDGA and the North Dakota Grain Growers Association. The amount allocated to each organization is based on a formula, which takes into account acres planted and actual production.

The board of directors consists of 12 members: five from North Dakota, one from Montana and six atlarge appointed by the board of directors. Director terms are three years and a director is limited to serving three complete, consecutive terms. Annually, the board of directors elects the executive committee, consisting of a president, first vice president, second vice president, secretary/treasurer, and past president. The board of directors appoints an executive director.

USDGA contracted with Clearwater Communications in May 2012 to provide executive director services. Clearwater Communications Chief Executive Officer Deana Wiese serves as the executive director, and Assistant Account Executive, Alyssa Mutschelknaus serves as the assistant executive director.

Program Descriptions (2018-2020)

USDGA reviews its mission and long-term goals annually as part of development of its annual work plan and budget, which identifies its priorities for each year.

Mission

Increase the profitability of durum production through effective market development and promotion and coordinated communication and educational outreach.

Effective Domestic Policy Development and Promotion

Initiate promotional efforts and influence public policy to increase durum demand and profitability.

- Provided funding to the North Dakota Association of Soil Conservation Districts (NDASCD) for Natural Resources Conversation Service (NRCS) staffing in regard to producer conservation.
 The staffing was previously provided by conservation entities, which the agricultural industry felt was a conflict of interest given the conservation entities may be in conflict with the landowners.
- Worked in coordination with federal lobbyist Jim Callen on durum advocacy including outlining the inequity in durum trade between the U.S. and Canada and separation of durum and spring wheat in enterprise units.
- Provided policy and advocacy services during the 2019 Legislative Session, including monitoring
 33 bills and taking policy action on eight pieces of legislation which included the following.
 - Supported <u>SB 2297</u>: Provided appropriations and bonding authority for numerous North Dakota University System projects including the NDSU Ag Products Development Center
 - Supported <u>HB 1020</u>: NDSU Ag Research and Extension budget
 - Supported HB 1383: Created the environmental impact mitigation fund
 - Opposed <u>HB 1523:</u> Required any department or agency to transfer any reserve that is unobligated above its annual expenses to the Legacy Fund
 - Supported SB 2197: Provided an extension of a financing option for young farmers
 - Supported SB 2315: Addressed private property and land access issues

- Supported <u>SB 2360</u>: Modernized the farm home property tax exemption to fit the IRS definition of a farmer.
- Supported <u>SB 2346</u>: Addressed grain buyer insolvency issues and moved the grain buyer licensing program from the PSC to the Department of Agriculture.
- Monitored Interim Agriculture Committee activity issues of interest to durum producers. This
 included the Agriculture and Transportation Committee, which studied the state's grain buying
 system; the Natural Resources Committee, which is studyed property rights. Other issues that
 continue to be monitored include, the NDSU Ag Products Development Center and SBARE
 priority development.
- Provided policy updates to member and industry stakeholders on durum-specific issues.

Coordinated Communication and Educational Outreach

Provide a unified voice for the durum industry through audience-specific messaging to educate producers and the public on the production and marketing of durum.

- USDGA directors and staff attended ag shows in Great Falls, M.T., Minot and Williston to promote membership, educate the public on the production and use of durum and inform attendees of USDGA programs and activities.
- Served as an associate board member of the National Pasta Association (NPA), attended the NPA annual meeting and convention and Board members provided processers with the producers' perspective of the production chain.
- Contributed to the National Pasta Association Pasta Fits! digital marketing campaign.
- Published bi-annual issues of the Durum Kernel and established the monthly e-Update.
- Partnered with NDWC to host the annual Crop Outlook & International Durum Forum in person and virtual programs.
- Awarded the Monroe Scheflo and USDGA Scholarships annually to full-time North Dakota college students who are pursuing a degree in agriculture.
- Awarded the annual Amber Awards to producers and industry stakeholders making significant contributions to the durum industry.
- Promoted October as National Pasta Month by partnering with NDWC on radio and newspaper promotions.
- Continued to build and maintain relationships with key durum industry representatives from Arizona and Montana.
- Strengthened and built relationships with industry stakeholder groups by participating in meetings with state leaders, North Dakota's congressional delegation and other ag-related groups.
- Participated in ND Ag Coalition and ND Department of Ag Council and Associations meetings.
- Updated USDGA website to provide resources and information to the general public.
- Participated in the North Dakota Grain Growers Association (NDGGA) E-tour.



