

For the Land and Its People



Fall 2024

When a committed group of individuals come together to solve unique challenges with unique solutions, real impact is made. This issue of For the Land and Its People focuses on how the people of NDSU Agriculture are making a difference in the communities they serve through research, heartfelt care and outreach opportunities. This focus on community-driven impact is just one of the core values that NDSU Agriculture uses to measure our growth. I invite you to read more in the following pages.

Enjoy.

Greg Lardy

Joe and Norma Peltier Vice President for Agriculture

NDSU NORTH DAKOTA
STATE UNIVERSITY

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

Hettinger Research
Extension Center
supports building of
Theodore Roosevelt
Presidential Library
through



Native Plant Project

Theodore Roosevelt is remembered as the “conservation president.” As president, he began the United States Forest Service which helped establish 150 national forests, 55 federal bird and game reserves, and five national parks. Roosevelt’s conservation efforts protected 230 million acres of public land.

The 26th U.S. President came to North Dakota to hunt in the 1880s and would spend a lot of time in the Badlands of the state, stoking his love for environmental causes. Roosevelt considered Elkhorn Ranch, located north of Medora, North Dakota, his home ranch.

His environmental passion and legacy are reflected in the Native Plants Project being established as part of the Theodore Roosevelt Presidential Library which is being built west of Medora near the Theodore Roosevelt National Park. It’s a project sponsored by the library, that collaborates with North

Dakota State University and Resources Environmental Solutions (RES) to help restore and enhance the ecological diversity of the surrounding landscape and provide seeds for landscaping and construction of the library’s living native prairie roof..

Ben Geaumont, range and wildlife scientist at the Hettinger Research Extension Center (HREC), started working on the project in 2022. Using seeds collected from within 50 miles of the library by RES personnel, Geaumont propagated many native species into seedlings. These seedlings will be the source of additional seeds.

The roof construction will require a large amount of native seed, and though most of it will be collected from the wild by RES and volunteers, for certain species more seed is needed than could be collected in the wild. As a result, nursery beds were created to be used for seed production. The HREC received its first shipment of plants from RES

in spring 2023 with a second cohort of plants arriving in 2024 for a total of over 60,000 seedlings belonging to over 30 native forb and grass species.

“We spend a lot of time hand weeding, and because it seldom rains in western North Dakota, keeping water on the young plants has been critical,” Geaumont says.

Although the plantings are relatively new, many species are already producing seed especially those planted in 2023. The seed grown at the HREC will be used by RES to grow several hundred thousand seedlings to be placed on the roof beginning in spring 2025.

“While the project will be seen by many tourists at the Roosevelt Library and help push the message of grassland conservation, it is the potential impact the project could have on North Dakota’s agriculture and landscape on a larger scale that excites me,” Geaumont says.



Racks of seedlings ready to plant (left) and smooth blue aster seed in the dryer (right).

The biodiversity of the North Dakota grasslands has significantly decreased over the past few decades as grasslands have been converted into farmland, invaded by non-native species and heavily grazed by cattle. Grassland restoration is fundamental to long-term grassland conservation and the importance of local native ecotypes to restoration is still not fully understood though their importance to ecological functioning is slowly being realized. The establishment of the Native Plant Project and commitment on behalf of the Presidential Library is a huge step towards developing local native ecotypes for many important plant species found in the western Dakotas.

“My goal is to have more native seeds from multiple species from the western Dakotas and Montana,” Geaumont says. “Preserving this genetic material, and getting it to the point, where it’s not just at the library but available for use on restoration projects

throughout the west would be great. The demand for native seed and local ecotypes is expanding and overall may provide an opportunity for farmers as well.”

While Geaumont’s long-term focus is on grassland conservation across the Dakotas and eventually bringing some of this seed into production, the immediate goal is to do all he and his team can do to maximize seed production on the current nursery plots because once the roof is complete there are still multiple gardens and restoration projects to be completed at the library site that will require a seed source well into the future.

“Dr. Ben Geaumont’s dedication to the Native Plant Project showcases the profound impact of hands-on stewardship,” said Amy McCann, community relations director for the Roosevelt Library. “His tireless efforts – planting, weeding, harvesting – bring our restoration vision to life.

By collaborating with the library and contractors, he is not only growing local genetic material that is not commercially available elsewhere but also cultivating a lasting legacy of sustainability and ecological balance.”

FOR MORE INFORMATION:

Theodore Roosevelt Presidential Library Native Plants Project – www.trlibrary.com/project/native-plants
Ben Geaumont, 701-567-4323, Benjamin.geaumont@ndsu.edu

CULTIVATING A LASTING LEGACY OF SUSTAINABILITY AND ECOLOGICAL BALANCE

NDSU Extension specialists are rooted in community

In many regions of North Dakota where fields stretch for miles and small towns weave their way through the landscape, NDSU Extension specialists serve as resources and connectors of the Extension network to local communities.

“Our county NDSU Extension agents are the lifeblood of NDSU’s land-grant mission, serving as an extension of NDSU in every county in North Dakota,” says Lynette Flage, NDSU Extension associate director. “But what some people may not know is that we also have many NDSU Extension topic area specialists living in communities across North Dakota, not just working from NDSU’s Fargo campus.”

