"The farmer has to be an optimist or he wouldn't still be a farmer." - Will Rogers

I am continuously amazed by the ingenuity, perseverance and resilience of the great American Farmer and Rancher! There are not many professions where we have so little control over so many variables that can impact our success, or failure, than that found in the professionals encompassing farming, ranching and natural resource conservation. From the impacts of Mother Nature to those policies that influence our markets, our South Dakota farmers and ranchers have seen some of the most challenging growing seasons in recent history. In spite of all the challenges and setbacks experienced this past year, there has been a tremendous demonstration of resilience and hope throughout our industry and communities. As I have board many times, "I can't wait to see 2019 in the rearview mirror," followed by optimistic anticipation of what 2020 will hold for us. I am proud of the resilient nature of the South Dakota farmer and rancher, and know that South Dakota State University and the College of Agriculture, Food and Environmental Sciences is here in its many capacities to partner with you as we enter into the coming growing season.

Our land-grant universities were uniquely created to serve the three important missions of teaching, research and Extension. These three missions are intertwined like a three-stranded rope, all working together to provide a stronger product than the individual strands alone. There are times when one of the strands needs to take center stage to provide the support that is necessary at a particular time. There is the constant need to provide graduates who are exceptionally well educated to meet the workforce needs of the day, research conducted to address long range needs of our industries and to also meet the immediate needs of a current crisis or challenge, and then there are the times when we need to marshal our resources to provide the outreach and support that our stakeholders and communities need to weather a storm. This past year shines a particular light on the latter, where we have so many individuals and communities hurting from the challenges that came with 2019. This edition of Growing South Dakota highlights just some of the many ways that SDSU, the College of Agriculture, Food, and Environmental Sciences, and especially our SDSU Extension programs not only transfer knowledge gained from agricultural researchers but also provide support and relief to assist our many farmers and ranchers through the challenges that 2019 has thrown at us.

The very wet fall of 2018 set the stage for what was to become an extremely challenging 2019 growing season. The beginning of 2019 greeted us with hard freezing weather and excessive precipitation in the form of snow that lasted through a protracted winter. Once spring arrived, we experienced three extensive flooding events throughout the state. The first flooding event occurred with the now infamous "Bomb Cyclone" that hit in the middle of March dumping heavy snow on the north and giving southeastern South Dakota a lot of rain. Much of this occurred on top of frozen soil that resulted in major flooding throughout the area. Rain seemed to fall continuously throughout the spring and summer leading in a second flooding event for central South Dakota in late May followed by a third flood in early July for the Madison area. Many new precipitation records were set in 2019. Our Extension teams pulled together materials and created resources and programs to assist those being impacted by these events. Some of the resources were created to respond to the many immediate needs of our citizens, while others were created to provide support to the many long-term, chronic challenges that were being created by difficult growing and harvest seasons and the additional impacts of difficult market situations. As a result of the extreme weather that we experienced in South Dakota, there were approximately 3.95 million total prevented planted acres (17 times as many acres as 2018), the most in the entire nation.

As would be anticipated, market and weather related challenges were identified as two of the top stressors for our state's producers. Our Agricultural Economic Extension teams responded to the needs of our farmers and ranchers by providing risk management, marketing and budgeting information and resources. In addition to these financial resources that our economists have provided, our Extension Rural Behavioral Health Team created many programs to address the acute and chronic impacts that these many challenges have had on the mental health and well-being of our farmers and ranchers. We have created the "Weathering the Storm" program that trains individuals on how to work, with family members who may be dealing with excessive stress. Another program is "Communicating with Farmers Under Stress" that provides tools for counselors, ag-business and community members on how to recognize and aid those dealing with stress. Along with stress in our agricultural communities requires the efforts of many individuals and organizations throughout the state and nation. In September 2019, SDSU Extension partnered with the South Dakota Counselors Association to host a three-day South Dakota Farm and Ranch Stress Summit to provide information on how to provide support to individuals dealing with stress. SDSU Extension has also been providing "Mental Health First Aid Training" programs throughout the state to share this evidence-based public education and prevention tool to improve the public's knowledge of mental health and substance use problems, and how to connect people in need to appropriate care.

The SDSU College of Agriculture, Food and Environmental Sciences, and especially SDSU Extension teams are here to help individuals and communities thrive during challenging times. The people and entities that make up the agricultural communities of South Dakota create a very special family that has banded together to support each other as we respond to these challenging times. As I stated earlier, I am so proud of the resilience and determination of the South Dakota Farmer and Rancher as we have faced a challenging 2019. As we put 2019 into the memory books, I wish you all the very best for 2020 as everyone in the SDSU College of Agriculture, Food and Environmental Sciences looks forward to working with you to create a prosperous and less stressful new year.

All the Best! Go Jacks!

Contact John Killefer at John.Killefer@sdstate.edu

FROM THE DEAN
JOHN KILLEFER

GROWING SOUTH DAKOTA
MANAGING EDITOR
Lora Berg
DESIGNER
Andrea Schubloom
WRITERS/CONTRIBUTORS
Sydney Meyer, Andrea Schubloom, City of Brookings, POET, Corn Growers Group
PHOTOGRAPHY CONTRIBUTORS

COLLEGE LEADERSHIP
John Killefer
Dean of Agriculture, Food and Environmental Sciences
Bill Gibbons
Interim Associate Dean of Research and Interim Director of South Dakota Agricultural Experiment Station
Don Marshall
Associate Dean of Academic Programs
Karla Trautman
Director of Extension
Lora Berg
Director of Marketing and Communications

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United States Department of Agriculture Panel at Governor's Development Program Director
- From the Director of Extension
- South Dakota Animal Disease Research and Diagnostic Laboratory
- SDU Extension
- The Nebraska Agricultural Research Foundation

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ON THE COVER: Farmland affected by 2019 flooding and increased rainfall. Photo courtesy of Greg Latza.

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SDSU Extension
Managing Education Lora Berg
Research and Diagnostic Laboratory Ribbon Cutting Ceremony
The South Dakota Animal Disease Research and Diagnostic Laboratory (ADRDL) held a ribbon cutting ceremony September 6, on the South Dakota State University campus to celebrate the upcoming official opening of the new facility in November.

"Today’s ribbon cutting represents a renewed commitment to the ongoing mission of this lab,” said Larry Rhoden, Lieutenant Governor of South Dakota. “That commitment ensures that the scientists here who serve the people of South Dakota and the region have the tools they need to more safely identify diseases and conduct important research."

The $58.6 million expansion and renovation will ensure the facility meets federal standards and provides more space to accommodate new technologies. The new facility features a Biosafety Level 3 space to contain dangerous pathogens, offers greater security against bioterrorism as well as upgraded air, water and electrical systems. A drive-up window for dropping off samples was also added to provide clients with easy access to the lab and to enhance biosecurity.

"These are exciting times as we recognize the completion of a goal that we’ve had for a long time to modernize our veterinary and diagnostic research facility,” said South Dakota State Veterinarian Dustin Oedekoven.

Performing approximately 500,000 tests per year, the new 80,000 sq. ft. lab is made up of sections for bacteriology, clinical pathology and parasitology; DNA sequencing and bioinformatics; serology; food safety microbiology; virology; histopathology; molecular diagnostics; extension and outreach, specialized research testing, and research. Following the move into the new ADRDL, the existing Veterinary and Biomedical Sciences building will be renovated for teaching and research purposes.

"This incredible new facility will provide hands-on training for students,” said Barry H. Dunn, President of South Dakota State University. “The experience they gain will serve them well in attaining careers in veterinary medicine, medical technology, human medicine and other science, technology, engineering and mathematical careers."

Originally built in 1967, upgraded in 1993 and newly renovated and expanded in 2019, the Animal Disease Research and Diagnostic Lab has provided the state of South Dakota with critical research and diagnostic support to protect the citizens and the livestock industry in the state and region from disease outbreaks for more than five decades.

"The work that’s conducted here at the lab can be briefly summarized as protecting animal and public health and food safety. Because of the economic impact of our animal agriculture industry as well as the critical importance of public health and food safety, the work that happens here at the lab impacts all of us either indirectly or directly,” said Oedekoven.

"This achievement of increased efficiency and service has been made possible through the continued support and cooperation of many groups,” said John Killefer, South Dakota Corn Endowed Dean of the College of Agriculture, Food and Environmental Sciences at South Dakota State University. “This was really a team effort.”

Supporters of the project include but are not limited to South Dakota’s Ag Unity, the South Dakota Association of Cooperatives, the State Veterinarian, the South Dakota Animal Industry Board, the South Dakota Veterinary Medical Association, members of South Dakota’s commodity groups, legislative leaders and the governor’s office.

"As we work to implement policies that are friendly toward producers and help support our state’s top industry, we’re proud to partner with labs like this as we look to lead the nation in innovative care and groundbreaking research,” said Rhoden.

Andrea Schubloom
FROM THE DIRECTOR OF EXTENSION
KARLA TRAUTMAN

I grew up on a small farm that was an integrated livestock and crop operation. We grew it all. There was a feedlot full of cattle, a pasture full of stock cows and a herd of 30 dairy cows. There were also the barns that held the pigs, sheep, chickens, ducks and geese. We grew acres of corn, soybeans and oats. There were even a few horses that were used to check on the cows in the pasture! Every day was governed by the routine of morning and evening chores. As a young child, my job was to gather the eggs from the chicken coup. While the chores became more complex as I grew older, the value of the farm and the importance of those chores to the successful functioning of the farm were not lost on me.

I can look back today and be amazed at the diversity of that farm. Think of all the moving parts that it took to keep it going. After all, the technology to make it "all tick" wasn’t nearly at the level it is today. It makes you wonder how a farmer even managed to accomplish what they did!

At the time, the diversity of the farm was just as much about “the way you did it” as it was about the availability of technology to manage it. Today, technological innovations are the foundation for how agriculture continues to feed the world population while providing solutions to societal challenges. It has also been a resource during challenging times – like those we have faced in 2019 at the hands of Mother Nature. Ultimately, technology is a tool and a significant one at that. The differential is the human interface. How can we focus the use of technology and innovation to answer the age old questions of “what, when, why and how” as it applies to agriculture, family and community? How can innovations help or hinder our ability to solve problems? Why is it important? What will we do with it? When will it be useful? How will it be useful? Why does it matter? How will it matter? What difference will it make?