Agricultural Products Development Center and the Northern Crops Institute: A Winning Partnership









HISTORY

North Dakota State University has a long, rich history of agricultural product research, For more than 60 years, Harris Hall (built in 1954) has been the center for grain and food science research on campus. With milling and baking, pasta processing and wheat quality testing, malting and brewing, and more, the research in Harris Hall is vital to support the growth and prosperity of North Dakota agriculture.

Across campus is Shepperd Arena (built in 1952), home to the NDSU meats laboratory. Here animal science students and faculty work to improve the quality and safety of meat products.

For decades, the synergistic collaboration between the Northern Crops Institute (NCI) and NDSU spans multiple departments and units. NDSU faculty routinely provide expertise for NCI international trade teams and visitors who come to explore opportunities for purchasing North Dakota agricultural products. NCI also brings domestic and international corporate partners and businesses to campus to solve technical problems, engage in training programs and develop value-added ventures.

The partnerships among NDSU, NCI and industry, grower groups and producers have resulted in advances that have fueled agriculture in this region. However, the facilities that house them are not adequate for 21st-century needs.

THE VISION

To address the challenge of a growing world population and food security, we need to bring together scientists, teachers, producers, customers and students who will develop innovative solutions to these complex problems. Co-locating NDSU's food, meat and grain science laboratories and NCI under one roof will create the environment to meet this objective. Having highly talented NDSU scientists collaborate with domestic and international customers means greater revenue and market access for North Dakota farmers and ranchers.

WHO BENEFITS?

- North Dakota farmers and ranchers
- North Dakota agribusinesses and food processing companies
- Domestic marketing companies and exporters
- Rural communities
- Students
- Consumers
- Taxpayers



THE FUTURE with the Agricultural Products Development Center and NCI

Expanding and enhancing research and teaching capacity at NDSU through the Agricultural Products Development Center (APDC) and co-locating it with the Northern Crops Institute will ensure a prosperous future for North Dakota's agriculture community, including:

- Growth of New and Existing Markets— Developing new and growing existing markets is critical to agricultural success. The people brought together in this facility will provide research and development to support this need. including expanded testing and developing
 - new and better uses of these ingredients. Improvements in product quality open new markets and enhance existing markets.
- Contemporary Facilities for Work and **Discovery** — The building will feature modern classrooms and laboratories designed to provide the best teaching, research and product development experience in the region. The meat science laboratory will be designed for live and online demonstrations of carcass breakdowns. The food-grade laboratories will feature modern testing, milling, processing and baking equipment, allowing students to work in spaces that mimic the industry as well as giving them entrepreneurial opportunities for product development. The addition of a sensory science laboratory to the meat, grain and food science programs will be a catalyst for product development, allowing researchers to gather insights on consumer reactions to product characteristics
- More Graduates Ready for the Workforce The APDC will increase research opportunities and the number of students graduating from the grain, food and meat science programs. This facility will ensure graduates are ready to fill the industry's vast and ever-changing needs.

- Enhanced Value-Added Opportunities and Partnerships with Industry - The technical expertise of NDSU scientists and NCI professionals helps existing businesses grow, assists with development of valueadded businesses and creates entrepreneurial opportunities. Further processing of our agricultural commodities provides economic opportunity and growth for rural areas, creates jobs, and grows and diversifies the tax base. A long-term outcome of this investment will be further enhancements in value-added agricultural processing businesses across the state.
- Improved Ability to Educate Foreign and **Domestic Customers** — North Dakota has long been known for excellent quality agricultural commodities. NCI's role in educating our customers will be expanded and enhanced. Foreign and domestic buyers will learn from experts about the quality of our products, how to best use them in their product lines, and how to manage purchases and logistics from regional suppliers. This translates into market access as well as enhanced revenues for North Dakota farmers and ranchers, and rural communities.

For further information, contact Dr. Greg Lardy 701-231-7660 or gregory.lardy@ndsu.edu







Importance of International Trade and Agriculture to North Dakota

Neal Fisher, (revised Dec 2020)

International trade and those affected by it have become prominent main street topics as the United States and U.S. trading partners continue to wrestle with an increasingly contentious global trade atmosphere. There have been some positive outcomes in recent negotiations. The China Phase 1 Agreement, U.S. wins in two cases against China at the WTO, USMCA, the Philippines Turkish Flour Dumping case, Brazil wheat TRQ enforcement and leveling the potential disastrous U.S. wheat tariff disadvantage to Canada and Australia in the Japanese wheat market.

