VISITS TO CAMPUS

VARIETY OF SUMMER CAMPS

BRING PROSPECTIVE STUDENTS

CORN, SOYBEANS, WHEAT & MORE

PLANT SCIENTISTS

ASSIST STATE’S FARMERS
As fall progresses, crops are harvested and calves are weaned. Talk at local elevators, sailearns and coffee shops turns to measurements: yields per acre, moisture levels of grain, weaning weights, and pregnancy percentages.

Typically, it’s a cautious conversation. South Dakotans are a modest group and are often torn between their inherent modesty, while quietly acknowledging that their agricultural skills and knowledge have resulted in a productive year. Later in the year, as farmers and ranchers work with their bankers and accountants, the measurements will turn to dollars, as profits or losses are calculated on income statements and changes to net worth are reported on balance sheets.

At SDSU, we, too, measure our “yields.” But in our case, our “crops” are our graduates, our research, and our ability to serve the state through Extension programs.

We measure our “student crop” yield by their ability to not only graduate with a degree in their discipline of interest, but also in their ability to enter the workforce with a good paying job. A college degree may take four or five years to complete, and offers a return on investment to the graduate in a relatively short period of time.

Benefits to society from our alumnus exhibit themselves for lifetimes. Although difficult to measure, there is value created by our alumni as they serve as thought leaders to open doors for future generations. We see and hear about the successes; and our Alumni Association selects a group of them to honor each year.

Research is another of our “crops.” We measure the yield of research in a number of ways, but most importantly by how our research answers questions critical to our stakeholders. Research advances our economy by moving the boundaries of possibility.

And yet another “crop” is our Extension programs. Citizens across the state help us harvest this crop each time they earn a pesticide applicator license, change a management practice to improve profitability, participate in Master Gardening training, adjust their families diet based on unbiased nutritional information, or help their community develop an environment that fosters business growth. We also have even more sensitive measures of impact, as we count and analyze the daily site and page visits of iGrow, which are steadily growing.

In preparation to guide – and measure – our future efforts, last summer, under the leadership of President David Chicoine and Provost Laurie Nichols, SDSU unveiled a new strategic plan for SDSU, entitled Impact 2018. This robust plan is the result of an intense 18 month development process that was both introspective in terms of structure, processes and procedures, but outwardly focused in terms of mission. Impact 2018 has four major goals:

**Goal 1: Academic Excellence** – Promote academic excellence through quality programs, engaged learners and an innovative teaching and learning environment.

**Goal 2: Research & Innovation** – Generate new knowledge, encourage innovations and promote artistic and creative works that contribute to the public good and result in social, cultural or economic development for South Dakota, the region, the nation and the world.

**Goal 3: Outreach** – Extend the reach and depth of the University by developing strategic programs and collaborations.

**Goal 4: High-Performing University** – Secure human and fiscal resources to ensure high performance through enhanced financial, management and governance systems.

While the first three goals tie SDSU closely to our land-grant roots, I am particularly proud of, and want to draw attention to, Goal 4, the commitment to be a high performing university.

Having spent much of my adult life in the private sector as a cattle rancher and farmer, I am sensitive to the criticism that universities all too often seem bureaucratic and slow to respond. Certainly I have heard that criticism since becoming a dean of the College of Agriculture and Biological Sciences at SDSU. So it was with sincere pride that I saw Goal 4 emerge from SDSU’s strategic planning process.

Through improved fiscal management and governance, the university’s leadership team, faculty and staff have committed ourselves to improve the stewardship of the public and private resources with which we have been entrusted. In terms of undergraduate education, research and outreach, we have committed ourselves to do our very best – to be the very best. And perhaps most importantly, we have set ambitious goals with performance benchmarks to measure and report on our progress.

Each of SDSU’s six academic colleges, and all of the individual service units, has now developed our own strategic plans, using Impact 2018 as our road map. Our individual academic departments are implementing tactical plans to achieve our overall goals.

Taking my “dean hat” off for a minute and going back to my former life as a rancher and farmer, I couldn’t be prouder of my alma mater and my state’s land-grant university for the commitments it has made in Impact 2018. SDSU is clearly on the right path and will “yield” a tremendous harvest for our state.