This edition of Growing South Dakota highlights the work of SDSU Extension in bringing research-based knowledge to the citizens of South Dakota in the best of times... and the worst of times. Our professionals value the importance of building relationships with people, hearing about their needs and then drawing from research to provide knowledge and innovative solutions. Their efforts tell a story of listening and caring – with the intent to learn about collective concerns and needs and then using the innovations of research and knowledge to provide applicable solutions that mitigate the challenges that producers, families and communities face. Ultimately, SDSU Extension strives to connect the dots between the challenge, research, and innovations in technology. That connection is critical to providing producers, families and communities with solutions that answer the critical questions of who, what, where and when in the quest of improving their quality of life for themselves and the communities they call home.

“The result of the extreme weather that we faced in South Dakota, there were approximately 17 times as many prevented planted acres in 2019 than in 2018 – the most in the entire nation.”

- John Killefer, South Dakota Corn Endowed Dean of the College of Agriculture, Food and Environmental Sciences
During years when many South Dakotans are faced with great challenges, the role of SDSU Extension is especially important to provide unbiased, research-based information and assist in meeting people’s needs. SDSU Extension experts were quick to respond to the effects of the extreme weather and the impact it made on the state this year. The team offered educational programming, hosted trainings and open house meetings, and created a variety of opportunities for face-to-face and online dialogue about the challenges people were facing as a result of the excessive moisture.

According to South Dakota Governor Kristi Noem, 63 of South Dakota’s 66 counties submitted disaster declarations this year due to record-breaking storms, floods and tornadoes.

“The weather extremes that have been faced by agricultural producers and South Dakota communities during 2019 have been unprecedented. SDSU Extension professionals have prioritized direct interaction with the agricultural community by providing unbiased, research-based information and assistance based on the issues that producers have articulated as important. From livestock and agronomic needs both short and long term, to the needs of individuals, families and communities who have been affected, the SDSU Extension team is here to provide the educational resources and technical information that will be the most impactful for them as they make critical decisions both now and in the future,” said Karla Trautman, SDSU Extension Director.

According to SDSU Extension State Climatologist Laura Edwards, a combination of last fall’s moisture saturating soils and then freezing, as well as a cold winter with above average snowfall, all contributed to the excessive moisture that occurred this year.

There were three notable flooding events that occurred during 2019. The first was in mid-March when a bomb cyclone hit southeastern South Dakota and heavy snow in the northern part of the state. “The rain on top of snow on top of frozen soil all contributed to excessive moisture in the spring,” Edwards said.

The second notable event was in late May in the central part of the state. The third was in mid-September in the Madison area.

“Overall, the whole state is 200 percent above the average rainfall this year. It has really been unusual to be consistently wet. A lot of new records were set this year, including record annual rainfall this April through September considering the last 125 years of South Dakota weather data,” Edwards said.

According to the U.S. Department of Agriculture, due to excessive moisture South Dakota producers were unable to plant just shy of 4 million acres this year, the greatest amount of unplanted acres of any state in the nation and a record for South Dakota. In comparison, in 2018 there was a total of 227,646 prevented planted acres in South Dakota.

Around February, Edwards and several other members of the SDSU Extension team started having conversations about how to address the issues that many South Dakotans were likely going to face come spring.

“We pulled together a flood response team, which included people from all the extension program areas. We created and shared a lot of information and resources that could be helpful to all who might be affected by the excessive moisture, whether it be communities, businesses, farms, etc.,” Edwards said.

Addressing Farmer Stress

The SDSU Extension Rural Behavioral Health Team implemented a variety of programs to address and bring awareness around farmer stress and mental health.

The “Weathering the Storm in Agriculture: How to Cultivate a Productive Mindset” workshop is designed to provide healthy stress management strategies for farmers and ranchers when dealing with the impacts of chronic stress and trains individuals how to work with family members who may be dealing with stress.

The “Communicating with Farmers Under Stress” workshop provides tools for individuals who regularly work with the agriculture community, such as helping professionals, agri-business professionals, service members and clergy, on how to recognize and aid those experiencing chronic stress.

As of October, the team had trained over 100 participants in the farm stress curricula and plans to continue offering the workshops into next year.

SDSU Extension partnered with the South Dakota Counsellors Association to host a three-day South Dakota Farm and Ranch Stress Summit in September. Over 100 attendees took part in a variety of breakout sessions and topics about dealing with stress.

“The goals of the summit included educating counselors, social workers, psychologists, and other helping professionals on farm stress; bringing farmers, ranchers and helping professionals together to share perceptions and ideas on mental health; and increase mental health literacy among agricultural producers and those that work with them,” said Andrea Bjornstad, SDSU Extension Mental Health Specialist.

The summit also offered a Mental...
Health First Aid Training for individuals across agriculture and community landscapes. Mental Health First Aid is an evidence-based public education and prevention tool to improve the public's knowledge of mental health and substance use problems and provide assistance to those in crisis. As of October, the training has been provided by SDSU Extension personnel eight times in six locations across South Dakota and continues to be offered by request.

“Mental Health First Aid Training gives the skills needed to reach out and provide initial support to someone who may be developing a mental health or substance use problem and help connect them to appropriate care,” said Hope Kleine, a Mental Health First Aid Instructor and SDSU Extension Health Education and Food Safety Field Specialist.

Additionally, in 2018-2019, Biornestad gave 23 presentations to a variety of agricultural organizations and groups across South Dakota on farm stress. Her presentation included education on signs and symptoms of stress and depression, as well as risk factors for suicide.

“My goal is to bring awareness around farm stress and mental health,” Biornestad said.

Open House Meetings

The SDSU Extension Agronomy Team responded to flooding and excessive moisture early on by holding winter agronomy meetings and open house meetings throughout eastern South Dakota in January and April. The team held three winter agronomy meetings in January in Tyndall, Mitchell and Burke. These were held in conjunction with private applicator trainings.

“T’he idea behind the winter meetings was to provide an agronomy update for areas really hit hard by the weather last fall and winter,” said Sara Bauder, SDSU Extension Agronomy Field Specialist. “These focused on grain storage, farm economics, climate updates, field runs and other timely topics.”

As spring approached and with wet conditions continuing, Bauder decided to hold more open house meetings in April across 10 locations in eastern South Dakota. The meetings had a variety of experts on site, including several SDSU Extension specialists, USDA’s Natural Resources Conservation Service staff, USDA Risk Management Agency staff, local crop insurance agents and agribusiness people.

“The open houses offered an opportunity for producers to ask any and all questions they had in an informal, comfortable setting,” Bauder said.

Many producers planted crops this year that they don’t typically plant, mainly cover crops and forages, so Bauder said they had a lot of questions about planting, harvesting and storing them, as well as feeding them to livestock. Additionally, she said there many questions about crop insurance, conservation programs, weed and pest management, and pre-planning to best manage crops next year.

“We want people to know that we are available to answer questions and offer resources. Everyone is at a different place this year because of the weather and we strive to answer questions for each individual seeking assistance for what they are facing,” Bauder said.

Ag Economic Dialogues

The SDSU Extension Economics Team hosts Ag Economic Dialogues monthly that focus on specific and relevant topics for farmers and ranchers. A survey conducted by SDSU Extension experts of farmers and ranchers revealed that markets and weather were the two main factors causing producers the most stress going into the fall. Therefore, the team tailored the August, September and October Ag Economic Dialogues to address their concerns.

“Given the planting and calving season issues this year, producers deal with fewer bushels and calves to market this fall. With that expected decrease in income, we provided risk management, marketing and budgeting information to aid the producers’ decision making for fall and into spring 2020,” Gessner said.

Attendees joined the dialogues in person at the Sioux Falls Regional Extension Center or via online webinar.

Field Days

The SDSU Extension Agronomy Team hosts annual field days at five of the South Dakota Agricultural Experiment Stations across the state to showcase and share results of research trials being conducted on the farms. However, this year the team took a different approach.

“We started the field days with answering farmer’s questions first and then looking at the research plots if there was time left. Each farmer was facing a different situation this year and they came with many questions, so we wanted to make it a priority to help get their questions answered,” said Paul Johnson, SDSU Extension Weed Science Coordinator.
HELPING LOVED ONES TRANSITION SMOOTHLY

The SDSU Extension Gerontology Team is hosting Lunch and Learn Webinars to provide opportunities for South Dakotans to learn about aging and information to consider in order to age well. The webinars also cover topics that can be useful for people with concerns about older loved ones.

“Increasing age and end-of-life are important times of life. The decisions we make as younger people influence the opportunities available to us as older people,” said Leacey Brown, SDSU Extension gerontology field specialist.

Five webinars were held in 2019. The summer 2019 pilot of the Lunch and Learn Webinar series covered family caregiving, difficult conversations between aging parents and adult children, aging well, long-term care planning and myths about the aging brain. The webinars are meant to be convenient for people who can view the content over their lunch hour or watch the recordings at a later date.

“Participants indicated they plan to use the content in various ways, including discussing caregiving with family, reviewing personal long-term care plans, writing wills, utilizing strategies to have difficult conversations, being more conscious of how language reinforces stereotypes, etc.;” Brown said. More Lunch and Learn Webinars are scheduled for January, February and March, and topics that will be covered include 10 signs of Alzheimer’s disease, financial exploitation and strategies to stay in the home.

Dakotas Housing Study
SDSU Extension and NDSU Extension recently teamed up to conduct the Dakotas Housing Study, which showed that housing appropriate for successful aging in place is largely absent in both states. Over 600 people across South Dakota and North Dakota participated in the study.

“The purpose of this study was to explore how residents think about housing and aging in place,” said Leacey Brown, SDSU Extension Gerontology Field Specialist.

