For the Land and Its People

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September-October 2021

In last year's September/October issue I wrote about how we were living in uncertain times, and the same holds true today. What has become even more clear to me in the past year, is that we must keep moving forward no matter the challenges and uncertainty. We must keep showing up with empathy and generating new ideas and working toward the common good. The stories in this issue highlight the ways in which the North Dakota Agricultural Experiment Station (NDAES), College of Agriculture, Food Systems, and Natural Resources (CAFSNR) and NDSU Extension are continuing to move forward.

Enjoy.

Greg Lardy

Vice President for Agricultural Affairs

NDSU NORTH DAKOTA STATE UNIVERSITY

College of Agriculture, Food Systems, and Natural Resources North Dakota Agricultural Experiment Station NDSU Extension



NDSU Greenhouse Renamed for Former N.D. Governor

The North Dakota Agricultural Experiment Station Research Greenhouse Complex at NDSU has a new name: the Jack Dalrymple Agricultural Research Complex.

"Former Gov. Dalrymple was instrumental in helping identify the pathway for funding the project in both the Legislature and work with the governor's office," says Greg Lardy, NDSU's vice president for Agricultural Affairs, dean of the College of Agriculture, Food Systems, and Natural Resources, and director of the North Dakota Agricultural Experiment Station and NDSU Extension. "He had a vision for what the greenhouse could do in terms of helping to address many of the pressing needs related to the state's agricultural industry."

The complex was constructed using a combination of state dollars and private donations totaling \$33.5 million - \$28.5 million in appropriated funds and \$5 million in donations.

"I am truly honored and humbled to have this incredible agriculture complex carry my name," Dalrymple says. "Research is an investment in our future, and by extension, it is an investment in the future of our state and region. Indeed, it helps all humankind in a very positive way."

This state-of-the-art complex, which was dedicated in 2015, provides facilities for advanced research in plant breeding, genetics, horticulture, entomology, plant pathology, plant nutrition, food safety, food science, soil science and weed science.

NDSU is the only university in North Dakota with a greenhouse that houses a research lab, which allows researchers to proactively examine diseases that won't be here for years.

The greenhouse complex has expanded research capabilities to benefit producers and business through increased productivity and sales. It also helps attract and retain top-ranked scientists and educators. In addition, the facility enhances graduate student research by enabling them to experience the latest technology and conditions and trains highly skilled professionals for the workforce.

FOR MORE INFORMATION:

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Online Tools, Agents Help Producers Cope With Drought

This year, farmers and ranchers are turning to NDSU Extension's online tools to help them cope with the drought.

Most often used are the FeedList, Livestock Forage Program (LFP) payment calculator, corn value calculator, farm budgets and NDSU Grazing Calculator app.

The FeedList website connects farmers and ranchers who have feedstuffs for sale or to donate with those who need it. The LFP payment calculator calculates estimated Livestock Forage Program payments. The Corn Silage Decision Tool spreadsheet helps producers determine a fair price for a standing corn crop.

Crop budgets provide an estimate of revenues and costs for selected crops. The Grazing Calculator app calculates range and forage production, which helps producers estimate livestock carrying capacity and set initial stocking rates.

Farmers and ranchers also are turning to Extension for help in getting their crops and livestock water tested. Agents are advising producers to get their crops tested for nitrates if they plan to let cattle graze the crops, or

feed. Crops such as droughtstressed corn and small grains can accumulate nitrates, and high levels of nitrates can lead to nitrate poisoning.

"It's not a matter of if you have nitrates this year," says Scott Knoke, an Extension agent in Benson County. "It's a matter of the level of the nitrates."

Agents also are testing producers' livestock water sources for sulfates and total dissolved solids (TDS), which are high this year because of the drought. High levels of TDS and sulfates can be toxic to livestock. Agents have screened more than 1,000 livestock water sources this year.

"It was very helpful to have a county agent come out to the ranch and check the water supply," producer Erika Kenner of Leeds says.

As a result, the Kenners have moved stock to water sources with better quality water. They also set up additional water tanks and are using well water.

FOR MORE INFORMATION:

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By providing a raw product like wool, that can be transformed into something useful, we are helping people connect with the land-grant mission of NDSU. This wool helps tell agriculture's story in a unique way.

From Fock to Fabric: How the Hettinger REC Sheep Flock is Contributing to Student Success

In the fall of 2020, NDSU unveiled a product that is a must for all Bison fans. Made with wool from NDSU's Hettinger Research Extension Center flock of sheep, the NDSU Tartan blankets are warm, soft and uniquely NDSU through and through.

Available exclusively at the NDSU Bookstore, the wool blankets are the finished product of the "From Flock to Fabric: Weaving Scholarship into The Fabric of Student Success" project organized by NDSU's College of Human Sciences and Education and College of Agriculture, Food Systems and Natural Resources.

