

For the Land and Its People

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Dreamers. Doers. Industry movers and shakers. Change makers. Sometimes people or teams of people come along with the vision and heart to make a real difference in their chosen field. They identify a need and then work to fill the gap. This issue of For the Land and Its People highlights some of the people and programs who have made a difference in the College of Agriculture, Food Systems, and Natural Resources (CAFSNR); North Dakota Agricultural Experiment Station (NDAES); and NDSU Extension.

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



A new endowed professorship at North Dakota State University (NDSU) will ensure that soybean breeding research continues to thrive in North Dakota.

During the Northern Corn and Soybean Expo held at the Fargodome, the Ted Helms Endowed Professorship at NDSU was announced by Greg Lardy, NDSU vice president for Agricultural Affairs together with Joel Thorsrud, Hillsboro, North Dakota, soybean farmer and Ted Helms, retired NDSU soybean breeder.

As NDSU's soybean breeder for 33 years, Helm's work made it possible for soybeans to grow from a minor crop to the production of over seven million acres in North Dakota in 2021. During his time at NDSU, 40 varieties of soybeans were developed.

"One of my most important goals was to always serve the family farmers to give them more value and to help farmers with their bottom-line profitability," says Helms. "I am very honored. The most important thing is that this program is going to be supported and farmers are going to continue to be well-served by the NDSU research program."

"Dr. Helms' varieties have enabled farmers to thrive in spite of the short growing season, withstand extreme climate settings from drought to flood and harvest a crop even in the tough years," says Kendall Nichols, North Dakota Soybean Council director of research.

Joel Thorsrud established a legacy gift to endow the soybean breeding position at NDSU in honor of Helms. Thorsrud, a 1973 NDSU alumnus, wanted to make a legacy gift to support NDSU agriculture and the soybean program. After meeting with NDSU agriculture leadership, Joel learned that the most impactful gift he could make was to endow a professorship.

"When this legacy gift is realized, it will support a faculty member in the NDSU Department of Plant Sciences in soybean breeding and allow NDSU to stay at the forefront of soybean breeding," says Lardy. "It will provide funds that will expand research capacity and teaching methodologies to create superior soybean varieties that will benefit North Dakota farmers, as well as enrich the academic experience for hundreds of students in the future."

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Endowed Professorship Helps Soybean Research to Thrive



The Ted Helms Endowed Professorship at NDSU will ensure that soybean breeding research continues to thrive in North Dakota. Pictured left to right are Ted Helms, retired NDSU soybean breeder; Joel Thorsrud, soybean farmer; and Greg Lardy, NDSU vice president for Agricultural Affairs. (Photo by North Dakota Soybean Council)



CREC Continues to Study Diverse Uses of Winter Rye

From using rye seed of unknown origin to leading the development and release of two different winter rye varieties in the last 10 years, Steve Zwinger, research agronomy specialist at the Carrington Research Extension Center (CREC), has been a busy guy.

Zwinger helped develop and release ND Dylan rye variety in 2016, after more than 20 years since the last time NDSU had developed a rye variety. Named for Zwinger's late son Dylan, a young man who loved the land, ND Dylan has proven to live up to its characteristics.

A high yield and very good winter hardiness make the ND Dylan variety ideal for use in North Dakota. The combination of early season vigor scores and winter hardiness show ND Dylan's potential for use as a grain, cover or forage crop. This variety is tall, has good straw strength and is medium-late in its maturity.

From 2007 to 2018, Zwinger and fellow scientists and researchers at the CREC worked to develop and release the ND Gardner rye variety.

Tall, early maturing, early season vigor and winter hardiness are the main traits that make ND Gardner desirable for cover crop and forage use.

"Though a minor crop, winter rye tends to require less inputs to raise and performs well under low fertility and moisture conditions," says Zwinger. "We are really seeing it gain popularity as reliable cover for erosion control."

These traits are the reasons for the increasing popularity of rye being used in the rotation as a grain, forage or cover crop.

Since the development of these two varieties, the CREC has continued to grow foundation seed for the NDSU Foundation Seedstocks program. The production of adequate foundation seed is an important step in providing farmers with improved varieties from NDSU plant breeding programs.

Because of its increased use by farmers in the state and its versatility as a grain, forage or cover crop, the CREC is using rye in multiple agronomy research studies under both conventional and organic management.