In South Dakota, 89 percent of older adults report a preference to remain in their homes and communities as they enter later stages of life. However, many older adults who plan to remain in their homes may have a difficult time accomplishing this due to a lack of appropriate housing. Strategies to build homes that are suitable for aging in place are known, but implementation has been sparse. Brown said a discrepancy exists between consumer preferences and housing options available in the current stock of homes. Most homes are missing one or more of the basic accessibility features, including no-step entrance and single floor living; extra-wide hallways and doors; lever style door handles and faucets; and accessible electrical controls. Even when these features are present, a home may not be aging in place ready. For example, the kitchen or laundry room may contain design elements that make performing routine tasks difficult.

“Lack of consumer demand is a common reason for aging in place ready homes not being built. The results of this study suggest consumers may have greater interest than housing industry professionals realize,” Brown said.

Design strategies, such as universal design, that can create aging in place ready homes without the stigma or limitations of accessibility, are largely unknown to most residents.

“What sets universal design apart from accessibility is that it is meant to meet the needs of people taller than average, shorter than average and with and without disabilities,” Brown said. Most study participants were unfamiliar with universal design.

Unlike other design approaches, such as accessible, barrier-free, etc., universal design does not offer prescriptions to meet the needs of unique individuals. The goal is to ensure the solution for one user does not interfere with how another person interacts with the space or product.

Despite consumer preferences and the high likelihood that a person with a disability will interact with most homes in the housing stock, universal design has not been implemented in the housing stock.

Beyond the preference of older adults to remain in their homes and communities, the study showed increasing the availability of aging in place ready homes will likely benefit individuals, families and communities in a variety of ways. Eliminating the need for home modifications, specifically environmental adaptations to support activity performance of people with disabilities, may reduce financial strain on nonprofits and government agencies.

“By the time older adults need home modifications, many are living on a fixed income, meaning they are unable to afford the needed adaptations to their home,” Brown said.

Additional benefits may include improved health and wellness among older adults by enhancing their abilities to perform routine activities such as meal preparation and personal cares like bathing, among other tasks.

“We hope results of this report will help to expand the discussion on housing in South Dakota. Updating the housing stock in South Dakota will take a significant amount of time. This report provides recommendations and strategies that communities might use to increase the availability of aging in place ready homes,” Brown said.

The report includes the results of the research project and recommendations for individuals, families and community leaders on how to increase the availability of homes in South Dakota that allow older South Dakotans to accomplish their goals. To view the full report, visit extension.sdstate.edu.

Sydney Meyer

www.sdstate.edu/cafes
SDSU Extension has been working extensively to build wellness coalitions across the state. These coalitions aim to improve the lives of rural community members by encouraging healthy lifestyle habits. The wellness coalitions are guided by SDSU Extension staff to implement nutrition, physical activity and gardening interventions.

SDSU Extension has been working with community members all across South Dakota communities including Elk Point, Herreid, McLaughlin, Lower Brule, Crow Creek, Lakota Homes, Dupree, Martin, Kyle, Wagner, Lake Andes and De Smet. These coalitions are comprised of community members ranging from individuals working in local healthcare, schools, city representatives, food pantry staff, and youth. Each coalition has assessments to engage the local community to help implement health initiatives. These health initiatives promote access to healthy foods, increase healthy eating behaviors and encourage participation in physical activity opportunities. Each coalition selects programs to implement based on the needs of the community. Initiatives included increasing healthy retail options, community gardening, classes on safe food preservation practices, and working with school lunch programs to offer healthier options for students.

Across the state, 13 community gardens have been established, resulting in over 7,000 produce items being harvested, a significant portion of the produce harvested was donated to local food pantries. Three community fitness zones have been established, increasing access to free physical activity opportunities. The city of Martin was recently recognized the Martin community for its accomplishments in health improvement initiatives within the community. The Martin wellness coalition has implemented several school wellness initiatives, purchased wellness equipment to be used at the Bennett County Fitness Center and in Bennett County schools, implemented the Bountiful Backpack Program, built a community garden and more. ’I’ve just seen so much growth, and there’s so much that has been accomplished. From the nutrition education that our children are receiving to young adults learning to cook healthier meals for their children. Also the Stock Healthy Shop Healthy program, the free fruit for our children, the walking and running path, our 5K run and the community garden,” said Nathania Knight, Martin community garden, “I’ve just seen so much growth, and there’s so much that has been accomplished. From the nutrition education that our children are receiving to young adults learning to cook healthier meals for their children. Also the Stock Healthy Shop Healthy program, the free fruit for our children, the walking and running path, our 5K run and the community garden,” said Nathania Knight, Martin community garden. The city of Martin was recently recognized the Martin community for its accomplishments in health improvement initiatives within the community. The Martin wellness coalition has implemented several school wellness initiatives, purchased wellness equipment to be used at the Bennett County Fitness Center and in Bennett County schools, implemented the Bountiful Backpack Program, built a community garden and more. ’I’ve just seen so much growth, and there’s so much that has been accomplished. From the nutrition education that our children are receiving to young adults learning to cook healthier meals for their children. Also the Stock Healthy Shop Healthy program, the free fruit for our children, the walking and running path, our 5K run and the community garden,” said Nathania Knight, Martin community garden.
EXTENSION PROGRAMS IN OUR OWN WORDS

SDSU Extension programs are impacting the lives of people throughout South Dakota. Here is a brief snapshot of some of the efforts taking place to benefit our stakeholders.

John Ball, Forestry Specialist – Addressing Emerald Ash Borer
Emerald ash borer, an Asian borer that kills ash trees, arrived in the U.S. in the early 1990s and has killed more than 100 million trees in 34 states. It was confirmed in Stuts Falls last year by SDSU Extension. During the next few decades, South Dakota could lose 99% of its ash trees in communities, riparian forests and windbreaks.

SDSU Extension is working with the USDA Animal and Plant Health Inspection Service, the South Dakota Department of Agriculture and communities to help slow the spread across the state, allowing time to plan for the loss of this resource. We are also assisting communities in inventing their trees and training commercial applicators in treatment methods.

Amber Letcher, 4-H Youth Development Specialist – Strengthening the Heartland
“The potential for experiencing injury or chronic pain is high in the agriculture and manufacturing industries and one possible treatment for on-the-job injuries may involve prescription opioids. Without access to proper education, the risk of unintentional misuse or dependence on prescription painkillers may increase.

Strengthening the Heartland is a multi-state, collaborative program between SDSU Extension and NDSU Extension dedicated to preventing opioid misuse in rural communities across the Dakotas. Strengthening the Heartland facilitates evidence-based prescription opioid misuse prevention programs, while also providing educational resources such as webinars and print materials for front line professionals who support rural communities. The program started in September 2018 and presentations began in January 2019. In the first year of programming, 1,518 youth and adults in South Dakota participated in the opioid misuse prevention programs.

Evaluation results indicated a significant increase in knowledge of safe prescription opioid use practices from pre-test to post-test.”

Kari O’Neill, Community Vitality Field Specialist – Change Network and Emergency Preparedness Training
“Sponsored by the Bush Foundation, the Change Network helps South Dakotans lead change within their organizations and communities in a more equitable and inclusive manner. Now in its third round of the year-long cohort, there have been over 45 participants from across South Dakota. The cohort meets throughout the year and participants attend educational trainings where they have opportunities to network with their fellow participants and other leaders across the state. The Change Network has an emphasis on leadership and works to build participants’ skills in diversity, inclusion, and equity. By doing so, the goal is to then equip the leaders to strengthen their own organizations and communities in which they live through grant-funded projects.

Each participant chooses a “champion” who serves as their mentor and supporter throughout their project. Additionally, each participant is assigned a confidant that serves on the leadership group for the Change Network and provides guidance throughout the participants’ projects.

Each member of the cohort is trained to fill out a logic model, a $5,000 grant application and a budget to carry out a project to benefit their community or organization. Plans for a fourth cohort are underway and SDSU Extension hopes to serve as a conduit in keeping alumni of this important program moving forward.”

Emergency Preparedness Training
“SDSU Extension Community Vitality has been working with Partnership with Native Americans (PWNA) since 2015 in eight reservation communities across four reservations to assist residents in planning for emergencies.

Community Vitality staff assist each community with asset mapping, forming action plans, updating action plans, and producing a ripple map at the end of the project to show their progress. SDSU Extension conducts surveys and interviews for an assessment of how the project has impacted their community. As the project unfolds, small reservation communities will add beneficial services and equipment to better prepare for emergencies.”

Jason Schoch, Tribal Local Foods Associate – AgrAbility Program
The vision of AgrAbility is to enhance quality of life for farmers, ranchers and other agricultural workers with disabilities, so that they, their families, and their communities can continue to succeed in rural America. SDSU Extension’s Tribal Local Foods Program’s Tatanka Ki Owetu program is a pilot AgrAbility program funded by USDA-NIFA that focuses on the Pine Ridge Reservation. Our program focuses on developing service capacity through innovative educational programs designed to advance individual capabilities, adapt new technologies and deliver program content through appropriate educational venues.

The South Dakota Tatanka Ki Owetu AgrAbility project is unique across the United States as far as AgrAbility projects go because we are focusing on new tribal farmers who are coming into agriculture with established disabilities, not established producers. Most AgrAbility programs in other states only work with established producers who have either suffered an accident or have been diagnosed with a chronic and disabling condition, primarily connecting them with assistive-technology resource providers such as state vocational-rehabilitation programs or business providers. With Tatanka Ki Owetu, we develop most of our assistive technology locally, only transferring a client to another resource provider when their level of disability is beyond our ability to assist them directly. The reason for this is because this is our clients lack developed or existing infrastructure, struggle for access to land or capital and/or because the state of persistent-poverty and intergenerational trauma often means that our clients live with both mental and physical disabilities, as well as behavioral or cognitive disabilities in many cases. As a result, our team spends significantly more time with clients on the ground than do other programs.

USDA and the National AgrAbility project are watching our pilot program to see if the approach could be replicable not only nationwide in areas of high poverty, but also in working with Tribal Nations across the U.S. In the first year of the program so far, SDSU’s Tribal Local Foods AgrAbility team has assisted the startup of five new disabled tribal farm operations on the Pine Ridge Reservation and developed a Tribal New Farmers Guide, which will serve as one of the core elements of the next generation of South Dakota AgrAbility in the future.”