"Proceeds support student scholarships in NDSU's Department of Animal Sciences and Department of Apparel, Merchandising, Interior Design and Hospitality Management," says David Buchanan, NDSU College of Agriculture, Food Systems, and Natural Resources associate dean. "To date, this project has generated more than \$3,400.00 for student scholarships."

The story of the blankets began two years ago, when Hettinger REC Director, Chris Schauer, first suggested a project using NDSU wool with the NDSU Tartan pattern.

Founded in 1909, the Hettinger REC has owned a flock of sheep since 1944.

The project got rolling in early 2020, when approximately 175 head of Rambouillet sheep at the center were shorn to provide about 1,800 pounds of wool.

"The wool was tested to be 22.5 microns," says Schauer. "Wool of this quality provides a blanket that is both strong and warm – a perfect combination for outdoor use at football games or as a blanket for a picnic."

"The wool in these blankets is the result of 76 years of breeding and selection for sheep that provide meat and wool while serving the research needs of agriculture producers in North Dakota," Schauer says.

In June of 2020, the wool was shipped to the Mountain Meadow Wool Mill in Buffalo, Wyoming, to be spun into yarn. From there, the next step was the Faribault Woolen Mill in Faribault, Minnesota, where the yarn was woven.

The blankets are 50 inches wide by 72 inches in length, with a 2-inch fringe.

The yarn was dyed by hand, which gives an artisan look to the colorations. Each blanket will have its own individual shading, but all will be woven with the same NDSU Tartan pattern, which was created by an NDSU student in 2011. The Tartan pattern is used extensively as a product

development project in courses in the Department of Apparel, Merchandising, Interior Design and Hospitality Management.

"I'm extremely proud of this particular product because it is the result of all things NDSU," says Sara Sunderlin, senior lecturer of apparel, merchandising, interior design and hospitality management. "It was created by a team of NDSU people, and all aspects are 100 percent American made. It is a special product that will be loved for many years by NDSU alumni and fans."

"NDSU alumni and friends can display Bison pride in their homes and pass this heirloom quality blanket on to future generations of NDSU alumni," she said. "The people who purchase these blankets also will know that they are directly supporting NDSU students."

In addition to wool blankets, wool pillows featuring the NDSU Tartan pattern also have been released. In the fall of 2021, green and yellow beanies will be available using wool yarn from Hettinger's flock.

Though future wool products are anticipated, only an estimated 60 blankets remain available for purchase.

"By providing a raw product like wool, that can be transformed into something useful, we are helping people connect with the land-grant mission of NDSU," says Schauer. "This wool helps tell agriculture's story in a unique way."

FOR MORE INFORMATION:

https://youtu.be/mfMga2VNdhU

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NDSU Extension Launches Rural Aging Initiative

own homes and communities as long as possible, but access to health care and finding resources that promote health and wellness in rural communities can be challenging

To help older adults stay healthy longer, NDSU Extension has launched the Aging in Community (AIC) Project.

The AIC Project is an initiative to improve the quality of life for older adults who wish to stay in their rural homes and communities. NDSU Extension will work with community stakeholders in two rural communities to identify solutions to rural aging issues. The project will be piloted in the Lisbon area and rural Morton County.

The project is based on a successful model of community-based care in rural North Dakota, called Community of Care, that has proven

to help older adults live with autonomy and dignity. The Community of Care model will be adapted and/or replicated in the two pilot communities and be evaluated for effectiveness, replicability and sustainability.

A project of this type is greatly needed in North Dakota, according to Jane Strommen, NDSU Extension gerontology specialist.

"North Dakota is faced with unique challenges in caring for and about its older residents," she says. "Two-thirds of its counties are designated as frontier (less than six residents per mile). A documented shift of the state's population from rural counties to urban areas has resulted in a higher proportion of older adults in small towns and sparsely populated locations."

Between 2019 and 2029, the state's population of people 65 and older is projected to increase by 32%. In contract, the working-age population (ages 20 to 64) is projected to decrease from 59% in 2016 to 55% in 2029, placing additional burdens on a critical workforce shortage.

In addition, the state's budget has been impacted by slumping economies in its major industries: agriculture and oil production. The COVID-19 pandemic also has placed undue burdens on the state's economy and its people.

