IT’S OFFICIAL
SDSU EXTENSION LEADS
NATIONAL EFFORTS
ADDRESSING FOOD DESERTS

PICK IT, TRY IT, LIKE IT
HEALTHY EATING
CAMPAIGN LAUNCHED
With those words, U. S. Deputy Secretary of Agriculture Kathleen Merrigan announced in February that SDSU Extension would receive a $4 million grant to address the very real issue of poor nutrition and “food deserts” in the United States. With the grant comes leadership of a nationwide effort to address the issue of poor nutrition here in the breadbasket of the world. So often, it’s easy to assume that we all have full plates and that poor nutrition is only a problem in developing nations. Sadly, that is not the case. It’s a silent problem right here in South Dakota, too. It may be as close as someone who has experienced an unexpected hardship, and now may not be able to afford food.

A food desert is a low-income census tract where a substantial number of residents have low access to a supermarket or large grocery store. Low access in rural areas is defined as at least 33% of the population in that community residing more than 10 miles from a supermarket or large grocery store. Today, poor nutrition may not result in starvation, but rather in obesity or other chronic diseases (like diabetes, heart disease and cancer) based on limited access to healthy food choices. Financially challenged and underrepresented citizens are at the highest risk.

The USDA grant forms a national coalition of universities that includes: Michigan State, Purdue, the University of Missouri-Columbia, the University of Nebraska-Lincoln, The Ohio State University, with leadership to be provided by South Dakota State University. It’s a powerful alliance focused on the domestic problem of access to healthy food.

Deputy Secretary Merrigan continued, “This is a competitive grant. It goes through a peer review process. (SDSU was selected)…because it was the best – the cream of the crop. It was competitive. And this is something that the university should be celebrating. Top notch work.”

The grant will create a program called Voices for Food. Through it, local Food Policy Councils will help communities make policy changes in their local emergency food and supplemental food assistance programs, such as food pantries.

Ultimately, our goal is to help communities identify solutions so everyone can have access to affordable and nutritious food in a socially acceptable manner. Our story on page 2 will give you more insight into this incredible, important work.

Our efforts to address nutrition and hunger issues are built on a number of SDSU Extension programs that are also described in this publication. South Dakota ranks lowest in the nation in terms of fruit and vegetable consumption. A new program called “Pick It, Try It, Like It” is designed to help consumers try new – healthy – food choices. SDSU Extension has also created a series of “local food entrepreneur” workshops that help communities strengthen their food choices. From establishing school gardens or farmers markets, to helping food producers implement food safety and quality standards in packaging, SDSU Extension is playing a strong and vibrant role in communities. Our ongoing commitment to strengthen nutritional choices for low income families continues through the EFNEP and FNP programs in communities across the state.

Our newest effort can be found at iGrow.org. We have rebuilt our Healthy Families learning communities, and now emphasize Personal and Family Finance, Aging, Health and Wellness, and Food Safety. The site will feature food safety virtual labs, and embedded finance tools to assist with saving and spending.

I am particularly proud of the team that was awarded this highly competitive grant. They not only recognized a challenge for citizens in South Dakota, they creatively developed a solution. It is clear evidence that we understand the issues, and are working to help communities find solutions that strengthen and empower us all.
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Helping South Dakota communities gain access to affordable and nutritious food is the goal of several initiatives underway by SDSU Extension.

South Dakota has many communities that are identified as “food deserts,” which are low income communities in which a substantial number of residents are at least 10 miles from a large grocery or supermarket. This limited access to healthy food choices can often correlate to poor nutrition that contributes to obesity, heart disease and other chronic diseases.

SDSU Extension programs and staff have long been working to address food access and food security, and now will be able to broaden their efforts with the February announcement of a $3.96 million grant from the U.S. Department of Agriculture. Agriculture Deputy Secretary Kathleen Merrigan visited the SDSU campus Feb. 27, 2013 to make the grant announcement.

The award is part of $75 million in USDA research grants given to 21 universities across the country from the National Institute of Food and Agriculture. The grants are directed toward research, education and Extension activities to ensure greater food security in the U.S. and around the world.

During the grant announcement, Merrigan noted, “Millions of American households lack the resources to access sufficient food, and many of those, including our children, may go hungry at least once this year. The grants announced today will help policymakers and others better recognize the food and nutrition needs of low-income communities in our country, while improving the productivity of our nation’s agriculture to meet those needs.”