Anthony Bly, Soils Field Specialist – Every Acre Counts
“Every Acre Counts is a project that focuses on improving the profitability, diversity and ecosystem benefits of agriculture by using precision technologies to empower producers to help make informed management decisions for every acre of crop or pasture land. This has a significant opportunity to improve on-farm profitability through input/expense reduction on marginal lands in South Dakota.

Marginal lands, which are field areas that continually have a history of losing money, will be identified with precision software using historical yield history and variable economic crop inputs. When farmers use alternative practices on marginal lands, they can improve on-farm profitability, soil health, water quality, wildlife habitat and other ecosystem services.

Every Acre Counts is currently seeking producers with eroded, salty or wetland soils interested in considering the program within the 15 targeted counties, including Brown, Clay, Clark, Spink, Faulk, Potter, Walworth, Edmunds, Lake, Moody, Minnehaha, Buffalo, Jerauld, Brule and Aurora. We have secured the precision software to do the yield and economic analysis to identify marginal lands and are currently analyzing 2,500 acres. Our accrage goal is 40,000 acres influenced over a five-year treatment period.

The goal for the program to spread statewide and eventually nationwide. The support partners are South Dakota Soil Health Coalition, South Dakota Corn, Rheaants Forever, Ducks Unlimited and South Dakota Game, Fish and Parks.”

Russ Daly, Veterinarian – One Health Program
South Dakota One Health is a collaborative effort that promotes a deeper understanding of the connections between the health of people, animals and the environment. There might not be any place in the U.S. where the One Health concept is more important than in South Dakota. For example, rates of certain zoonotic, animal-to-people spread diseases, such as E. coli O157 and cryptosporidiosis in South Dakota citizens are among the highest in the country. We are also one of the largest farm and rural populations in the country; with a correspondingly high rate of contact with animals. Potentially deadly zoonotic diseases such as rabies, tularemia, and plague are endemic in our state. Understanding these conditions and how to best approach prevention are of great importance to our citizens.

SDSU Extension partners with the Sanford USD Medical School, the South Dakota Department of Health, the South Dakota Animal Industry Board, and Area Health Education Centers to provide educational opportunities surrounding different topics important to those who live and work in the state and region. These educational opportunities include semianual seminars open to the public and an informational website, www.onedhealthsd.org. The seminars choose a One Health topic of interest to South Dakota producers and educators and the environment and encompass health and animal health aspects of the topics. Attendees include doctors, nurses, veterinarians, livestock producers, regulatory agency staff and members of the general public. Past programs have examined antibiotic resistance in people and animals, use of therapy animals in healthcare settings, influenza in people and animals, and many others. The South Dakota One Health seminars have inspired many other states to spur their own One Health efforts, including: Arkansas, Idaho, Iowa, and Montana, to name a few.”
Jennifer Folliard, Family and Community Health Field Specialist – Farm to School Manual

"Farm to School enriches the connection between agriculture, schools, parents, students and the community through food education, gardening or local food procurement in the school setting. These activities as part of farm to school, have been shown to improve students’ health and nutrition, social skills, leadership skills and behavior. Also, South Dakota children directly benefit by having fresh, local food to eat during the day. Additionally, new markets can emerge for producers by selling directly to schools. This summer, SDSU Extension, the South Dakota Department of Agriculture and Dakota Rural Action, released the South Dakota Farm to School Guidebook. The guidebook provides a roadmap for schools and producers on how to implement farm to school in their communities. Farm to School programs are emerging throughout the state and the development of the South Dakota Farm to School Guidebook will help more communities launch or grow their program.

Farm to School and the guidebook are tools to build on the rich connection that already exists between food production and communities in South Dakota. This program cuts across all sectors, engages communities in a new way to improve the health of their children and highlights the importance of South Dakota producers and South Dakota grown and raised products."

Curtis Braun, Food Safety Field Specialist – Food Safety and Small Businesses

"Food processors need to ensure that they are making safe and wholesome foods. Some small food processors are not aware of FDA Food Safety Modernization Act (FSMA) requirements, which shifts the focus of the nation’s food safety system from responding to foodborne illness to preventing it.

As a Preventive Controls Qualified Individual (PCQI), I am qualified to write FSMA food safety plans. I work with small businesses throughout South Dakota to write food safety plans, as well as create prerequisite programs to support the plans. I also provide ongoing support to the small businesses to maintain their food safety plans. This work helps ensure that food is safe and meets regulatory requirements. It also allows processors to expand their distribution footprint outside South Dakota borders by selling to wholesalers."

George Perry, Beef Reproductive Management Specialist – Precision Livestock Production

"Precision Livestock Production is the use of advanced technologies to optimize the contribution of each animal. When we put this into perspective of beef production, it is estimated that we need to double beef production by 2050 to meet the demands of the world’s growing population. Our laboratory is working on how to increase the percentage of beef cows that conceive early in the breeding season and how to decrease embryonic losses."

Previous research shows that animals that conceive early wean the equivalent of an extra calf in weaning weight during their life. Thus, by getting more cows to conceive early in the breeding season, we can have a huge economic impact on the state of South Dakota. Animals that conceive early in the breeding season will produce more pounds of calves over their lifetime. When they conceive to proven genetically superior sires through the use of artificial insemination, cows can produce calves that are faster growing and produce a higher quality product.

Embryonic losses are the other major limitation to efficiency in beef production. If an animal conceives but loses that embryo, it is a minimum of 21 days until she has a chance to conceive again. This loss of 21 days is the equivalent of 40 to 50 pounds of weaning weight. If we could prevent embryonic loss in just five out of every 100 cows, it would be possible to wean up to an additional 2,100 pounds of calf for every 100 cows."

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Y outh and adults of the Sicangu Oyate (Rosebud Sioux Tribe) and the Ogala Lakota Nation participated in range workshops this summer put on by SDSU Extension, the Natural Resources Conservation Service and partners.

4th Annual Rosedale Range Workshop

Youth from the Mission Boys and Girls Club and local 4-H clubs, as well as local adults, took part in the 4th Annual Rosedale Range Workshop held in late July at the Rosebud Sioux Tribal Ranch.

The youth learned differences in grasses, forbs and shrubs. They also learned if the plants were native to the prairie or introduced, cool season or warm-season, and perennial or annual growth periods. Medicinal uses for each plant were also discussed," said Sean Kelly, SDSU Extension Range Management Field Specialist.

T-shirts and backpacks filled with conservation information, activities and items were given to youth in attendance compliments of the RST Tribal Ranch.

The workshop was coordinated by the Natural Resources Conservation Service (NRCS), SDSU Extension and the RST Tribal Ranch.

"Participants came from near and far to attend this excellent educational opportunity to learn more about the land. The land has so much to teach us and physically being on the land is the best classroom," said Kelly.

"The workshop was coordinated by the Natural Resources Conservation Service (NRCS), SDSU Extension and the RST Tribal Ranch.

Kyle Range Workshop

SDSU Extension and the Natural Resources Conservation Service (NRCS) partnered with Lakota Funds to host a range workshop for the Oyate (people) of Ogala Lakota County. Located in the heart of some of the most diverse and scenic tracts of native rangeland in South Dakota, participants gathered at the Lakota Trade Center in Kyle, S.D. on June 7.

The day began with classroom instruction and demonstration of a tabletop rainfall simulator. The afternoon consisted of traveling to a nearby range unit for field activities. SDSU and NRCS staff provided information on rangeland inventory, grazing systems, calculating stocking rates, carrying capacities, soil health and plant identification, which also included cultural and medicinal aspects.

“Participants expressed their appreciation for the opportunity to learn more about the land and their interest in future informational activities. Next year, the team hopes to expand the learning opportunities of the range workshops to the Pine Ridge and Oglala area in addition to the Kyle area," said Kelly.

NRCS staff included Trudy Ecoffey, Pine Ridge Tribal Liaison, and Mary Scott, Rosebud Tribal Liaison. SDSU Extension staff included Sean Kelly, Range Management Field Specialist, and Jimmie Doyle, Natural Resources Extension Field Specialist.

Sydney Meyer

Left: Donna Eagle Feather discusses medicinal uses of native range plants at Rosebud.

Below: SDSU Extension Range Field Specialist Sean Kelly discusses range plants at Rosebud.
Foreign Animal Disease Preparedness Meeting

SDSU Extension, the South Dakota Pork Producers Council and the South Dakota Animal Industry Board hosted Foreign Animal Disease Preparedness meetings to help South Dakota livestock producers understand consequences and preparations for a potential foreign animal disease outbreak.

The meeting covered the current status of African Swine Fever (ASF) and Foot and Mouth Disease (FMD) in the world, the programs in place to prevent AFS and FMD from entering the United States, Canada and Mexico and addressed what FMD from entering the United States, and preparations for a potential foreign animal disease outbreak.

The meeting covered the current status of African Swine Fever (ASF) and Foot and Mouth Disease (FMD) in the world, the programs in place to prevent AFS and FMD from entering the United States, Canada and Mexico and addressed what would happen if ASF or FMD were to enter the United States.

ASF is currently the most harmful swine disease in the world and is continuing to spread. FMD is also very prevalent in Asia, Africa and eastern Europe where it not only affects pigs, but beef, dairy, sheep and goats. If the United States were to break out in FMD, all of those livestock species would be affected as well.

If the United States were to break out in AFS, experts say the exportation of pork would cease completely. This would require 27 percent more pork to be consumed domestically, which would result in a decrease in the price for pork. This would not only be devastating to the pork industry but would also impact beef and poultry consumption and the price of corn and soybeans.

The Secure Pork Supply Plan was also covered at the meeting. The goal of the Secure Pork Supply Plan are to be able to determine where ASF or FMD has broken out, to prevent the diseases from spreading across the country, and identify non-affected areas as quickly as possible so exports from those areas could resume.

“‘The National Pork Board, the South Dakota Animal Industry Board and the South Dakota Pork Producers Council need to get a lot of credit for being proactive,’” said Bob Thaler, Professor and SDSU Extension Swine Specialist. “While it’s not popular to do and we hope we’ll never need it, at least now there is a plan in place that can be rapidly implemented if we do break with ASF.”