"Because of winter rye's diversity, it really brings together an interdisciplinary team of agronomists, weed scientists, soil scientists, plant pathologists and animal scientists to understand it's uses and then to take that knowledge to farmers," concludes Zwinger.

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Dr. Larry Corah has been one of the most influential people in the beef industry in the last 50 years. One of his most lasting effects, though, will be the influence he has had in training future generations of beef leaders.

Beef Industry Leader Honored as NDSU Agriculture Distinguished Alumnus

Growing up on a small family farm outside Adams, North Dakota, Larry Corah did not know that a college education and more than 50 years of leadership in multiple segments of the beef industry was in his future.

Because of his leadership and its lasting effects, Corah has been named the 2021 NDSU College of Agriculture, Food Systems, and Natural Resources Distinguished Alumnus.

After graduating from NDSU in 1964 with a major in animal science, he began his early career as a county NDSU Extension agent, later digging into the feedlot side of the beef industry for his master's degree in ruminant nutrition at Michigan State University.

After a stint in Australia, working to develop their feedlot industry, Corah returned to the U.S. in 1970 to finish his doctorate at the University of Wyoming in bovine reproductive physiology.

In 1974, Corah and his family moved to Manhattan, Kansas. During his time working as a state beef specialist for Kansas State University (KSU), Corah delivered more than 1,200 presentations to beef producers in Kansas, as well as 39 other states and six Canadian provinces.

In addition to his Extension work, he recognized the importance of integrating research into his role. Focusing his research on the nutritional aspects of a developing beef animal led to the supervision of eight doctoral students and 22 master's degree students, along with 65 peer-reviewed publications. Corah also saw the value of involving people with different backgrounds, skill sets, thoughts and ideas to address issues facing the beef industry. His peers recognized him for his Extension work by giving him the national American Society of Animal Science Extension Award in 1987.

After retiring from KSU in 1997, Corah joined the National Cattlemen's Beef Association (NCBA) as the director of production systems. While at NCBA, Corah grew the popular Cattlemen's College program attendance from 150 to more than 1,000 participants, making it one of the largest beef educational events.

Never one to shy away from a challenge, Corah assumed the role of vice president of Certified Angus Beef (CAB), LLC., in 1998. His initial responsibilities focused on creating new supply chains to ensure supply for the largest branded beef program in the U.S. During his tenure, CAB grew from selling 411 million pounds of beef in 1998 to more than one billion pounds before his retirement.

Currently, Corah teaches the senior level beef systems class at KSU. He also serves in a consulting role with Select Sires to help develop a supply chain for the emerging use of beef genetics on dairy cattle.

"Dr. Larry Corah has been one of the most influential people in the beef industry in the last 50 years," says Marc Bauer, NDSU Department of Animal Sciences associate professor. "One of his most lasting effects, though, will be the influence he has had in training future generations of beef leaders."

"I credit my North Dakota heritage and education at NDSU as the key to any success I have achieved," says Corah. "NDSU took a struggling teenager and developed him into someone who could be an influencer in the beef industry."

To help young people achieve their goals, Corah contributed to scholarships through the NDSU Foundation.

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(Photo courtesy of Certified Angus Beef LLC)

I credit my North Dakota heritage and education at NDSU as the key to any success I have achieved. NDSU took a struggling teenager and developed him into someone who could be an influencer in the beef industry.

NDSU Extension Expands Reach to Equine Enthusiasts

Whether riding for recreation or using for ranch work, horses are an important part of many North Dakotans lives. With approximately 29,000 horses in the state, the feeding, care and management of these horses is often at the forefront of their owners' minds.

After multiple requests from horse owners, a group of NDSU Extension agents and specialists hosted the first NDSU Extension Horse Management Workshop in 2015. The group then used the participant feedback from the in-person meetings and expanded their workshop to include online learning opportunities.

"In 2020 and 2021, we've offered both a spring horse management series and winter horse management series," says Mary Keena, NDSU Extension livestock environmental management specialist based at NDSU's Carrington Research Extension Center. "We also recognized that many horse owners work during the day, so offering the webinars over the lunch hour and making them available to watch later was part of the appeal."

Topics for the workshops have included transitioning your horse from winter to spring and summer feeding, facilities management, grazing strategies, manure and nutrient management, managing your horses during a drought and the basics of conditioning for performance events.