Barry H. Dunn, PhD
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South Dakota State University, South Dakota counties, and USDA cooperating.
South Dakota State University adheres to AA/EO guidelines in offering educational programs and services.

On the Cover:
Each June more than 100 youth ages 13 to 19 attend the Teen Leadership Conference hosted by the South Dakota 4-H Youth Council on the SDSU campus. Additionally, the College hosts summer youth camps related to a variety of ag and biological fields as a means of exposing students to future education and career opportunities. Read more beginning on page 8.

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Crop Watchers

Plant Science Department research efforts strive to enhance production and management practices in farmers’ fields.

A drive down just about any South Dakota highway showcases the bountiful crops produced by our state’s farmers. Fields of corn, soybeans, wheat, sunflowers and other crops often stretch for as far as the eye can see. These homegrown crops are integral to feeding both South Dakotans and the growing population around the world.

Over the decades, advancements from SDSU research conducted in agronomy, entomology, precision agriculture and related areas has been key to helping South Dakota farmers continue to improve their production and management practices. Research efforts by SDSU Plant Science faculty continue year-round, but particularly ramp up during the growing and harvest season. Here are highlights of some of the current work that occurred during the recent field season.

Evaluating Efforts To Reduce Soybean Aphids

Kelley Tilmon, an associate professor of entomology in SDSU’s Plant Science Department, spent part of the field season evaluating soybean genes that confer resistance to the soybean aphid, a major insect pest of soybeans.

Tilmon explains that different genes have been discovered that make soybean plants at least partially resistant to the aphids, and plant breeders have been working to breed them into varieties for commercial production. Tilmon’s research efforts are to identify how these genes perform in the field.

She explains, “We are involved in testing experimental aphid-resistant plant lines and how they actually perform in the field with regard to reduction in insect pressure. The study we conducted in 2013 looked at two different genes (Rag1 and Rag2), how they performed alone, and how they performed when ‘pyramided’ together. We also looked at how aphid populations fared on these plants containing these genes with and without the use of insecticidal seed treatments applied at planting because this is a common agricultural practice now.”

She adds, “Resistant varieties are an important part of insect pest management because they provide us with a way to decrease insect pest pressure without relying exclusively on pesticides. This is good for farmers because it can reduce their input costs and the time they spend on pest management, and it’s good for the environment because it helps lessen pesticide use.”

Another research project of Tilmon’s looked at how different pesticide seed treatments affect soybean aphid populations in the field, with a particular focus on the cost/benefit ratio of those seed treatments.

Tilmon says they are evaluating how often and to what degree seed treatments reduce aphid populations. As well, they are asking: what is the economic benefit of the reduction compared to the cost of the product, and how does that compare to the cost of other pest management tactics?

“This is important because producers often invest in seed treatments for insect control, but independent, university research on the true cost/benefit ratio of these products still needs to be conducted to provide producers with unbiased information on what they can expect from these products,” Tilmon says.

In a third project, Tilmon is also researching soybean aphid biotypes that have overcome resistant soybean varieties. She explains, “For every plant defense there is usually a counter-attack from pests, and plant resistance genes are no exception. Several soybean aphid genotypes have been found which do much better on resistant varieties, which reduces the effectiveness of the plant resistance. We are monitoring for such biotypes in South Dakota to see which ones we have and how common they are.”

Year-round Tilmon is also involved in directing a $2.1 million multi-state research and extension project funded by the North Central Soybean Research Program to study soybean aphid biology and management. She reports that this project involves 22 researchers in 12 states and is a large coordinated effort to provide pest management solutions to soybean producers throughout the region.

Tilmon credits the South Dakota Soybean Research and Promotion Council and the North Central Soybean Research Program, with helping make much of the research and education efforts SDSU is involved with possible through the farmer-generated checkoff dollars.
Monitoring New Invasive Fruit Fly

South Dakota’s backyard and commercial fruit producers benefit from work done by SDSU’s Plant Science Department as well. In late August 2013, the first report of spotted-wing drosophila, an invasive fruit fly, was confirmed in Yankton County, South Dakota.