Nicole Hudson

SDSU Extension BEEF-RELATED EFFORTS

SDSU Beef Extension specialists have been working to educate and inform South Dakota Beef producers by hosting various training and educational programs throughout the year in an effort to continue to improve the South Dakota beef industry.

AI School

SDSU Extension hosted a three-day Artificial Insemination School at the SDSU Cottonwood Research Station near Philip, S.D., July 23, 24 and 25, 2019. This school consisted of classroom training pertaining to AI techniques, reproductive-tract anatomy, heat detection, AI equipment and semen handling.

Cattle Handling Workshop

SDSU Extension also worked in conjunction with Rosebud Sioux Tribe and the USDA Natural Resource Conservation Service to host a free cattle handling workshop on Sept. 19, 2019. This workshop featured Ryan Sexson, a Nebraska cattle producer with a passion for holistic ranch management that focuses on low-stress stockmanship, stewardship of the land, and the importance of building relationships with people. The workshop featured classroom and hands-on cattle handling activities. Topics included cattle behavior, low-stress handling techniques, handling impacts on carcass quality and how to successfully implement these techniques with your own cattle.

Calf Value Discovery Program

SDSU Extension offered a Calf Value Discovery Program this year. This program allows cow/calf operators to gain valuable feedback to help improve the management decisions that impact their financial bottom line. The program is designed to allow producers to consign a minimum of five steer calves which will be fed in an accelerated finishing program at Vander Wal Yards located in Bruce, S.D. SDSU personnel will weigh cattle periodically and send performance updates to their owners. Cattle will be sold in truckload lots on a grid price system beginning on or around May 15, 2020.

Feeding Strategies

A particular emphasis this year was strategies to deal with feed challenges associated with late planting conditions, such as silage utilization and high-moisture grain management and strategies on how to use the backgrounding phase to manage cattle’s genetic potential more precisely. These segments were led by Alfredo DiCostanzo, Professor of Beef Cattle Nutrition & Management at the University of Minnesota.

Feedlot Short Course

Another opportunity offered at this year’s Feedlot Shortcourse was the chance to observe the consequences of improper implanting techniques. Brian Dorcyear, DVM, with the Veterinary Medical Center in Worthington, Minn., lead an ear necropsy session showing exactly what happens when proper procedures are not followed and how that can affect implant response. Speakers also covered topics focused on reducing cost of gain and improving outcomes, including bunk management and feed mixing, environmental stress mitigation and growth promoting technologies. These speakers included Zach Smith, SDSU Ruminant Nutrition Center Faculty Supervisor and Assistant Professor, Todd Franz, J & R Feeds, and Warren Rusche, SDSU Extension Beef Feedlot Associate.

"The course offered an opportunity for cattle feeders to learn strategies and management tips to improve their operations from industry experts,” said SDSU Extension Beef Feedlot Management Associate Warren Rusche.

Beef Quality Assurance Certification

SDSU Extension also hosted a BQA certification course on November 21, in Mitchell, S.D. Beef producers are required to be BQA certified before they can sell their cattle to many packers. This course gave producers the opportunity to become certified.

Beef Quality Assurance Transportation Certification

Another program hosted this year was a Beef Quality Assurance Transportation certification training. This multi-state workshop was offered by South Dakota State University Extension, Iowa State University Extension and Outreach, and University of Minnesota Extension on Tuesday, Dec. 10, at Sioux Falls Regional Livestock. BQA Transportation is the latest certification needed for beef cattle haulers and producers who deliver cattle to major packing plants. The BQA Transportation program focuses on transport safety, delivering cattle in a timely manner, cattle fitness of transport, cattle handling, emergency preparedness and more.

SDSU Extension’s efforts have made a significant impact on beef producers across the state and nation and will continue to do so to improve our state’s beef cattle industry.

Nicole Hudson
2019 SDSU EXTENSION YEARS OF SERVICE AWARDS

CONGRATULATIONS
TO THE FOLLOWING EXPERTS FOR THEIR YEARS OF SERVICE TO SDSU EXTENSION

25 YEARS OF SERVICE:
A. JACK DAVIS
B. PAULETTE MORSE

20 YEARS OF SERVICE:
C. KIMBERLY MCGRAW

15 YEARS OF SERVICE:
D. KIMBERLY CRIPPS
E. RUTH BECK
F. KATHIE WEIGHT
G. LORNA SABOE-WOUNDED HEAD
H. VICKIE PRUSSMAN

10 YEARS OF SERVICE:
I. LINDSEY GERARD

5 YEARS OF SERVICE:
J. MARY CLAIRE BAUER
K. ANDREA BJORNESBAD
L. AMBER ERICKSON
M. MEGAN JACOBSON
N. KAYCEE JONES
O. DAVID KARKI
P. JONATHAN KLEINJAN
Q. NATHANIA KNIGHT
R. SARA KOEPEKE
S. HILARY RISNER
T
timothy Tanner recently began his position with SDSU Extension serving as the State 4-H Youth Development Program Director. Tanner says he hopes to strengthen the program quality to continue to attract youth, while continuing to produce meaningful outcomes for local South Dakota communities now and in the future.

"Today’s busy youth have access to numerous activities and distractions," Tanner says. "They crave meaningful connection and want to belong to something important. They are laser-focused on building themselves toward a better future. I am lucky that as the leader of South Dakota 4-H, I get to offer these youth an opportunity for the connection, service and personal development that they desire."

Prior to being hired by SDSU Extension, Tanner worked for the Ohio State University Extension for 11 years. He served as the Harrison County Director and 4-H Educator for ten years and transitioned into the roles of Area Leader and Associate State 4-H Leader.

Prior to his position with the Ohio State University Extension, Tanner held various roles in youth summer camps, was the Director of Education Ministries for a local church and was the part-time District Director of Youth and Young Adults for a regional non-profit organization.

Tanner received an associate degree in general studies from Hesston College in Kansas and a bachelor’s degree in youth development that they desire. ” said Timothy Tanner, SDSU Extension 4-H Youth Program Advisor and State 4-H Ambassador Program Co-Advisor and Amber Erickson, SDSU Extension 4-H Youth Program Advisor and State 4-H Ambassador Program Co-Advisor and Amber Erickson, SDSU Extension 4-H Youth Development Field Operations Coordinator, in selecting the ambassadors. This gave teens the opportunity to network with potential employers and leaders in the industry.

The State 4-H Ambassador program was developed to expand leadership opportunities for teens by engaging in hands-on leadership development 4-H program areas, which include Agriculture, Health & Wellness, Leadership and Science.

"I was inspired to apply to be a State 4-H Ambassador, as I saw it as an opportunity to grow as a leader," said Hannah Frost, Minnehaha County 4-H member and 2019-2020 State 4-H Leadership Ambassador. "I was inspired to use the opportunity to encourage younger members and to pass on the joy of 4-H to generations to come."

Through the program, teens have the opportunity to serve on either the marketing committee or the Youth Leadership Conference committee. The marketing committee continues to build promotion and awareness of the 4-H program while providing the ambassadors with valuable skills in marketing and communications. The Teen Leadership Conference committee works closely with Tanner and Erickson to plan the annual conference while gaining event planning experience.

"We are so excited to welcome this impressive group of teens to the team this year. There is a lot of passion for 4-H and a desire to see it succeed and grow," said Risner.

Teens selected to serve for the 2019-2020 term include: Kate DeVelder, Clay County; Brianna Duerr, Day County; Julia Ebbinga, Turner County; Tessa Erdmann, Brown County; Kayla Fischer, Day County; Hannah Frost, Minnehaha County; Danika Gordon, Butte/Lawrence Counties; Matea Gordon, Butte/Lawrence Counties; Grant Gabrud, Deuel County; William Kardel, Grant County; Elisabeth Kluin, Minnehaha County; ReAnna Kotalik, Bon Homme County; Jessica Kott, Brule County; Matthew Marrs, Butte/Lawrence Counties; Alisha McMartin, Turner County; Teagan Miller, Day County; Hayden Niles, Davison County; Jessamy Sharp, Brown County; Isaac Sousa, Grant County; Taylor Storbakken, Marshall County; Halle Stuck, Slink County; Logan Tlam, Davison County; and Colton Wicks, Lake County.

Nicole Hudson

Andrea Schubloom & Nicole Hudson

www.sdstate.edu cafes
4-H Ambassadors and Alumni Serve on Next Generation of Agriculture Panel at Governor’s Ag Summit

Several individuals were recognized for their volunteer service to the South Dakota 4-H at the South Dakota State Fair. Each of these individuals have devoted many years helping the 4-H youth of South Dakota.

“In 4-H we focus on ‘inspiring youth to do’ through hands-on learning, community service, and leadership experiences. These volunteers have demonstrated the community impact that a lifestyle of ‘doing’ can achieve,” reflected Dr. Timothy Tanner, SDSU Extension State 4-H Program Director. “The 4-H program relies on the investment of caring volunteers just like these eleven honorees and we sincerely appreciate their service.”

The South Dakota 4-H Volunteer Hall of Fame was established to recognize and celebrate adult volunteers in South Dakota who have dedicated themselves to making contributions to the development of the agriculture industry and opportunities available.

Being a young producer is difficult and sharing my victory to aspiring producers and industry leaders was a tremendous milestone,” said McMartin. McMartin spoke about how 4-H inspired her to pursue a career in agriculture. 4-H and FFA instilled in her a passion for public speaking and agriculture. She combined her two passions by pursuing a degree in agricultural communications.

Eilertson is a senior animal science major at South Dakota State University. Eilertson was involved in 4-H, and showed sheep, goats, cattle and participated in other educational projects. “This panel was a great opportunity to share the challenges and rewards of being a young person involved in agriculture,” Eilertson said.

The panel gave both young and older agriculturalists the opportunity to learn from each other. The young agriculturalists were able to share their knowledge and new ideas for the future. Older agriculturalists were able to share their experiences and wisdom with them.