Globally, the population is expected to grow by more than 2 billion people by 2050. Merrigan said, “By investing in the science of America’s renowned land-grant universities, our aim is to find sustainable solutions to help systems expand to meet the demands of growing populations.”

SDSU’s Role
SDSU is the lead institution on its grant with participation from researchers at Michigan State University, Purdue University, the University of Nebraska-Lincoln, the University of Missouri-Columbia and Ohio State University. The
A five-year initiative is titled “Voices For Food: Utilizing Food Policy Councils To Bridge The Gap Between Food Security And Healthy Food Choices.” The project is being led by Registered Dietitian Suzanne Stluka, SDSU Extension Food and Families program director.

Stluka explains that the Voices for Food effort will draw from varied expertise incorporating nutrition, agriculture, youth development, community development, social marketing and evaluation.

She notes, “Until now, urban food deserts have been the focus of most research. As those of us in rural states know, a rural food desert in South Dakota or Nebraska looks much different than an urban food desert in Los Angeles.” She points out that many South Dakota residents may have to travel 50 miles to reach the nearest grocery store.

For this study, researchers will spend the first year identifying two test communities and research protocol in each of the participating states – South Dakota, Indiana, Michigan, Missouri, Nebraska and Ohio.

The following three years will be spent in the learning communities.

SDSU Extension nutrition associate Karlys Wells says the goal is to get more South Dakotans eating healthier – which ultimately results in healthier people.

A tagline of “Pick It, Try It, Like It” is being used with the in-store grocery promotions for 2013.

Wells notes that through the in-store demonstrations and materials they hope consumers will have more awareness that they may not be eating enough fruits and vegetables, and through the nutrition and recipe information being offered they become more comfortable with including more vegetables and fruits in their diet.

She adds, “We’re excited to be partnering with the South Dakota Department of Health for this program. It allows us to reach a lot of stakeholders.”

From March through August 2013, a research study is also being conducted in conjunction with the Harvest of the Month in-store promotions. About eight stores will participate in the study with some stores only featuring in-store signage about the featured fruit or vegetable; some stores featuring signage and sampling; and some stores having signage as well as the Harvest of the Month program presented within their local school.

Wells explains that the focus of the research is to evaluate which method has the most influence on vegetable and fruit purchases over the six month time-frame for each store. The information gathered will be utilized in planning program efforts for 2014.

For more information about healthy food choices, visit www.igrow.org; click on the Healthy Families tab and then select “Foods and Nutrition.”

IN STORES NOW:
“PICK IT, TRY IT, LIKE IT” FRUIT & VEGETABLE CAMPAIGN

As an on-going example of SDSU Extension’s efforts to help South Dakota consumers make healthier food choices you can look to a unique program in several grocery stores across the state.

Food and nutrition assistants have been in stores featuring and sampling various food items and offering simple recipes, and nutrition information to consumers for the past few years. The effort was initially funded through a Supplemental Nutrition Assistance Program Education (SNAP-Ed) grant to the SDSU Extension Family Nutrition Program.

For 2013, the program has evolved to focus on vegetables and fruits – particularly those that can be grown in South Dakota, and it is being funded in a partnership between SDSU Extension, SNAP-Ed, and the South Dakota Department of Health.

Patterned after the Harvest of the Month program featured in several schools, once a month signage, recipe cards and demonstrations and sampling is done to highlight a specific vegetable or fruit. For example, in March cabbage was featured. Participating community grocery stores have included Rapid City, Sisseton, Winner, Watertown, Mitchell, Pine Ridge and Brookings.

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developing food policy councils that will be tasked with increasing the access and availability of nutritious food. This may include setting up food pantries or changing the way existing food pantries operate. Throughout the research, SDSU Extension will play a key role in providing guidance to food policy councils, integrating nutrition education resources into community grocery stores and food pantries, and aiming to increase healthy choices.

Over the past year, a series of “local food entrepreneur” workshops have been held in communities across the state. Topics vary based on the interest from the community, notes Zdorovtsov, but the feedback is always positive. “We held one recently on marketing direct to a grocery store in Sioux Falls, and the participants said, ‘We’ve been wanting a workshop like this for years.’”