Trapping and preliminary identification was conducted by Buyung Hadi, SDSU Extension Urban Entomology Specialist.

Hadi explains that South Dakota does have other fruit flies – but they lay their eggs inside cracked or damaged fruits. However, the female spotted-wing drosophila is capable of laying eggs inside healthy ripe fruits. Hadi says this is especially true for raspberry, blueberry and blackberry. Due to this, spotted-wing drosophila is considered a potentially damaging pest for small fruit production.

Preparing For Wheat Stem Sawfly

Several SDSU research projects with wheat are also underway, including documenting the incidence of wheat infestations by a new emerging pest, wheat stem sawfly.

Monitoring the western South Dakota sites where this pest has been noted in the past will allow for timely recommendations of management strategies. In a project funded by the South Dakota Wheat Commission and conducted in collaboration with the Wheat Breeding Program at SDSU, researchers are investigating how wheat stem sawfly resistant varieties of winter and spring wheat can be used as a sustainable, long-term management tool to reduce the impact of this insect pest on wheat production in South Dakota.
Studying Efforts To Manage Corn Rootworms

“Both corn rootworm resistance to Bt corn and unexpected damage to Bt corn are primary concerns for corn producers and will have significant impact on corn production in the coming years,” points out Ada Szczepaniec (pictured at right), an Assistant Professor and Extension Entomologist with SDSU’s Plant Science Department.

To address those concerns, one of Szczepaniec’s current research projects includes monitoring the incidence of resistance of corn rootworms to Bt corn hybrids and unexpected performance issues of Bt corn. She has established several on-farm experiments testing effectiveness of different Bt corn hybrids in sites that have had high corn rootworm populations in previous years.

Additionally, Szczepaniec is involved in a recently funded project that will evaluate the use of cover crops to manage corn rootworms.

“These research and Extension projects will help illustrate the extent of this issue in SD, involve producers and crop consultants in disseminating the findings, and facilitate flow of information between SDSU, other institutions and governmental organizations working on this problem. We want to ensure producers in the state have access to the latest recommendations and updates,” Szczepaniec says.

Another research project she is involved with is focused on assessing the non-target – or unintended – effects that insecticide seed treatments may have on unsusceptible pests and beneficial insects. “Insecticide seed treatments are widely used in soybean, corn, and wheat production in South Dakota, and we are studying how these insecticides affect non-target organisms, and directly and indirectly impact environmental and economic costs of raising crops. This is a collaborative research project funded by the USDA and South Dakota Soybean Council, and includes faculty in the Plant Science Department working in the areas of entomology, plant breeding, plant pathology, as well as faculty from other institutions,” she explains.

Raven Industries, SDSU & Research Park Partner To Bolster Precision Ag

Raven Industries, South Dakota State University and the Research Park at South Dakota State University have announced the formation of a new partnership focused on research and development coupled with student experiential learning.

The collaboration among the three entities, which will concentrate on precision agriculture and associated workforce development, will be located in the Research Park at SDSU.

Precision agriculture is a commercialized field management approach that uses applied science such as satellite technology, computerized steering, advanced planter control systems, variable rate applications of seeds and chemicals, and more to help growers and custom applicators become more efficient in their operations to increase yields, enhance returns and maximize use of resources.

“With precision agriculture, you’re really farming by the square meter, rather than quarter sections,” explains Barry Dunn, dean of the College of Agriculture and Biological Sciences. “That’s going to make us better stewards of the land and increase profitability for growers.”

Dunn also notes the quality of the university’s faculty and the value ongoing work in plant and soil sciences, geographical information science, computer science and decision analytics, computational science and statistics, and engineering will bring to the partnership. In addition, the university is adding a new field of study to support precision agriculture.

A recent project involved SDSU faculty and students working with Raven team members to design a multihybrid planter control solution. Through the new partnership Raven will offer student interns hands-on experience in highly technical areas, with the possibility of full-time positions following graduation.

Jay Bender, chair of the Growth Partnership says, “Public/private partnerships like the one with Raven Industries are what the Research Park at SDSU is about – using knowledge generated in a collaborative setting as a catalyst for economic development, and in a very real sense, transforming people’s lives by moving cutting-edge innovations out of the labs and into the marketplace.” The Growth Partnership is a nonprofit organization that oversees the Research Park.