Williams works as a Farm and Livestock Insurance Agent. She and her husband, Tate, also operate a purebred Angus cow-calf operation near Letcher, S.D. Williams and her husband are considered millennial ranchers, as they are ranching on an acreage they purchased and a cattle herd they started from the ground up.

“Looking at the list of speakers that were presenting during the Ag Summit, I honestly wasn’t sure what to expect for a crowd that would be taking time out of their day to listen to a group of kids. I was blown away by the guests who were in attendance, the questions the audience had for our panel and the encouragement guests offered us,” Williams said. “I think it is extremely important to talk about the next generation of agriculture to not only instill a positive image of our generation wanting to be involved in agriculture and being willing to put in the work, but also to encourage anyone considering a lifestyle of farming or ranching that it is possible,” she said.

This panel gave agriculturalists an opportunity to have a candid conversation about what the future of agriculture may look like. Attendees were given ideas about how to do their part to ensure the success of the next generation of farmers and ranchers.

Nicole Hudson & Sydney Meyer

SOUTH DAKOTA 4-H HALL OF FAME INDUCTEES

From left to right: Tim Tanner, State 4-H Program Director; Tanya Jacobson (accepting on behalf of the late James Wenzlaff); Joy Braun, Diane June and Evelyn Wertmeister. Not pictured: Mary Williams.
South Dakota 4-H Year in Review

*42,634 Youth Reached Through 4-H and Educational Programming*

*9,225 4-H Members in South Dakota*

*85 State Dog Show Exhibitors*
*208 State Dog Show Entries*

*1,819 Registered 4-H Volunteers in South Dakota*

*85 Livestock Skill-A-Thon Participants & 142 State Livestock Judging Participants*

*20 Youth Participated in Performing Arts*

State Horse Show
*262 Exhibitors*
*772 Entries*
*609 Horse Events*
*163 Youth-In-Action*

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Erik McIlmurry
Janie Hansen
Jennifer Folliaid
Jennifer Hayford
Jessica Mollman
Julian Witte
Kasee Heib
Lauren Pierce
Lindsey Sylkie
Mary Payer
Olivia Amundson
Penny Phillips
Phillip Rozeboom
Regina Bakley
Shelby Anderson
Stephanie Powers
Stephanie Vento

AGRICULTURE, HORTICULTURE & PLANT SCIENCE
Dalitso Yelbowo
David Schneider
Debarku Sanjai
Johnathan Wolftuizen
Joyne Kindvoll
Kathy Mathiason
Dr. Christopher Osterloh
Meredith McCuen
Dr. Navreet Malhal

AG & BIOSYSTEMS ENGINEERING
Steph Bebensee
Dr. Xufei Yang

ANIMAL SCIENCE
Natalie Howard

DAIRY & FOOD SCIENCE
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NATURAL RESOURCE MANAGEMENT
Dr. Bruce Elchhorst
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Duane Olson
Charles Fenster
Stella Liu

VETERINARY & BIOMEDICAL SCIENCES
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Dr. Greta Krafour
Mathew Miller
Shaelyn Westergard
Dr. Gary Gackstatter

SD AG EXPERIMENT STATION
Sarah Dozler
Katie Grott

CAFS MARKETING & COMMUNICATIONS
Andrea Schubloom

WELCOME NEW FACULTY & STAFF!

SDSU EXTENSION
Bridget Munthefer
Byrne Lawrence
Caroline Hansen
Casey Ghost Crow
Charity Freeman
Erik Christenfson
Erik McIlmurry
Janie Hansen
Jennifer Folliaid
Jennifer Hayford
Jessica Mollman
Julian Witte
Kasee Heib
Lauren Pierce
Lindsey Sylkie
Mary Payer
Olivia Amundson
Penny Phillips
Phillip Rozeboom
Regina Bakley
Shelby Anderson
Stephanie Powers
Stephanie Vento

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Meredith McCuen
Dr. Navreet Malhal

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Steph Bebensee
Dr. Xufei Yang

ANIMAL SCIENCE
Natalie Howard

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Dr. Isaac Salfer

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Dr. Gary Gackstatter

SD AG EXPERIMENT STATION
Sarah Dozler
Katie Grott

CAFS MARKETING & COMMUNICATIONS
Andrea Schubloom

SHOWCASING OUR POINTS OF PRIDE

We were proud to share a few of our points of pride with Chairman of the Federal Communications Commission Ajit Pai and members of the Egyptian Trade Delegation.

FCC Chairman Ajit Pai with Agricultural and Biosystems Engineering students. From left to right: Ty Grone, Parker Aase, Ajit Pai, Logan Goslee, Ben Lucas.

Members of the Egyptian Trade Delegation: Ambassador Hamdi Salih, Mr. Ahmed Rabie, Mr. Mohamed Mambou, Mr. Ahmed Essam, Mr. Ibrahim El Meligy, Ms. Hamdy El Husseiny. SDSU faculty: College of Agriculture, Food and Environmental Sciences Dean John Killefer, SDSU President Barry H. Dunn.
Senior agricultural business student Andrew Streff has been chasing his goal of being named an American Star finalist in the National FFA Organization for more than seven years.

Growing up on his family farm outside Salem, S.D., Streff was surrounded by agriculture and began working toward his degree at a young age. As an involved member of the McCook Central FFA Chapter, Streff started keeping records of his work on the farm as part of his Supervised Agricultural Experience (SAE) project when he was a freshman in high school. According to the National Council for Agricultural Education, SAE projects are student-led, instructor-supervised and work-based learning experiences that help students to explore careers, learn real-world skills, gain hands-on experience, put their talents to work and help them earn an income while finding their passion.

Upon receiving his American FFA degree, the highest degree attainable in the FFA, Streff was finally eligible to apply for an American Star award. His combined years of working on the family farm and completing two internships qualified him for the American Star in Agricultural Placement at the National FFA Convention and Expo where he underwent a more in-depth interview process.

“Streff has not only excelled in the agricultural sciences and other areas, but he is also a dedicated member of his FFA chapter,” said McCook Central FFA Advisor Terry Stuckman. “Andrew’s effort toward his SAE project and all of his hard work will be recognized as he completes his senior year at SDSU.”

For Streff, there were three parts to his SAE. The first being his work on the family farm managing their acres of corn and soybeans from planting in the spring to harvesting in the fall. The second was his work as a crop scout intern during summer 2017 at his local cooperative, Central Farmers Coop, where he scanned 11,000 acres of crops for local farmers and helped manage 16 test plots throughout southeastern South Dakota. The third part was his internship working for Winfield United in Ohio over summer 2018 where he managed technology research trials, test plots and serviced customer technology needs throughout the western half of Ohio and eastern Indiana.

“All three parts of my SAE helped me to gain a well-rounded education in the agricultural industry,” Streff said. “Working for my dad and other companies gave me a more diverse knowledge of the industry and the ability to look at it from both a farmer’s perspective and a sales perspective.”

Streff submitted his American Star application in May 2019 and reached his goal of being named a finalist for the award in July 2019. Each state is allowed to nominate one member for the award and four are selected as finalists who then advance to the National FFA Convention and Expo where they undergo a more in-depth interview process.

“The star awards are very prestigious awards so the judges really look for how well you know the nitty gritty details of your project,” Streff said. “I was asked very specific questions about my application and the results of the work I completed and decisions I made along the way.”

After arriving in Indianapolis and completing his final interviews, Streff exceeded his goal and was named the 2019 American Star in Agricultural Placement as his name was announced on stage at the 92nd National FFA Convention and Expo at Lucas Oil Stadium. As the recipient, he received a total of $4,000, $2,000 of which he received upon being a finalist and an additional $2,000 for winning the award. “Whether it was working on the farm or taking an internship 15 hours away from home to learn more about the industry, it was very humbling to see how the countless hours of work that I put into my project and the amount of mentoring I received from so many different people paid off in the end,” Streff said. “It was a big moment for everyone in my circle – I wouldn’t have gotten there without the support of my FFA advisor, my parents and the different mentors I had throughout my community.”

Streff’s big accomplishment is not his first. Since he became a member, Streff has competed in parliamentary procedure and land judging at the national level, and also participated in the extemporaneous speaking, agricultural mechanics and agronomy leadership and career development events. Additionally, Streff served as a state FFA officer for South Dakota as the 2016-2017 State FFA Treasurer.

“For the time he came in as a freshman, you could see and feel the determination he had to succeed and the passion he had for the agricultural industry,” said McCook Central FFA Advisor Terry Stuckman. “Andrew was always such a positive role model and leader, but I think the thing that always stood out was how goal oriented he was.”

At South Dakota State University, Streff continues to serve the FFA with his time and assistance during the South Dakota State FFA Convention that is held on campus. He is also an active member of FarmHouse Fraternity, Agronomy Club, Little International and the College of Agriculture, Food and Environmental Sciences Prexy Council.

Upon graduation in May 2020, Streff plans to return home to his local community and pursue a career working in crop insurance or commodity brokering so that he can remain active on his family farm.

For his engaging teaching methods and commitment to students, South Dakota State University animal science professor Cody Wright is a recipient of the U.S. Department of Agriculture (USDA) Excellence in College and University Teaching Award for Food and Agricultural Sciences. The Association of Public and Land-grant Universities (APLU) presented the award to Wright on Nov. 10 in San Diego, Calif.

“Dr. Wright has a unique ability to contextualize course content into learning experiences to which students readily relate and value,” said Don Marshall, associate dean for academic programs of the SDSU College of Agriculture, Food and Environmental Sciences. “He stays well informed of industry practices, trends and issues, and brings that information into the classroom to illustrate real-life applications of important concepts.”

Wright teaches Ruminant Livestock Production, Livestock Feeds and Feeding, Current Issues in Animal Science, Cow-Calf Management, and Vitamins and Minerals. He also coordinates internships in the Animal Science Department, works with students on independent study projects and assists students with undergraduate teaching experiences.

“The most rewarding part of being a professor is hands down the students,” Wright said. “Getting to know them and helping them understand the key concepts and practices that will be beneficial in their careers energizes me. There is nothing better than having a student experience an a-ha moment.”

Wright’s teaching philosophy revolves around creating and fostering a positive learning environment, establishing high expectations and demonstrating the relevance and application of course material.