Other topics covered have included marketing via a Community Supported Agriculture (CSA) model, business management, starting a commercially licensed kitchen, home processing food laws and food safety at farmers markets.

A variety of Extension specialists have been involved with the food entrepreneur workshop effort, allowing three to four sessions covering various topics to be held in participating communities. Zdorovtsov points out that by offering various topics the workshops offer something for everyone — from beginning food entrepreneurs to those looking to expand their locally grown or processed food business to the next level.

Stluka states, “A task of this size requires a team of specialists with a diversity of backgrounds and talents. Within Extension we have that team in place and ready to serve. We are eager to see local changes that will increase the availability of healthy food choices over the long term. But, we won’t always be there, so we want communities to find and develop solutions they will be comfortable maintaining long after we’re gone.”

Barry Dunn, Dean of SDSU’s College of Agriculture and Biological Sciences concludes, “Our goal is to help communities identify solutions so everyone can have access to affordable and nutritious food in a socially acceptable manner. Extension coaching, nutrition education and development of community food pantry solutions are the tools. SDSU Extension and our partner land-grant universities across the breadbasket of America will work to develop a community-based template for success.”

Editor’s Note: Of the nearly $4 million grant, about $400,000 each year will remain in South Dakota to fund the research project, which will include a full-time nutrition coach and provide $20,000 to each of the two selected food desert communities over five years for the implementation of food security and healthy food choice solutions.
Students Experience Argentine Agriculture

Through his education and experiences at SDSU, Alex Hohertz, an animal science major from Minnetonka, Minn., has gained a global perspective on the industry he plans to pursue his career in. This winter, Hohertz was one of 21 students from the College of Agriculture and Biological Sciences who traveled to Argentina to learn about agriculture in South America.

“The trip really opened my eyes. I realized that the way we do things in the U.S. isn’t necessarily the right way, or best way. It taught me that if things aren’t working out the way they’ve always been done, I can always try something different,” Hohertz says. He will graduate in May and has a job lined up working as a ranch manager.

Providing students with a new perspective on the industry of agriculture and life outside of the United States is the primary focus of the ABS 482/582 class and the international travel experience it provides, says Julie Walker, SDSU Extension Beef Specialist and co-instructor of the course.

“We work in a global economy. For those of us in the agriculture industry, it’s no longer just what is going on in the U.S. that impacts us,” Walker explains. “Students need to understand how other countries impact agriculture in South Dakota and the U.S.”

This was the seventh consecutive year that SDSU students have traveled to Argentina to tour agriculture operations – dairies, feedlots, row-crop farms – and historical sites like the Pink House, Recoleta Cemetery to visit Eva Peron’s Tomb, La Boca and Old Market Place. The trip is designed to expose students to the culture, politics and markets of Argentina.

Prior to gaining a first-hand perspective of Argentina, the students enroll in the semester-long class during the fall, ABS 482/582. Not your typical university course, this is an interactive class where students teach each other about various aspects of Argentina through class presentations on the culture, politics, farming and ranching practices and history of the land and its people. Walker and her co-instructor, Stacy Scramlin, assistant professor of Animal Science, also invite speakers from Argentina to visit with the students and answer questions.

“The class gets the students over some initial culture shock, and it allows them to prepare questions to take with them on the trip which occurs in January,” Scramlin explains.

On each day of the trip, students teamed up and were responsible to introduce tour guides, take photos and write a daily blog.

Larissa Neugebauer, a senior dairy production and agriculture leadership major, says she appreciated the way ABS 482/582 prepared her. “I’m a person who needs to know what to expect, so I appreciated the fact that we had to take this class before going,” says Neugebauer. “Because of class discussions, I also had some unanswered questions that I was able to bring with me and ask the Argentine farmers.”

A dairy kid from Parkston, S.D., Neugebauer was amazed by both the differences and similarities she witnessed. She tells, “Because of the high taxes the Argentine government puts on commodities like soybeans, we saw dairy farmers grazing their cows on soybeans. I’d never dream of putting our cows out on soybeans; they are such a high value commodity in the U.S.”

But she adds, “Even though they are in a completely different part of the world, the fact that we’re all working toward the same goal to feed the world unites us. They are just as passionate about the industry of agriculture as we are.”