Editor’s Note: Founded in Sioux Falls in 1956 as a manufacturer of high-altitude research balloons to meet challenges faced by the country’s nascent space program, today, Raven continues to address contemporary challenges in areas of safety, global food production, energy independence and resource preservation.
Land-grant universities have a long history of driving social and agricultural change to solve challenges in food production systems. Those same institutions are now having trouble keeping up with the global research programs of private industry. Universities simply cannot compete with the billion-dollar research budgets that are driving the productivity of some companies – Or can they?

What do the land-grant universities of the future need to look like if they are to continue to serve as an economic and food production engine for local, state, regional and even global communities? Outwardly, they may look the same, but they will need to operate much differently. Universities must become more nimble to quickly respond to societal changes caused by rapid advances in technology and management choices.

Being nimble doesn’t mean being unfocused. In fact, nimbleness means just the opposite. It means being visionary, strategic, tactical and practical all at the same time. And, they all must be done well.

Universities are very good at leading strategic initiatives and tactical approaches to solving short-term problems, but often cannot act quickly on their vision because of the complexities induced by their size and structure. The successful university of the future will need to align teams of researchers and educators around strategic goals and quickly realign them as the needs of stakeholders change. Leading universities will succeed at this while maintaining scholarly research engines.

Finally, nimble means not going at it alone. A key component of a nimble university is building strong relationships with faculty and stakeholders based on trust and understanding. The success of a high-capacity, faculty-driven research engine depends on the university’s ability to identify and maintain trust-based relationships with stakeholders with which they share a common vision.

Nimble universities will require diverse leadership that can exercise different tactics depending on the situation. They need to be able to respond to constantly changing dynamics and seize opportunities when they emerge. Too often leaders become focused on achieving a need defined at a particular point in time without regard to how a change in circumstances may require a different focus or outcome.

Effective university leaders must be able to simultaneously act as a mentor, collaborator, facilitator and administrator to build teams and drive change. It means being able to identify with others and the challenges they face – especially if they are being asked to operate outside their comfort zone.

Can university research labs compete with well-funded global research engines? Likely not, but universities can become a valued part of global research companies by focusing on internal strengths, building effective collaborations with stakeholders, and being nimble enough to be able to lead change based on advances in technology and social and economic needs.

“The successful university of the future will need to align teams of researchers and educators around strategic goals and quickly realign them as the needs of stakeholders change.”
Students’ Sustainable Landscape Design Earns Honors

The creation of an outdoor space that features green infrastructure solutions but is also a place to work, gather, learn, and inspire has earned four SDSU students and assistant professor of landscape architecture Matthew James (Plant Science Department) an award for their design.

The team created a proposed environmentally sustainable landscape project between the Northern Plains Biostress Lab and the Horticulture and Forestry building on the SDSU campus. “It’s designed to be an outdoor laboratory to educate the passersby and the campus community on environmentally sustainable landscaping,” James explains.

To retain as much storm water onsite as possible, the team designed bio basins to catch the water and let it naturally infiltrate back to the water table. Their design also captures the rain water for irrigation and uses drought tolerant plant material.

James and students Booker Tieszen, Tyler Landry, David Rutherford and Virginia Torzewski were honored at the American Society of Landscape Architects Great Plains Chapter meeting in Sioux Falls. The SDSU team received a merit award in the professional Category II “Design, Un-built” division. They were one of six merit award recipients.

The next step is to create construction documents while the project generates funding to be implemented.

Kephart Tapped To Co-Chair Biomass Research Committee

Kevin Kephart, South Dakota State University Vice President for Research, was recently appointed to co-chair a federal biomass research committee he has served on since May 2011.

Members of the Biomass Research and Development Initiative Technical Advisory Committee provide expertise in the field of biomass energy and assist the U.S. Department of Agriculture and Department of Energy in fulfilling their obligations for a section of the Farm Bill called the Biomass Research and Development Initiative.

U.S. Department of Agriculture Secretary Tom Vilsack and Department of Energy Secretary Ernest Moniz appointed Kephart to co-chair in May. Ronnie Musgrove, former Mississippi governor, serves as the other committee co-chair for the 32 member committee.