"Due to COVID-19 in 2020, the webinars were only offered online," says Paige Brummund, NDSU Extension – Ward County agent. "But that didn't slow down participation. The webinars were viewed more than 1,100 times on YouTube."

In 2020, 252 people from North Dakota and Minnesota registered for the webinar series, as well international participants from Australia, Canada, France, Germany and Peru.

In 2021, the Extension group offered an in-person horse management series in both the spring and winter that was attended by 25 people, with more than 372 views online.

One participant stated that due to the program they have changed their pasture size, rotation schedule and let one over-grazed area rest for the year.

Another participant shared that they have changed their parasite control strategies to help reduce parasite resistance because of what they learned during the webinars.

In 2022, the series is returning with education on four new topics: mortality management, geriatric horse and foal care, hay management and bedding management.

"Horses can be vital partners in agricultural life, equine-assisted therapy and as companion animals," says Keena. "Our job is to provide their owners' opportunities for learning, so that they can continue to enjoy and care for them."

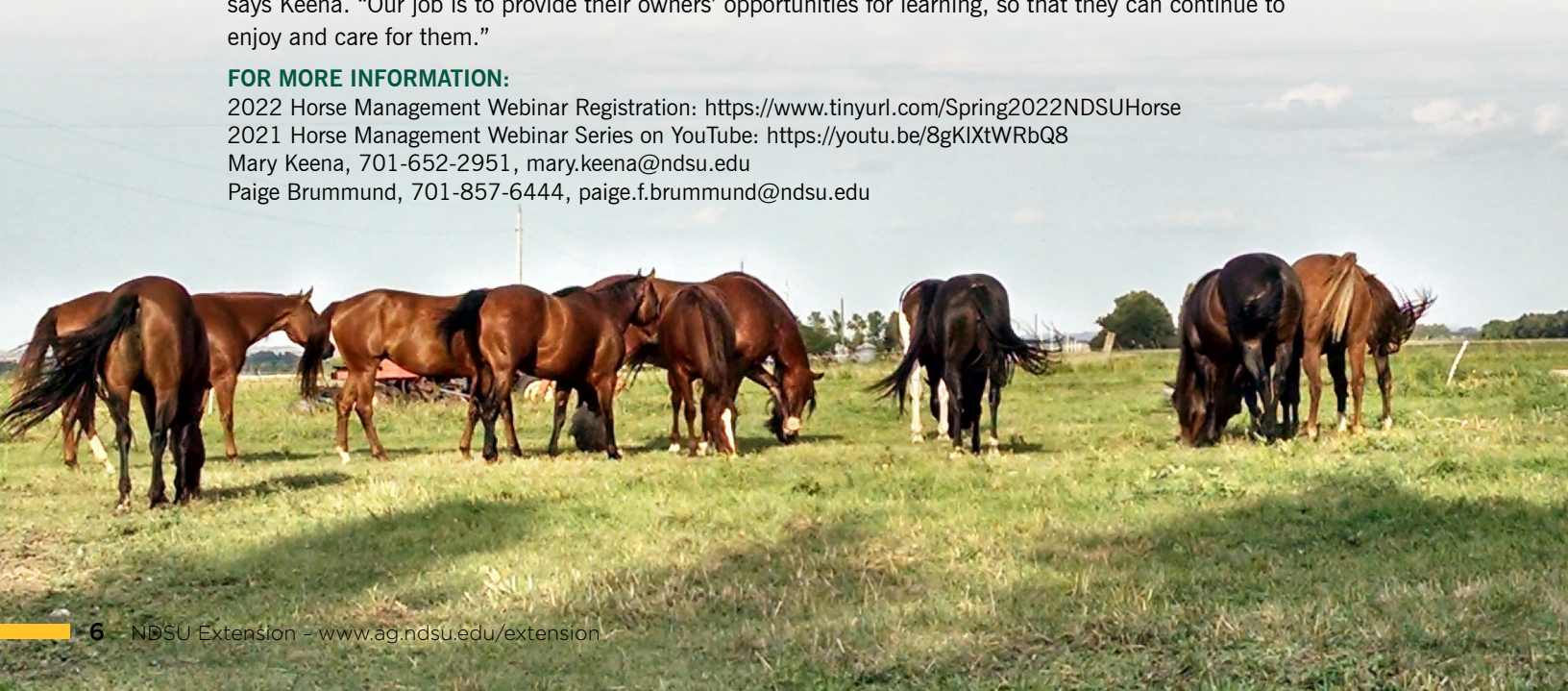
FOR MORE INFORMATION:

2022 Horse Management Webinar Registration: <https://www.tinyurl.com/Spring2022NDSUHorse>

2021 Horse Management Webinar Series on YouTube: <https://youtu.be/8gKIXtWRbQ8>

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NDSU Extension Supports Local Food Entrepreneurs

During the pandemic, many rural schools and grocery stores in North Dakota were impacted by food supply chain issues, highlighting the need for alternative sources of food.