“I believe that to be effective, the learning process needs to be a team effort between the instructor and the students,” Wright said. “Indeed, effective teaching is much more about facilitating learning than imparting knowledge. In my courses, I strive to help students build bridges between basic and applied sciences and help them recognize relationships between theory and application.”

Wright has been recognized as outstanding professors of agriculture, natural resources, veterinary and human sciences. Individuals are nominated by their college/university for the award and are evaluated by a panel of nationally recognized teachers and scholars. The panel chooses two national recipients, two early career awardees and up to six regional awardees. Recipients are chosen based on their ability as instructors, educational innovation, service to students, professionalism and scholarship.

Wright will receive $2,000 to be disbursed to SDSU and used for the purposes he designates in support of strengthening instructional programs in food and agricultural sciences. The award program is a partnership between APLU and USDA’s National Institute of Food and Agriculture.
College News

Frequently senior agricultural leadership student Jeanette Klein of White, S.D., Hobo Day is more than a long-standing South Dakota State University tradition — Hobo Day is a family tradition.

Since 1912, Hobo Day has been the biggest one-day event in the Dakotas and SDSU’s beloved homecoming celebration, bringing thousands of alumni, students, supporters, community members and families from across the nation to campus each year. Throughout the week leading up to Hobo Day, students on the Hobo Day Committee host several events for SDSU students and the community to take part in, such as One Month Club, Bum-A-Meal, Rally at the Rails, Hobolympics, BumFire and more.

Hobo Day Committee
Shortly after her start at SDSU, Klein joined the Hobo Day Committee. The committee is comprised of the Grand Pooba who leads the group and three Assistant Poobas who manage events, parade and marketing teams made up of another small group of students.

"Two of my older cousins were on the Hobo Day Committee," Klein said. "I saw how much fun they had and I was looking for a way to get involved with the traditions of the university, too." During her first year on the committee in 2016, Klein served as the coordinator for the Hobolympics event where students compete in a series of athletic and mind-stretching games. She then served as the Assistant Pooba of Events during 2017 and 2018 where she oversaw all events during Hobo Week.

After being on the committee for three years, Klein became the third member in her family selected to serve as Grand Pooba who leads the Hobo Day Committee and the 107th Hobo Day on October 5, 2019. Her cousins, Corey and Anna Chicoine, previously served as Grand Pooba in 2016 and 2017.

"It was fun to share the Grand Pooba experience with my cousins Corey and Anna," Klein said. "We are all third-generation Jackrabbits, so it meant a lot to my aunts, uncles and family to see all three of us serve in this role."

To be selected as Grand Pooba, committee members go through two rounds of interviews, one with stakeholders and one with the Hobo Day Committee where they present their vision plan for the upcoming Hobo Day. The two groups then give their input and the decision is ultimately up to the current Grand Pooba to select his/her successor.

"Grand Pooba responsibilities included budgeting, conducting planning meetings, setting deadlines, scheduling the summer parade tour, overseeing all committee teams, and maintaining connections with partners across campus and in the community. Additionally, she was in charge of selecting the Hobo Day Parade Grand Marshall who is usually a friend or alum of SDSU. She also selected two alumni of the Hobo Day Committee to return to campus and act as the Hobo Day mascots, Weary Wil and Dirty Lil, whose real identities are revealed during halftime of the Hobo Day football game."

Klein recently chose her fellow committee member, Kylee Donnelly, to serve as the 2020 Grand Pooba. The 108th Hobo Day will be held October 31, 2020.

"Wander On"
Each year, the Hobo Day Committee chooses a tagline for the celebration. The tagline is a phrase that ties back to Hobo Day traditions and is created together by the entire committee. The 2019 tagline “Wander On” was a way for students to relate to historic hobos.

"When people were coming back from the Civil War, they would hop on trains to get back to their hometowns," Klein said. "Many lived across the country and would have to get off the trains and get odd jobs for a while to make some cash in order to continue their journey home. They would meet new people along the way and some really adopted the lifestyle of riding the rails because they enjoyed the spirit of wandering and exploring the country. Students can relate to hobos in that way because a lot of us are in a new place and we are really just exploring our passions, interests and figuring out where to go next in life."

The Next Step
Throughout her years at SDSU, Klein has been a member of Little International, Alpha Xi Delta Sorority, Choralia, State A Thon, served as an Admissions Ambassador and South Dakota FFA volunteer and worked at the SDSU Alumni Center.

Upon graduation in May 2020, Klein plans to combine her love for the agriculture and hospitality industries and pursue a career in youth development and agritourism.

"I have had some really awesome classes and professors that have encouraged me to pursue my passions, even if they are unconventional," Klein said. "That encouragement and support combined with my extracurricular involvement has given me confidence for my life post-graduation."

Klein plans to return to campus and help with the Hobo Day Parade in the future. She hopes to connect with future Hobo Day Committee members and share her stories like many alumni have done with her.

"Even though my time on the committee is done, my experience with Hobo Day is not done," Klein said. "Hobo Day is one of the most unique homecoming celebrations in the country and I look forward to coming back to Brookings and meeting those friends for years to come."

Andrea Schubloom
The City of Brookings honored Akimoto and Tomoko Ichinomiya as the recipients of the 20th annual Dorothy and Eugene T. Butler Human Rights Award on Thursday, September 26. The Ichinomiyas are being recognized for effectively advancing the cause of human rights by helping people from all around the world adapt to life in Brookings and by educating people in this region about Japanese culture. Their astounding ability to bring together people from diverse cultures is a role model for American citizens in Brookings and across the nation.

The Butler Human Rights Award presentation was held in conjunction with the ABL Awards for Accessibility, the Mayor’s Sustainability Awards, the Mayor’s Awards for Historic Preservation and the Mayor’s Generational Leadership Awards at McCrory Gardens Visitor Center on Thursday, September 26 from 5:00 to 7:00 p.m.

The Ichinomiya’s community service to friends and neighbors has been voluntary and unpaid. For years, Tomoko’s status as a student wife prohibited her from paid employment but she handled her volunteer work with the same dedication of a professional. The Ichinomiya’s stated goal is to contribute to the community that embraced them to achieve their aspirations from paid employment but she handled her volunteer work with the same dedication of a professional. The Ichinomiya’s stated goal is to contribute to the community that embraced them to achieve their aspirations from paid employment but she handled her volunteer work with the same dedication of a professional. The Ichinomiya’s stated goal is to contribute to the community that embraced them to achieve their aspirations from paid employment but she handled her volunteer work with the same dedication of a professional.

Tomoko’s examples for building socialization for international wives and daughters for drivers and leaders in services and with donations to international students.

Nate Franzén, president of the South Dakota Beef Industry Council, said.

The annual meeting began Tuesday, June 18, with a young producer symposium and Convention. "The symposium was to bring together industry professionals, producers and researchers to discuss current issues facing the beef industry," Franzén said.

The 51st Beef Improvement Federation Research Symposium and Convention was held June 18-21 in Brookings, S.D. South Dakota State University served as a host for the event in partnership with the South Dakota Beef Cattle Breeds Council. The purpose of the annual meeting and research symposium was to bring together industry professionals, producers and researchers to discuss current issues facing the beef industry.

The First Dakota National Bank has been a longtime supporter of SDSU and has been in First Dakota’s blood since they opened their doors in 1872. Their commitment to farmers and ranchers through every calving and growing season has allowed them to grow into one of the largest agricultural lenders in the nation.

At the conclusion of the convention on Thursday, June 20, an evening social and BBQ was held at the SDSU Cowl Educational Research Center. Cowl EDRF and is capable of performing production-scale feedlot management comparisons.

“South Dakota is home to some of the most premier beef cattle seedstock producers in the U.S. and it was a pleasure to highlight those operations along with the state of the art facilities and learning opportunities we offer here at SDSU,” Cassady said.

Andrea Schubloom
changed the look of farming over the years. It’s about improving and implementing new technology because that is where the future of agriculture is going,” Sperry said. “While on the surface agriculture can appear similar from place to place, in today’s world, farming practices can differ drastically, influencing inputs, yields and profits.”

When crafting the message for his video, Sperry drew inspiration from his older brother, Mark, who served as a Peace Corps volunteer in Zambia, Africa, from 2017-2019 teaching fish farming and improved agricultural practices to local village farmers. Because of a lack of electricity, running water and resources, farming in Africa is much more labor intensive than it is on Sperry’s family farm near W Bath. However, Sperry wanted to show how farmers around the globe are working to feed the growing population.

“Whether we are from Africa or South Dakota, we are all working to put food on the world’s tables,” Sperry said. To provide additional insight on the topic, Sperry also interviewed two of his professors at SDSU and included their comments in the video.

“The similarities between farmers across the world are bigger than their differences,” said Elijah Kosse, instructor in the SDSU Ness School of Management and Economics. “Whether it’s a two-acre plot in Zambia or a 2,500-acre farm in South Dakota, farmers are seeking the same goal – to grow more food with lower costs, both lower economic costs and lower environmental costs.”

With over 140 entries from young men and women worldwide, the top 30 video submissions were chosen based on a set of criteria evaluating how compelling the message was and the uniqueness, creativity and level of craft that went into producing the video. Being one of the top 30 participants, Sperry then had to promote his own video to gain votes during a two-week voting period where two videos were eliminated each day.

Sperry said he and his family reached out to their friends and connections through 4-H, their local cooperative, implement dealers, the township board and soil conservation service asking people to vote for his video.

At the conclusion of the two-week voting period, Sperry’s video had 5,093 votes, making him one of two grand prize winners of the contest. As a result, Sperry and his fellow grand prize winner, Hannah Riensche of Rochester, Minnesota, each won $5,000 and attended the Iowa and Indiana state fairs where they were presented with their awards and spoke about their videos. Additionally, Sperry presented about his video at the Indiana, Iowa and South Dakota state fairs, the Farm Progress Show in Decatur, Illinois, and visited with Corteva Agriscience and Pioneer executives at their international offices and research facilities in both Indianapolis and Johnston, Iowa.

“I was thrilled that he won,” Kosse said. “To put a lot of time and effort into the project and the message he shared is so vital.”