Kephart, also a professor of plant science, is responsible for research administration, technology transfer and business development at SDSU.

Of the committee, Kephart says, “I work alongside nationally recognized experts in the field of biomass energy and have learned a significant amount from them. Committee members represent a network of important contacts for the biomass work we do at South Dakota State.”

Biobased products are industrial products including chemicals, materials and polymers produced from biomass. Biomass is organic material from wood, grass, crop residues and algae. Animal feed and electric power are complimentary co-products of biobased products from the conversion of biomass to fuel. The Biomass Research and Development Initiative carries out research and development of biofuels and biobased products and the methods, practices and technologies involved with their production.

Kephart’s first 30-month term on the committee ends in November, but he anticipates to be re-appointed for another 36-month term.
The SDSU Signature Wool Project is a joint effort between the Colleges of Agriculture & Biological Sciences and Education & Human Sciences and the SD Sheep Growers Association. The items are designed by SDSU students and faculty and produced at the Faribault Woolen Mills plant in Faribault, Minnesota.

- Queen-sized blanket, $250
- Stadium blanket, $140
- Scarf, $60

Each item is made of 100% South Dakota wool and will be sold at the SDSU Foundation and Alumni Association, SD Agricultural Heritage Museum, the SD Art Museum, and SDSU Bookstore, with proceeds benefiting Animal Science and Apparel Merchandising scholarships.
“W hat do you want to be when you grow up?” That’s a question commonly asked of middle school and high school students as they begin to consider their future career plans.

To help students gain insight into the many different career paths available, SDSU’s College of Agriculture and Biological Sciences hosts a variety of summer camps on campus. Offered for youth ranging from 8 to 18 years in age, these camps are designed to be fun, but they also provide many students their first opportunity to visit campus, meet SDSU faculty and explore their career interests.

During the summer of 2013, SDSU’s College of Agriculture and Biological Sciences faculty and Extension specialists were involved in hosting camps related to equine, dairy, human health, livestock judging, natural resources and 4-H/youth leadership.

The various camps are a valuable recruiting tool for departments within the College and often help young people identify their college and career paths.

As Vikram Mistry, Professor and Head of the Dairy Science department at SDSU, points out, “Dairy Camp is an important and effective way for our Dairy Club students to communicate the exciting nature of the dairy industry and the opportunities it offers. Several participants from previous years later returned to SDSU as Dairy Science students and are now actively engaged in the dairy industry.”

Pictured above: Some of the nearly 50 students who participated in this summer’s Avera Health Professionals Career Camp at SDSU in mid-July pause for a photo. The camp is co-hosted by the College of Agriculture and Biological Sciences Department of Biology and Microbiology to highlight medical and health-related careers. Students gained hands on experiences with Avera’s $1 million da Vinci robotic system, as well as spent time in the electrophoresis lab pipetting (see inset photo).
More than 100 youth ages 13 to 19 attended South Dakota 4-H Youth Council’s annual Teen Leadership Conference (TLC) hosted on the campus of South Dakota State University June 3-7, 2013. Throughout the week, teens attended workshops focused on health, community involvement, leadership and careers.

The SDSU Livestock Judging Team offered a new opportunity for youth ages 8-18 to expand their livestock evaluation skills at the first Youth Livestock Judging Camp, held June 13-15, 2013 at the South Dakota State University Animal Science Arena. Forty-seven youth attended the three-day event which involved SDSU animal science faculty and students teaching cattle sheep, and swine evaluation skills, proper note taking and developing strong oral reason skills. Joshua Cribbs, SDSU livestock judging coach, says the goal of the event is to give students a glimpse of SDSU’s animal science program, as well as help prepare youth to represent the state competitively at national livestock judging events.

The tenth annual SDSU Jackrabbit Dairy camp was held June 20-22 on campus for students ages 9 to 15. The SDSU Dairy Club sponsors this annual event for students who want to enhance their dairy cattle skills, learn about the dairy industry and have fun. This year’s camp included 30 students from four states. Activities include showmanship, fitting, judging, and learning more about the dairy industry – including a tour of a local dairy farm. This year’s participants also learned how to make Mozzarella cheese with Lloyd Metzger, Professor of Dairy Science at SDSU.