Aha moments like this are what Walker enjoys most about the international tour. “Witnessing the moment when a light bulb comes on and a student has a new understanding or appreciation for something because of an experience they had is pretty amazing,” Walker says. “By the time the trip was over, it was interesting how many of the students commented how fortunate we all are to live in America.”

While most of the students who went on the tour were agriculture majors, the group was diverse and included students pursuing degrees in agronomy, dairy science, animal science, geography, economics, general agriculture and agriculture leadership.

Students each paid $4,400 to cover expenses of the trip. To learn more about their international agriculture tour, visit the student’s blog at http://sdsu2013argentina.blogspot.com.
Ag’s $21 Billion Boost To South Dakota’s Economy

Agriculture and its related industries provided a $21.408 billion dollar impact on the economy of South Dakota in 2010, according to an article written by Gary Taylor, Associate Professor of Economics at South Dakota State University.

The article describes the impact agriculture production and processing has on the economy of South Dakota. According to Taylor, production agriculture’s direct effect on the South Dakota economy was $8.335 billion.

“The $8.335 billion represents the value of products produced. Additional impacts of $3.417 billion results from businesses supplying inputs along with induced effects of increased household spending of $1.647 billion bringing the total to $13.399 billion for production agriculture,” Taylor says.

He says value added agriculture added $8.009 billion in economic activity. Taylor explains, “This economic activity is from manufacturing/processing industries that can be clearly identified as being related to agriculture.” Ethanol, animal harvest, cheese, and feed manufacturing accounted for approximately 84% of the value added impact.

“The total impact of $21.408 billion makes the agricultural sector the largest single sector of the South Dakota economy, at approximately 19.8% of total output,” Taylor concludes.

To read the complete article, “Economic Impact of Agriculture on South Dakota,” visit iGrow.org.

Livestock Judging Team Reunion Is July 19-20

A reunion for past members of SDSU livestock judging teams will be held in Brookings on July 19-20, 2013. The event will kick-off with a social on Friday evening and will include tours of campus facilities on Saturday as well as a judging contest, banquet and auction. Proceeds raised will support the Livestock Judging Endowment that has been established at SDSU in honor of Paul (Buck) Kohler and Dan Gee, both of whom were former coaches of the SDSU livestock judging program. Both Kohler and Gee will be in attendance at the event.

The Kohler-Gee Endowment has been established to ensure that SDSU students can experience consistent coaching and leadership development in the SDSU livestock judging program, and from those experiences become tomorrow’s leaders in their careers and communities. The goal is to raise $1 million for the endowment.

The reunion activities will be held at the SDSU McCrory Visitors Center. For more information about the event, please email sdsulivjudging@gmail.com.

Swine Producers Encouraged To Enroll In PRRS Control Project

Porcine Respiratory and Reproductive Syndrome (PRRS) is a disease that costs the swine industry about $640 million annually or $1.8 million per day. Through SDSU Extension a voluntary regional project is underway to aid in the control of this costly disease.

The Southeast South Dakota Porcine Respiratory and Reproductive Syndrome Area Regional Control Project is a collaborate effort for the industry. The goals of the project are to: 1) identify all swine herds in the area, 2) invite producers to sign a participation agreement that allows their PRRS status to be shared with other producers, 3) determine the PRRS status of each herd, 4) encourage elimination if the herd is positive, 5) encourage improved biosecurity in all participating farms.

The southeast area encompasses counties south of State Highway 34 to the Nebraska border and from the Minnesota-Iowa border west to the Missouri River. Swine farms outside the area are also encouraged to participate.

All involved receive a monthly newsletter containing information on new farms that are participating, PRRS status changes and other information regarding PRRS.

For more information contact project coordinator Ashley Gelderman, SDSU Extension swine field specialist at (605)782-3290 or ashley.gelderman@sdstate.edu.
SDSU Ag Experiment Station Releases Oat Cultivars

After several years of research, the South Dakota State University Agricultural Experiment Station recently released oat cultivar, Horsepower and a new multi-purpose oat variety, Goliath.

Horsepower has exceptional yield potential and the best straw strength out there. Goliath is a multi-purpose oat that can be used for grain production, forage or straw,” says SDSU oat breeder Lon Hall. Hall says Horsepower and Goliath were at least 10 years in the making.