Annual U.S. Agricultural exports were valued at \$140.5 Billion in recent years, with a \$20-30 billion trade surplus. Agriculture is the only sector of the U.S. economy to consistently register a trade surplus, exporting more than we import. Agricultural exports also account for one third of U.S. gross farm income and generate 8,000 jobs for every \$1.0 Billion in exports, or 1.1 million jobs last year. Agricultural exports are forecast to increase to nearly \$152 billion in 2020 with heavy additional business done in the last two quarters of 2020.

The ability to trade, build long term market relationships, and protect hard won market shares in key customer destinations is extremely critical for North Dakota agriculture, our state's primary industry, economic engine, and revenue generator. This has been the case for a very long time and remains so today. Trade in an environment that is as free flowing as possible, as fair and as rule-based as possible, or as fair and free as can be negotiated, is mostly a desirable situation. In contrast, several memorable historic events that were in part attributed to diplomatic and trade frictions include: commodity embargoes four decades ago that precipitated devastating economic downturns in U.S. agriculture and the North Dakota economy, earlier (national) isolationist trends that have long been linked as catalysts to epic world wars, and other historic conflicts over trade routes, and the goods that have for centuries traveled over them.

Most of what is produced in North Dakota with a lot of determination, effort and efficiency, must find its value and therefore a market beyond our state's borders, whether our product is agricultural, or not, processed, packaged or refined, or not, or involves the latest technology and accompanying intellectual property rights, or not. These goods have always generated much more value if those who want or need to access them and are willing to pay premium prices, can readily do so. Producers benefit from stronger demand, increased marketing opportunities, and potentially stronger prices.

Trade policy experts often remind us that 95 percent of all potential customers (global population 7.6 billion) reside outside of the United States (population 350 million). In the wheat industry on average 85 percent of the annual production leaves North Dakota (population 750,000) for premium markets in other parts of the U.S. and hundreds of individual premium market destinations in nearly 80 foreign countries each year. On average North Dakota produces more than 50 percent of total U.S. HRS production. There is typically a 50/50 split between domestic consumption throughout the U.S., and the

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Fax: 701/663-5787 e-mail: ndwheat@ndwheat.com web site: http://www.ndwheat.com export market, where U.S. hard red spring (HRS) wheat also typically garners the highest prices of any wheat traded in the global market.

Sales to Asian destinations with high quality tastes and demand have accounted for more than 70 percent of that export business, with the remainder moving to quality conscious markets in Europe and Latin America. Explosive market growth is expected to continue in Asia, particularly in the Philippines, Indonesia, Taiwan, Korea, Vietnam, Malaysia, and China where most of these countries are centers of growth in population, middle class incomes, and quality wheat demand. The Philippines has already surpassed Japan, the longtime top destination for U.S. and North Dakota HRS. Nearly all of these countries are on the U.S. HRS top 10 customer list. Total U.S. HRS exports to Asia alone averaged 175 million bushels over the past five years and reached 210 million last year. These hard won markets have been earned with high quality, reputation, trade service, and significant producer checkoff investment.

North Dakota is very likely affected more by trade policy and other agriculture related policy decisions than almost any other state. A recent USDA map shows total prospective acreage of principal crops at 24.0 million acres in North Dakota, topped only by lowa's 24.3 million. Kansas came in third, at 23.5 million, Illinois fourth, at 22.7 million and Texas fifth, at 21.8 million. After Minnesota's 19.5 million acres and South Dakota's 17.6 million, planted acreage of USDA's principal crops falls off pretty quickly in the rest of the U.S. with 30 states under 5 million.

North Dakota production of primary crops and livestock over the past decade has been valued at an average of \$8.3 Billion as annual gross cash farm gate sales (simply price X quantity). Over the same 10-year period those annual values have ranged from \$7.0 Billion in 2011 to 11.6 Billion in 2012, according to USDA-NASS reports. Crop insurance and Government payments would add an average of \$960 million to the 10-year average, raising it to \$9.3 Billion per year over the past decade. As expected these additional payments tend to augment the gross cash value of actual production in the lower performing years, helping to stabilize producer incomes and the value or contribution of the industry to the state and local economy year over year, as intended. Agriculture remains an extremely important part of the economy of the state of North Dakota and the nation as a whole. The continued productivity and resiliency of our agricultural sector and the phenomenon of international trade makes much of this possible.