For students interested in biology, biotechnology and future medical and health related careers, the SDSU and Avera Health Professions Career Camp was held on campus July 17-19, 2013 with 49 participants. Activities included hands on experiences with human-cadaver based anatomy, DNA electrophoresis, an Affordable Care Act case study, athletic training, medical laboratory sciences, pharmacy, nursing and behind-the-scenes tours of Avera-McKennan Hospital and Brookings Chiropractic Center.

During the month of June, students and faculty from the Animal Science Department host a series of horsemanship classes in collaboration with Brookings Parks and Recreation for youth in grades 1-12. Held at the SDSU Horse Unit on Medary Avenue the classes have offered a positive opportunity for youth to learn about and interact with horses, reports assistant professor and Extension equine specialist Rebecca Bott. About 50 youth and 20 parents were involved with the classes in 2013. Younger students learn how to care for and how to enjoy safely riding horses. Students in fourth grade through high school learn about the health, nutrition, and management of horses while further developing their skills in the saddle.

At Oak Lake Field Station located 22 miles northeast of the SDSU campus, a 570-acre facility operated by SDSU features grassland, oak forest, wetland and lake environments, as well as indoor laboratory space. In June, several summer science camps are held at the station for middle school students. Nels Troelstrup, who has served as the station’s director for 20 years, notes that the camps facilitated by SDSU faculty and graduate students help develop students’ interest and curiosity to major in a science field. Additionally, for students interested in natural resources, SDSU range science professors and Extension specialists are involved in Range Camp – held annually in Sturgis in early June – and Rangeland Days and Soils Days which are held later in June but rotate to different locations within the state.

HIGHLIGHTS FROM THIS YEAR’S CAMPS INCLUDE:

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**Editor’s Note: To learn more about these camps for summer 2014, please contact the department affiliated with hosting each camp. For contact information visit the College of Agriculture and Biological Sciences Webpage at www.sdstate.edu/abs/index.cfm**

**Pictured above: Dairy Camp participants practice stretching curd for making Mozzarella cheese. Pictured below: Forty-seven students attended SDSU’s first Youth Livestock Judging Camp in mid-June. The event was hosted by students on the SDSU Livestock Judging Team and animal science faculty. Also pictured: This student’s smile tells how much she enjoyed participating in the horsemanship classes held at the SDSU Horse Unit in June.**
Cattle producers from across the region are taking an active role in helping raise funds for the planned SDSU Cow-Calf Education and Research Facility to be built north of campus outside of Brookings. Through a unique campaign dubbed “Send a Cow to College,” cattle producers have the opportunity to donate the proceeds from a cull cow or group of cull cows to the SDSU Foundation and direct those funds toward helping build the new facility.

The Send a Cow to College campaign was designed so cattle producers can make a tax free donation to the future of cattle research and development within the state, explains Cody Wright, Beef Extension Specialist and professor in the Department of Animal Science at SDSU. “Cull cows represent about 15 percent of the income in a cow/calf operation. Although their contributions to the sustainability of the operation ceases when they are marketed, they now have a way of continuing to contribute to their industry through this campaign,” Wright adds.

The campaign kicked-off July 31 when the first group of cull cows with funds directed toward the SDSU Foundation were consigned and sold at the Mitchell Livestock Auction Market in Mitchell. The 10 donated cows raised about $8,300 for the new facility. The campaign will continue through the fall and winter.

It was a grassroots effort of individuals involved in the state’s beef industry who brought forth the idea for the fundraising campaign. The planning committee to launch Send a Cow to College included Cory Eich, Fred DeRouchey, Sylvia Christen, Ty Eschenbaum, Lewis Bainbridge, Donnie Leddy, Ryan Eichler, veterinarian Dave Barz and Jim Krantz. Many of whom have already donated cull cows of their own to the cause.

“They are the ones who made this idea happen,” Wright says. He adds that support for the campaign and the new Cow-Calf Education and Research Facility is strong across the state. He notes that the South Dakota Cattlemen’s Association and South Dakota Stockgrowers have also been instrumental in promoting and supporting the effort.