NDSU Extension specialists provide technical expertise and lead programs of statewide concern in agricultural and natural resources, family and community wellness, and 4-H youth development topics. They are integral in supporting Extension agents with research-based information.

Lacey Quail, the NDSU Extension livestock systems specialist at the North Central Research Extension Center near Minot, North Dakota, highlights the critical importance of direct, personal connections in her work.

“I get to have direct contact with producers in the area, which then informs the recommendations I provide to producers throughout North Dakota,” Quail explains. “Instead of learning about conditions or issues second-hand, I get to interact with producers personally.”

Living in the same environment as the producers she serves allows Quail to experience the challenges they face, whether it’s drought, poor grazing conditions or disease outbreaks. This firsthand knowledge enables her to provide tailored recommendations. Her role goes beyond simply offering information—Quail connects new producers with more experienced peers, fostering a network where they can learn from one another.

Similarly, Jan Stankiewicz, NDSU Extension community health and nutrition specialist and tribal liaison, based in Bismarck, North Dakota, emphasizes the unique opportunity to connect with people on a deeper level by living where she works.

Stankiewicz grew up in a small town in northeast Montana that instilled in her the value of involvement and building relationships.

“I bump into people at community events, sporting activities or the market and get to know them and meet their families,” she shares. “I love hearing about Extension programs or projects that are working in my community and exploring opportunities to see what might work elsewhere. I am able to not just see it from an Extension or work perspective, but I live it and feel it as a community member or parent, and that certainly is motivating and empowering.”

Through their dedication, these specialists ensure that knowledge is shared, networks are built and communities are empowered to thrive.



LACEY QUAIL



JAN STANKIEWICZ



ANDREA BOWMAN

Andrea Bowman, NDSU Extension leadership and civic engagement program coordinator, loves living in Bowman County, with its strong agricultural foundation and ranching heritage. “My job is about building community leadership, so every organization and city I work with becomes a community to me,” Bowman explains. “I find fulfillment in helping local organizations build skills and overcome challenges. Going back to groups and seeing how their leaders have grown makes my heart happy and motivates me to be better in everything I do.”

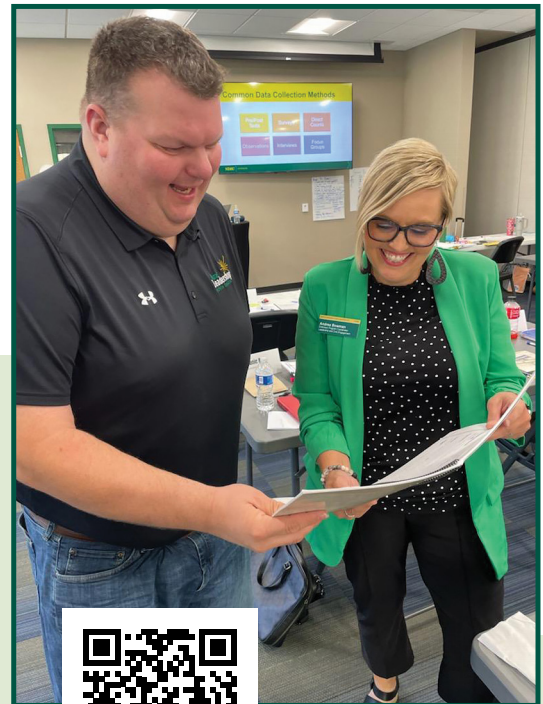
By living, working and engaging directly within the communities they serve, Extension specialists are uniquely positioned to foster meaningful change. They are not outsiders offering theoretical solutions—they are neighbors, peers and leaders who understand the intricacies of their local areas.

“We believe the work of our specialists and agents is a powerful testament to the importance of NDSU Extension in sustaining and enriching rural communities across North Dakota,” shares Flage. “Through their dedication, these specialists ensure that knowledge is shared, networks are built and communities are empowered to thrive.”

FOR MORE INFORMATION:

<https://www.ndsu.edu/agriculture/extension/about-ndsu-extension>

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www.ndsu.edu/employment/

Be a part of NDSU Extension

NDSU Extension is on the lookout for passionate individuals to join our team and make a meaningful difference. Our employees are engaged in purposeful work that positively affects people’s lives and communities. We measure our success by the impact we make, building trusted relationships and fostering social connections within the communities we serve.

If you or someone you know is looking for a fulfilling career, explore our opportunities online and join us in making a difference.

OUR MISSION: To empower North Dakotans to improve their lives and communities through science-based education.

CAFSNR's Department of Microbiological Sciences fosters community



MARLEY LUND-PETERSON

New full-time recruiter connects with prospective students

Blaine Novak hit the ground running this summer after accepting the newly created position of recruitment coordinator for the NDSU College of Agriculture, Food Systems, and Natural Resources. He has been actively visiting high school classrooms, college fairs, 4-H and FFA events, and other venues to connect with prospective students. Between visits, he has been developing programming and materials to promote the college's academic programs and student organizations. He works closely with the NDSU Admissions Office to ensure interested students can take the next steps to visit campus, meet with faculty or apply for admission.