In light of food supply disruptions, Jodi Bruns, NDSU Extension's leadership and civic engagement specialist, partnered with Extension sheep specialist Travis Hoffman to create a guide for farmers, ranchers, local grocery stores and others looking to buy or sell local food, including produce, eggs and meat. The guide busts common myths about purchasing and selling local food with the latest guidance from the North Dakota Department of Health and the North Dakota Department of Agriculture.

"Local foods not only ensure we have a safe, reliable, close food source, but local growers also contribute substantially to the local economy," says Bruns.

In some areas, local farmers and ranchers were able to help meet gaps in food supply. Bruns has worked with a number of other local food entrepreneurs during the startup phase of their businesses, connecting them with the resources and markets.

Larry Schumacker, who owns Larry's Hydro Lettuce in Fullerton, North Dakota, credits Bruns and NDSU Extension with helping him move his business forward.

Using hydroponic technology, Schumacker grows a variety of lettuce year-round and makes weekly deliveries to LaMoure Public School, Enderlin Area Schools and the BisMan Community Food Co-op, in addition to area restaurants.

"At each step of my business, Jodi has helped me make connections to research, business planning and markets I didn't know were available," says Schumacker. "NDSU Extension has been instrumental in moving the local foods movement forward by getting factual information out to schools and other institutions who had been told they couldn't buy produce or other food from local sources."

Bruns also partners with local food organizations including the North Dakota Local Foods Development Alliance, North Dakota Rural Grocers Initiative and the Multi-state Rural Grocers.

FOR MORE INFORMATION:

NDSU Extension Guide for Buying and Selling Local Food - <https://www.ag.ndsu.edu/publications/community-development/guide-for-buying-and-selling-local-food>

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NDSU Extension has been instrumental in moving the local foods movement forward.

Visit www.ndsu.edu/vpag/newsletter
to subscribe to For the Land and Its People e-newsletter.

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 student-faculty 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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Sewing and Coding Camp Increases Interest in STEAM

What do you get when you combine conductive thread, LED lights and a holiday theme? If you guessed a light-up holiday sweatshirt designed and created by North Dakota 4-H'ers, you would be right!

For a group of 4-H'ers who are interested 4-H STEAM (Science, Technology, Engineering, Art and Mathematics) activities, a recent sewing and coding virtual workshop was the perfect place to work on their skills.

Hosted by Lindsey Leker, North Dakota 4-H Youth Development specialist, two virtual sewing and coding camps were held in December of 2021.

More than 40 4-H'ers, ages 11 to 15 years old, signed up for the virtual camps and were then sent the supplies needed to participate.

Leker taught the basics of circuitry, design and coding over Zoom and the 4-H'ers then designed and sewed light-up holiday sweatshirts and bookmarks.

"This was such a fun way to introduce the basics of coding to youth and for them to complete a project that they could wear or show off to friends and family around the holiday season," says Leker. "But more importantly than that, I hope it was a springboard into more complex projects and possibly the catalyst for careers in the STEM field."

Malory Kemp, a 4-H member from Helping Hands 4-H Club in Pembina County, plans to showcase her light-up sweatshirt at the North Dakota State Fair.

"It is easy to get frustrated with the circuit shorting out if you are not careful, but when you finally find success and have the lights working, it feels very satisfying," says Kemp. "The most fun part has been teaching others at Pembina County's Project Expo about how to use the circuits and LEDs to create their own light-up fashions."

Leker plans to offer more virtual sewing and coding camps in the summer of 2022. The North Dakota 4-H Camp in Washburn, ND, also is offering an in-person STEM camp for ages 10 to 15 years on July 17-21.

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<https://www.ndsu.edu/agriculture/extension/extension-topics/north-dakota-4-h-youth-development>, or find and follow the North Dakota 4-H STEM page on Facebook.