The planned, state-of the art facility has an estimated cost of $4.2 million. A little over half of that total has already been raised through the generosity of individuals, financial institutions, businesses and organizations that have already made substantial contributions. However, the funding effort is far from complete.
Building for the Future
The current SDSU Cow/Calf Unit was constructed in the 1950’s and in 2012, about half of it was destroyed by fire. Enrollment of students pursuing degrees in Animal Science has doubled in the past few years – and continues to increase.

“A state-of-the-art facility is needed now more than ever,” says Cory Eich, an SDSU alumnus and lifelong cattle producer.

One of only a few facilities like it in the nation, Wright says the facility will be used by researchers, students and producers for research and educational purposes to strengthen the South Dakota cattle industry. Planned facilities include a main building with conference center, lab space and cattle handling facilities, a calving area with individual pens, a monoslope research building with capabilities to measure individual feed and water intake, and replicated pastures for grazing management research.

Large animal veterinarian, Dave Barz, is a strong supporter of the new Cow-Calf Education and Research Facility. “This Cow-Calf Education and Research Facility is the future of South Dakota’s cattle industry,” says Barz, who has worked with South Dakota cattle producers since 1974, and is a partner in Northwest Vet Supply, Parkston, SD. “This is a dynamic industry. Changes happen rapidly, and it takes units like this to research what works in South Dakota.”

How To Contribute
By participating in the Send a Cow to College campaign, South Dakota livestock producers can assist SDSU in providing Animal Science students with the facilities that will prepare them to be competitive in the ever evolving cattle industry.

South Dakota sale barn owners and the auction barn at Valentine, Neb. are aware of the current Send a Cow to College campaign and are willing to provide the opportunity for cattle producers to participate.

Cattlemen willing to support this cause should complete a Deed of Gift form that is available at their sale barn of choice. This transfers ownership of the cow or cows to the SDSU Foundation and relieves cattlemen of any tax consequences for the value of the animals donated to the campaign. “It’s simple. That’s all there is to it,” says Barz.

The Send a Cow to School campaign will continue through the fall and winter so that cull cows can be donated as cattlemen market their cows throughout the year. If cattle producers prefer, they can donate calves instead of cows following the same process. For those not involved in the cattle business, but would like to support the construction of this center, monetary donations or tax free gifts of grain are also accepted.

Annual Dakotafest Auction Also Supports New Facility
For the fourth consecutive year, an auction was held at Dakotafest in Mitchell with the proceeds benefitting the fundraising efforts for a new Cow-Calf Education and Research Facility at South Dakota State University. The auction was held Aug. 22 and raised $58,395 for the new facility. The auction included 303 items donated by 87 individuals and support from 55 buyers.
South Dakota 4-H Growing

At the 2013 South Dakota State Fair, 4-H exhibits were up 10% over last year, according to Peter Nielson, SDSU Extension 4-H Youth Development Program Director.

“Last year, we made a big deal out of the 16,000 pre-registered exhibits for the State Fair 4-H Division. Those numbers were exciting, however, this year we have more to brag about,” Nielson says of the 17,700 pre-entered exhibits and the more than 10,500 display exhibits which were showcased at the state fair thanks to the work of more than 350 volunteers.

Throughout the state, 4-H membership is up 6% over 2012 with more than 9,000 South Dakota youth participating in 4-H programming.

Additionally at this year’s State Fair, District 9 Rep. Paula Hawks from Hartford (pictured second from right) was crowned Champion of the 5th annual Legislative Beef Show.

As a friendly showmanship competition among state legislators, the annual Legislative Beef Show has become part of the South Dakota State Fair tradition. This year, eight representatives and four senators were paired with 4-H youth livestock exhibitors from across the state.

Rep. Hawks’ youth ‘coach’ was Mitch Prouty, son of Mark and Donna Prouty, of Hamlin County. Hawks received a gold belt buckle and will have her name engraved on the “Legislative Showmanship Champion” traveling trophy.