Student recruitment is not new to Novak, who played a leading role in recruitment efforts for the NDSU Department of Animal Sciences where he was a lecturer since 2020.

An NDSU alum, Novak holds both a B.S. and M.S. in animal sciences.

Novak's position is funded by the earnings of the Joe and Norma Peltier NDSU Vice President for Agriculture endowment.

Interested students can visit www.ndsu.edu/agriculture/academics to schedule a visit or learn more about our degree programs.



BLAINE NOVAK

outreach and love of science

Students at Central Cass High School this year took a deep dive into microbiological sciences after participating in NASA's Plant the Moon challenge with assistance from NDSU's Department of Microbiological Sciences in the College of Agriculture, Food Systems, and Natural Resources.

Participants in the annual global science experiment and educational research challenge work to see who can grow the best vegetable crops in lunar or Martian soil. The research findings from student teams help scientists understand how to feed future NASA missions, while exposing high school students to the research process.

Barney Geddes, NDSU assistant professor and Richard and Linda Offerdahl Faculty Fellow in microbiology, has partnered with surrounding high schools for the competition since 2021. Marley Lund-Peterson, a microbiological sciences graduate student, took over as the lead coordinator of the project this spring.

In addition to putting the scientific method into practice, Lund-Peterson said the project is a great way to get students introduced and engaged in science.

"Participating in Plant the Moon over the last two years has helped me see how impactful our outreach initiatives are for our surrounding community," Lund-Peterson says. "Multiple students have expressed interest in science and/or microbiology after participating in the competition."

Cady Wang, a student at Davies High School in Fargo, participated in the Plant the Moon challenge as a freshman. After the completion of the project, she reached out to Geddes to inquire about working in his laboratory at NDSU. Now a senior, she has spent two years in the lab helping to research how plants interact with their microbial communities. In 2023, Wang worked to develop her own research project, going on to win international science awards and presenting her research during the NDSU Explore research day.

This summer Wang was accepted into the Research Science Institute at the Massachusetts Institute of Technology (MIT), an intensive five-week program where 100 of the world's most accomplished high-school students conduct individual research projects and immerse themselves in the research process.

"Working in the Geddes Lab at NDSU has played a significant role in fostering my love of sustainability research," says Wang. "Not just sustainable agricultural practices, but policies and systems that protect our planet."

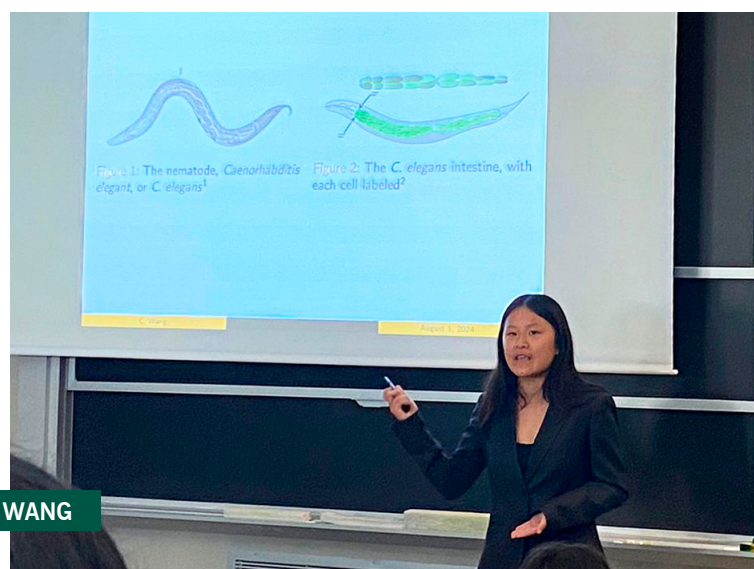
In addition to giving area high schoolers valuable hands-on experience in science, Lund-Peterson said the project highlights the importance of outreach in the community.

"Engaging with our surrounding community isn't just an added task for scientists, it's a core responsibility. Just as crucial as our work inside the lab, outreach fosters understanding, collaboration and trust, empowering us to create meaningful impact beyond the boundaries of our research," Lund-Peterson says.

(Story adapted from NDSU University Relations)

FOR MORE INFORMATION:

<https://www.ndsu.edu/agriculture/academics/academic-units/microbiological-sciences>



CADY WANG

NDSU

AGRICULTURE

North Dakota State University
Dept 7520, PO Box 6050
Fargo, ND 58108-6050

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.

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

Greg Lardy

Joe and Norma Peltier Vice President for Agriculture
NDSU Dept. 7520, 314 Morrill Hall, Box 6050
Fargo, ND 58108-6050
701-231-7660
gregory.lardy@ndsu.edu

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8 www.ndsu.edu/agriculture

NDSU Giving Day - December 3-4

What is NDSU Giving Day?

NDSU Giving Day is an online fundraising event that brings together NDSU alumni, students and many other supporters of the University. It is an 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.

HAVE YOU HEARD? SPREAD THE WORD!

GIVING DAY 
DEC. 3-4, 2024

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