SDSU is one of only a few oat breeding programs in the nation - making the work Hall focuses on extremely valuable to the state’s forage producers, says Daniel Scholl, director of the South Dakota Agricultural Experiment Station and associate dean of Research for the College of Agriculture and Biological Sciences.

Scholl explains that public breeding programs are one of the mainstays of South Dakota’s agriculture experiment station. Unlike the commercial research and development poured into commodities like corn and soybeans, he said there are no private or commercial breeding programs which focus on oats. And, there are no checkoff dollars assigned to oat research and development.

“Future improvements in oat cultivars are entirely dependent upon programs found at land-grant universities, like SDSU,” Scholl adds.

Now that it has been released into the South Dakota Crop Improvement Association seed certification program, it is currently in the foundation seed increase program. Horsepower will ultimately be made available as certified seed through the efforts of the South Dakota Crop Improvement Association for the 2013 growing season.

To learn more about these new oat cultivars, visit iGrow.org.

SDSU’s Sheep Unit Honored For 123 Years

SDSU’s Sheep Unit was honored for having the only Centennial Hampshire flock in the country. In 1898 SDSU (then SDSC) purchased 11 Hampshire ewes from Elon Pettigrew of Flandreau, SD; which was the impetus for Hampshires being raised at SDSU for 123 years.

Through 2011, 2,646 SDSU Hampshires have been registered. The primary roles of purebred SDSU Hampshires are to provide a superior terminal sire breed of sheep for undergraduate teaching and outstanding quality seedstock to purebred and commercial sectors of the industry. Instructional uses include judging teams, teaching courses and Little I. The flock has been integrated into various research projects and extension activities.

Jeff Held oversees the Sheep Unit, while Ann Kolthoff is manager.

First Jackrabbit Dairy Drive Held

The First Jackrabbit Dairy Drive was held during the South Dakota State University Women’s Basketball final home game vs. Omaha on Feb. 21 at Frost Arena.

The event was designed to recognize the growing dairy industry in South Dakota, while also giving fans the opportunity to participate in several fun events to help raise funds that will go toward building a new Dairy Production Research facility at the SDSU Dairy Unit.

This event was sponsored by South Dakota dairy farmers through Midwest Dairy Association Districts and South Dakota Dairy Producers, and plans are for it to become an annual activity.

“This event will help support the dairy industry of the region through research and teaching. An updated dairy research and training facility is needed for providing state of the art hands on training in dairy production. This will complement the new Davis Dairy Plant that was recently built with the support of industry, alumni and producers,” said Vikram Mistry, SDSU Dairy Science Department Head.

Third Thursday Educational Series Launched At McCrory Gardens

McCrory Gardens has debuted a new educational program series that will be presented on the third Thursday of each month. Each program will be instructed by staff of McCrory Gardens, SDSU Extension specialists, Master Gardeners or other South Dakota State University faculty. The programs will be open to the public. Each program will cost $3 for members of the Friends of McCrory Gardens, $5 for non-members. The Third Thursday Series is designed for gardeners of all levels.

For more information contact David Graper at david.graper@sdstate.edu or call McCrory Gardens at (605)688-6707.
Dawn Stephens, a curator at the South Dakota State Agricultural Heritage Museum on the SDSU campus, admits that when most folks think of an ag museum they envision antique tractors. You will find those historic tractors at the South Dakota State Agricultural Heritage Museum – but there’s a whole lot more.

The museum is dedicated to preserving South Dakota’s rich agricultural history and rural heritage. Collections and exhibits depict the progression of technology as well as advancements in crop and livestock production. In addition, the exhibits highlight human experiences and cultures that were shaped by the state’s rural environment.

Examples on exhibit include a man-powered threshing machine and horse drawn equipment as well as early models of tractors and farm equipment. There’s also an original 1882 claim shack, a recreated 1915 farmhouse, and an abundance of historic photographs and documents. The Beckman Archive is a comprehensive collection of tractor and machinery manuals. The museum’s Photograph Archive contains over 70,000 agriculturally related images. An especially popular exhibit features “South Dakota Made” items – from Briggs and Stratton small engines to Dakota and Farm Horse tractors.

Most importantly Stephens emphasizes that many pieces exhibited in the museum are labeled and provide information about what the item was used for during its time and why it was important. “Through our exhibits the story of agriculture is told and connections are made,” Stephens says.