Research, New Facility At Cottonwood Field Station Celebrated

Beef producers from South Dakota gathered near Philip, SD, on Sept. 7 at the Cottonwood Range & Livestock Field Station operated by SDSU’s Agricultural Experiment Station for an update on research activities and to celebrate the grand opening of a new laboratory facility.

Dean of SDSU’s College of Ag & Biological Sciences Barry Dunn, (pictured), welcomed attendees and noted that the new multi-purpose building with modern laboratory that was recently added to the station’s facilities marks a “reinvestment and recommitment by SDSU to range and livestock research.”

Dunn said, “As grasslands become more scarce, it’s critical we manage these resources and cattle better and better. The work done at Cottonwood will be important to managing grasslands here and in the West; we’ll benefit and the next generation especially will.”

SDSU scientists have been conducting studies related to range and livestock management at the station since 1907.

SDSU Alum Earns National Dairy Shrine Award

South Dakota State University Dairy Production graduate, April Johnson has been named the recipient of the 2013 National Dairy Shrine Student Recognition Award.

Johnson completed her bachelor’s of science in Dairy Production and Agriculture Education, Communication and Leadership with an education specialization in May 2013 at SDSU with an impressive scholastic record that included recognition on the dean's list every semester. She is currently employed as the member services coordinator for Associated Milk Producers Inc. (AMPI) in New Ulm, Minn.

“The Dairy Science Department is very proud of April Johnson’s accomplishments not just as a college student but also in the dairy industry as a whole. She certainly is most deserving of this recognition,” said Vikram Mistry, Professor and Head of the Dairy Science Department.

As an SDSU student, Johnson was involved with judging teams, served as Dairy Club president and earned numerous scholarships.
Land conversion, conservation, animal welfare, water management and water quality, climate change, food safety. The list goes on. Can you think of a time when the teaching and research being done in the College of Agriculture and Biological Sciences has ever been more important?

With many of these issues, there is no clear right or wrong answer. Once the discussion begins, the nuances of each topic — and the way that it can be reasonably approached from very different perspectives — often produces more questions than answers.

As my dad used to say: “If it was a problem that was easy to fix, they would’ve fixed it by now.”

South Dakota State University is where these issues get tackled. Teaching our future leaders, conducting research that will produce answers, and communicating those answers through Extension comprise the unique role SDSU plays today and will continue to play long after our time here.

Why do I love this place? Because what happens here impacts so many. Because I find myself constantly inspired by those around me who care so much about what they do. The tough issues will change over the course of time, but when they do, SDSU will still be here to address them. I am proud of our University. I hope you are, too.

People invest their time and financial resources in causes they believe can deliver results. SDSU can deliver and can make a difference. Please consider the College of Agriculture and Biological Sciences when you are making these decisions.

I hope you all have a great fall and the Jacks win’ em all!

The SDSU Department of Animal Science has hired a graduate student in recent years to coach the Livestock Judging Team. A decision has been made to once again hire a full-time coach to fill this important role within our Department and our College.

A financial commitment from those who understand the value of the livestock judging experience will make this endowment a reality. We are pleased to name the endowment after two of the men who held this position in the past and have positively impacted hundreds of lives along the way.

For more information or to make a contribution, please contact:

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Livestock Judging Endowment
IN HONOR OF
Dr. Paul Kohler & Dr. Dan Gee
SOUTH DAKOTA STATE UNIVERSITY
Department of Animal Science
College of Agriculture and Biological Sciences

Dr. Paul Kohler and Dr. Dan Gee at the SDSU Animal Science Complex
Could you grow 100-bushel soybeans?
Find out how with the newly released iGrow Soybeans Best Management Practices Manual

The iGrow Soybeans Manual is a culmination of a 5-year research project with South Dakota State University (SDSU), focusing on best management practices (BMP) – from planting to harvesting – for soybean production in South Dakota.

Chapters provide information on Growing 100-Bushel Soybeans; Seed Treatments; Herbicide Resistant Weeds; Starter Fertilizers and much more.

The iGrow Soybean BMP Manual was funded by the South Dakota soybean checkoff. Request your complimentary copy from the South Dakota Soybean Research & Promotion Council online at http://sdsoybean.org/BMP or call (605)330-9942.

Digital edition coming soon at iGrow.org.