“It was really humbling to see the support that everyone gave,” Sperry said. “I’m glad that so many people were interested and I hope that they watched mine and the other videos to see what’s out there. That is what this contest was all about – to introduce people to what the agriculture industry means to the young generation.”

While at SDSU, Sperry is heavily involved on campus and is an active member of the Agronomy Club, Precision Agriculture Club, Shooting Sports Club, Golden Key International Honors Society, National Society of Collegiate Scholars, Jacks for Life, and Fellowship of Catholic University Students (FOCUS). He also involves himself in many community service projects and serves as an adult 4-H leader.

For Sperry, his future plans are to work in the agricultural industry near his home while becoming the fifth generation involved on his family farm. Home is where his passion for agriculture began, and is where he plans to return and continue to fuel that passion.

“Agriculture has really taken off,” Sperry said. “I can’t see myself being in any other industry other than agriculture, because it is where all of it comes together.”

Sperry’s winning video can be viewed at farmfluencer.com.
UNDERWATER DRONE
OFFERS EXCITING WAYS TO STUDY WATER QUALITY

Drones flying through the sky assist the agricultural world in collecting data. At the 2019 Dakotafest, a drone operating underwater drew a great deal of attention. The new tool offers a huge change in the way researchers can study water quality in lakes and streams.

South Dakota State University junior Alex Masloski of Blaine, Minn. showed how the drone worked in a pool within the tent. “Currently, grab samples are collected at a few points in lakes and streams to determine water quality. In a lake that means you need a boat to drive to a location, take a sample, then move to another location, take another sample and repeat. With the drone, I can program another location, take another sample and move to another location, take another sample and repeat. It’s much different from what we see from the surface. You can learn so much more when the drone can dive below the water and show you what’s there.”

“Doing this is really cool stuff. It combines learning engineering to develop the drone and programming the drone to collect and visualize on a map to provide real-time water quality data collection and visualization on a map showing where the measurements are located.”

“The drone can be used in any body of water that is deep enough to cover it. The camera at the front of the drone provides a real-time view of the scene in the system’s front. The drone pilot can use the live video feed to watch for unexpected events or findings and mark the 3D location as a spot for further testing. It also has a grabber that can take samples from plants or sediment found in the water body.”

Alex Masloski of Blaine, Minn. showed how the drone worked in a pool within the tent. Below: Masloski conducting a demonstration of the underwater drone at Dakotafest.

In working on the project, Masloski learned more about how agricultural and biosystems engineers work together to provide solutions. “I walked in with four semesters of college under my belt when I started working on this project. SDSU provided me with the resources and guidance to use what I’ve learned to get real-world experience to develop innovative technology. Extension provides a lot of research and practical applications that people can use in agriculture. While working on the drone this summer, I also shared what I’ve learned through public outreach at events like Dakotafest.”

“Currently, grab samples are collected at a few points in lakes and streams to determine water quality. In a lake that means you need a boat to drive to a location, take a sample, then move to another location, take another sample and repeat. With the drone, I can program another location, take another sample and move to another location, take another sample and repeat. It’s much different from what we see from the surface. You can learn so much more when the drone can dive below the water and show you what’s there.”

“The drone is very intuitive for college students who have played video games,” McCauley said. “Combining the drone with the sensors allows us to get a very good picture of water quality. We’ll use it as a teaching tool and a research tool to understand water quality in three dimensions. This project emphasizes the diverse topics agricultural engineering addresses by combining several topics covered in the major including mechanical engineering, signal processing, and environmental engineering.”

Connie Sieh Groop
POET founder and CEO Jeff Broin announced a $2 million gift for precision agriculture at South Dakota State University.

POET and SDSU have a strong history of collaboration on innovative research projects and training the next generation to use agriculture to solve the world’s most pressing issues, like climate change. POET is proud to partner with SDSU on this exciting venture. In addition:

- POET’s gift will support construction of the Raven Precision Agriculture Center;
- POET and SDSU will enhance research partnerships through dedicated POET office space at the Research Park at South Dakota State University to help facilitate new, groundbreaking collaborations; and
- POET and SDSU will partner to develop academic programs in bioprocessing so SDSU graduates will have a robust understanding of how biofuels and agriculture can drive change across the globe.

The stakes have never been higher to combat climate change. What was once considered a problem for the distant future is a real threat to all of us today. “A little over 100 years ago, we derived nearly everything in our society from the surface of the earth. If we want to return to a healthy planet, we will once again need to lean on agriculture, in combination with biofuels and bioproducts, to replace fossil fuels and their derivatives. This gift supports South Dakota’s future farmers, who will need to cultivate even more sustainable ag practices for future generations.” said POET Founder and CEO Jeff Broin.

SDSU’s increasing commitment to precision agriculture, including being the first university to offer both a four-year precision agriculture major and minor and the construction of the new Raven Precision Agriculture Center on campus, will position the Jackrabbits to lead the way in making positive change that impacts future generations across the globe.

“We are grateful for the tremendous support POET has shown toward SDSU and our precision agriculture program,” said SDSU President Barry Dunn. “Partnering with the leading biofuels company in the world creates unique opportunities to not only grow precision agriculture at SDSU, but also expand the industry into areas where change and growth can have a positive impact on the environment and society as a whole. Educating and training the next generation of ag producers, scientists, engineers and others to meet the challenges and opportunities will define the future of agriculture and the biofuels industry in the state, region and the world.”

POET Commits $2 Million to Support South Dakota State University Precision Agriculture Program

Corteva Agriscience recently announced a $600,000 gift to support the South Dakota State University precision agriculture program and construction of the new Raven Precision Agriculture Center on campus. The gift will sponsor the Corteva Student Atrium inside the new facility.

“We are very fortunate to have Corteva Agriscience partner with us on this groundbreaking precision agriculture facility and program,” said John Killefer, South Dakota Corn Endowed Dean of the South Dakota State University College of Agriculture, Food and Environmental Sciences. “The culture of innovation that is shared between Corteva Agriscience and South Dakota State University makes for a perfect partnership that will help ensure an exciting and impactful future for precision agriculture as we work together to feed a hungry world and conserve our precious natural resources.”

The launch of a precision ag-focused major is a big opportunity for the future of agriculture and can help make a difference in the lives of farmers everywhere,” said Jamie Williamson, Corteva Agriscience Area Leader – Northern Plains. “Precision agriculture is just one in a long list of innovations that help us find the solutions needed to solve the problems of today and anticipate tomorrow’s challenges. Corteva Agriscience is focused on providing farmers with complete solutions, and digital agriculture is a key component to meet the needs of farmers.”

SDSU is the nation’s first land-grant university to offer a bachelor’s degree and minor in precision agriculture and can help make a difference in the lives of farmers everywhere, said Williamson. “As a champion of responsible agriculture and an industry leader in digital technology, we look forward to what these capable students and this historic university can accomplish going forward.”

Sydney Meyer & Andrea Schubloom

Corteva Agriscience presents the SDSU Foundation with a check to support the Corteva Student Atrium in the Raven Precision Agriculture Center.

Bottom: POET founder and CEO Jeff Broin announcing POET’s $2 million contribution to the Raven Precision Agriculture Center and SDSU’s precision agriculture program.

Below: SDSU President Barry H. Dunn gives remarks at the news conference after POET’s gift was announced.
College of Agriculture, Food and Environmental Sciences Results:

- **$109,455** raised
- **209 donors**
- **24 first-time donors**

All funds raised during One Day for State will help to provide our students with scholarships, travel opportunities, hands-on learning experiences and much more!

**2019 Results**

**One day for STATE**

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**INVESTING IN TOMORROW’S LEADERS TODAY**

At South Dakota State University we expect to be a premier land-grant institution recognized for high value, innovation and bold impact. We are dedicated to the education, growth and success of all our students. Within the College of Agriculture, Food and Environmental Sciences we embrace our land-grant mission as we prepare our graduates to feed the world, ensure the future of our natural resources, and shape the communities in which they live.

For generations, our graduates have been impactful leaders in their professions and home communities. We have an opportunity to build on this legacy of leadership. Moving forward, we expect to enhance the impact the students of our college make on our state, region and the world. We are preparing our current and future students to be global citizens that fuel our region’s workforce. We are engaging at a deeper level with producers, business/industry leaders, and communities asking them to partner with us as we invest in the next great generation of Jackrabbit students.

Our students have bold aspirations to lead and change our world. Our university has and will continue to be the launching pad for personal growth and professional development for our graduates. We are continually finding ways to enhance the resources we provide our students as they earn their degrees and prepare to enter the workforce.

Scholarship support, quality facilities, internship opportunities, competition experiences, access to state-of-the-art technology and first-rate instruction are essential elements in preparing our students to have impactful, personal and professional lives once they leave South Dakota State. Thanks to a strong “culture of giving” at our institution, we have made great strides in recent years in providing these resources, but we are just getting started.

If you are a current donor, thank you. Your commitment to our mission is making an impact. If you are interested in exploring ways to invest in “Tomorrow’s Leaders Today”, we would enjoy discussing how you can make a difference at SDSU.

We appreciate your thoughtful consideration and look forward to our next conversation.

Keith Mahlum, MS ’93

For more information on scholarships or to make a contribution, please contact the SDSU Foundation:

605-697-7475 | info@sdstatefoundation.org
www.sdstatefoundation.org
815 Medary Avenue, Brookings, SD 57007

www.sdstatefoundation.org/odfs

OUR STUDENTS HAVE BOLD DREAMS AND AMBITIONS FOR THEIR FUTURE.

Scholarships change their lives and contribute to their success at SDSU.

The College of Agriculture, Food and Environmental Sciences would like to extend a sincere thank you to our friends at First Dakota National Bank for being our challenge donor during One Day for State. First Dakota National Bank matched $25,000 of the college’s total for the day.

We’d also like to thank all alumni, current students and their families, SDSU faculty and staff, friends and past/present/future Jackrabbits from near and far for their generous support during One Day for State. Together WE raised over $109,000 for CAFES!
The South Dakota State University bookstore is now your one-stop-shop for Jackrabbit apparel and SDSU Extension books.