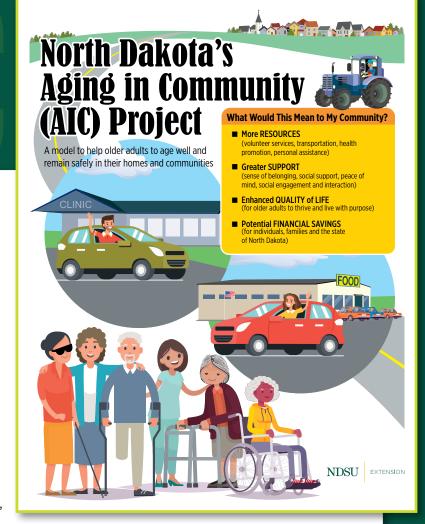
"Assuring North Dakota is a good place to live and age well is a complex problem needing an integrated and collaborative solution," Strommen says.

The first phase of the AIC project has begun with the recruitment of staff. To date, a program coordinator for rural Morton County and a volunteer coordinator for the Lisbon area have been hired. Once staff are in place, local stakeholders will be invited to serve on a steering committee that will provide critical input on the development of each pilot project.

This initiative is supported in part by a \$1.51 million, three-year grant from Margaret A. Cargill Philanthropies.

FOR MORE INFORMATION:

https://www.ndsu.edu/agriculture/extension/extension-topics/home-and-family/aging-well Jane Strommen, 701-231-5948, jane.strommen@ndsu.edu



Fargo for the Extension Youth Conference (EYC).

The EYC brings together youth from across the state on the NDSU campus to build leadership skills, participate in service learning and attend hands-on educational workshops. This event aims to put the 4-H motto of learning by doing into practice as a team of 4-H Ambassadors, who are ages 16 to 22, plan and facilitate the conference.

"Planning and running EYC alongside my co-chair, Haley Cowan, was an unforgettable experience," 4-H Ambassador Skyler Manney says. "As youth leaders, we were given so much room to be creative and make the conference perfectly fit our vision."

The EYC helps youth see opportunities for continued 4-H involvement beyond their club.

"I now have a better understanding of food insecurity, and this community issue is frequently on my mind," says Andrew Myrdal, a newly elected Ambassador from Walsh County. "Attending EYC inspired me to become a 4-H ambassador."

Grace Goettle of Morton County built relationships with North Dakota youth during the EYC.

"Because of how welcoming everyone was, I wasn't afraid to talk to people, which has continued to help me make and build friendships outside of the conference," she says.

EYC leadership learning included Real Colors, a personality instrument that taught youth to understand themselves and how to interact

better with others.

"I learned more about
myself with the color activity we
did," Alyssa Thomsen of Barnes County says.

"I plan on continuing to use the knowledge that I took away from the workshops in my everyday life," says Michaela Mitchell of Stark-Billings County.

Extension

Conference

a Learning

Experience

Youth

"Whether learning about artificial insemination or how to line dance, or preforming for the variety show, EYC is great experience for older youth whether in 4-H or not," says Sue Quamme, NDSU Extension's 4-H youth leadership and civic engagement specialist.

FOR MORE INFORMATION:

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www.ndsu.edu/vpag

NDSU's Land-Grant Mission

The College of Agriculture, Food Systems, and Natural Resources has a tradition of excellence in educating students for real-world careers. Our students learn from and work with world-class scientists in state-of-the-art facilities. These interactions, along with a relatively low studentfaculty ratio, provide opportunities for students to develop their critical thinking skills, to work in a team setting, and to capitalize on hands-on learning experiences that will allow them to be competitive in a global economy.

The North Dakota Agricultural Experiment Station consists of seven Research Extension Centers placed strategically throughout the state, the Agronomy Seed Farm in Casselton and the Main Station in Fargo. We work to develop techniques and technologies to enhance the production and use of food, feed, fiber and fuel from crop and livestock enterprises

NDSU Extension empowers North Dakotans to improve their lives and communities through science-based education. We serve all people of the state through our 52 county and Fort Berthold offices, seven Research Extension Centers and the main campus in Fargo.

If you would like more information on the programs in this publication, contact the faculty and staff listed. If you would like more information about our other programs or have questions, comments or suggestions, please contact me.

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NDSU Giving Day - November 30

What is NDSU Giving Day?

NDSU Giving Day is a 24-hour, online fundraising event that brings together NDSU alumni, students and many other supporters of the University. It is a oneday opportunity to make a lasting impact at NDSU by making an online donation at ndsugivingday.com.

Funds raised during **NDSU Giving Day** will support student scholarships and a wide range of educational priorities across the university.



Why should I give to North Dakota State University?

Your generosity will support educational priorities that set NDSU students apart and help prepare them for real-world success. NDSU Giving Day donors also support scholarships, making an NDSU education possible for talented students who are limited only by their financial resources.

What areas of the university can I support?

The NDSU Giving Day website will offer many funding options among the University's colleges, departments and programs. Giving is easy and a great way for donors to support areas of the university that they are most passionate about, like the NDSU College of Agriculture, Food Systems, and Natural Resources. To learn more, visit www.ndsugivingday.com.

ndsugivingday.com