Stephens notes that only a few museums in the U.S. are devoted to agriculture and have as comprehensive a collection as the South Dakota State Agricultural Heritage Museum. She estimates the museum has as many as 90,000 pieces from sewing thimbles to steam tractors in storage.

Also unique, the South Dakota State Agricultural Heritage Museum is administered by the SDSU College of Agriculture and Biological Sciences – a rarity for many colleges to have their own museum.

Barry Dunn, dean of the College of Agriculture and Biological Sciences, notes that the museum is an important part of the state’s ag industry. “The museum is in a unique position to show how things used to be on the farm and how science and agriculture have merged over the years to help the industry progress and create our modern day food production system,” he says.
One display in the museum portrays how many people one farmer feeds. The display looks at the past 100 years and depicts how increases in production – via science and technology – have also increased the number of people a farmer can feed with the crops and livestock he raises.

Another visual example of how agriculture has evolved will be showcased this summer with the exhibit of a fully-restored 1904 corn picker invented and patented by the Overby brothers in 1904. Once pulled by 6 horses, this historic piece was donated by the Overby family from Mellette, SD, and restored by Bill Lee recently retired Exhibit/Restoration Curator at the museum.

Dunn points out that the corn picker is an example of how corn production has progressed from 1904 – a time when there was little corn and very low yields by today’s standards. Then, in the 1920s and 30s, hybridization of corn changed the crop, and Dunn says, “Today’s substantially higher yields are a direct result of that science.”

Stephens shares that another unique story about the corn picker is that earned the attention of a team of IH engineers – who were caught in the building with the corn picker one night in 1904 “looking it over” as they prepared to build their own corn picker.

So, on your next visit to Brookings, include a visit to the South Dakota State Agricultural Heritage Museum on your itinerary. It’s more than just antique tractors.

Throughout the year, the museum offers a variety of programs including book signings, exhibit openings and lecture series. The Museum store offers a selection of South Dakota Made products including books, children’s toys and holiday ornaments. The museum is located on the northwest corner of Medary Ave and 11th Street. Admission is free. For hours and more information visit www.agmuseum.com or find them on Facebook.

Below: Various equipment, photographs and stories portraying agriculture’s historical changes are among the exhibits at the South Dakota State Agricultural Heritage Museum on campus in Brookings.
A well-known proverb suggests “There’s no substitute for experience.” Students in the Beef Seedstock Merchandising class offered through SDSU’s Animal Science Department can readily agree.

Through the class each spring, students are gaining firsthand experience by organizing, promoting and conducting the Department’s annual bull sale featuring progeny from the SDSU cowherd. This year’s sale included 33 Angus and SimAngus bulls and was held on Friday, April 5 at the Cow/Calf Unit near campus.

Taylor Geppert, a senior animal science major from Kimball, SD, says she has enjoyed the class this spring because of the opportunity to learn about putting a successful bull sale together from beginning to end.

Geppert’s family holds their own private treaty club calf sale each fall, so she had some knowledge of the livestock marketing process. But through the class, Geppert says she gained a new appreciation for “how much planning needs to be done in order to get everything ready.”

Animal Science professor Cody Wright oversees the students in the Beef Seedstock Merchandising class. He explains that the student’s role includes everything from designing ads and creating videos for YouTube to promote the bulls, as well as creating a catalog with each animal’s pedigree and performance data. Students also contact past and prospective buyers and handle selling details on the day of the sale.

The class averages 12 to 15 students, which allows for three committees to be created and each student to get ample hands-on experience. This year’s committees included catalog, video and customer service.

Throughout the semester-long class, Wright also uses guest lecturers – some who visit the classroom, some via distance education – to expose the students to industry experts on the topics of advertising, cattle marketing via video, cattle catalogs, and sale management in general.

Jamie Lewis, an animal science major from Rapid City, S.D. who participated in the class in 2012, has now graduated and returned to his family’s seedstock operation. He values the knowledge from top industry leaders and the perspective on marketing options that were provided. “It was a very hands-on class. I gained new insight as a merchandiser,” says Lewis, who notes that the social media aspect and information on the importance of good photos are what stuck with him most. He is now applying his marketing knowledge to his family’s own production sale.

This year, Geppert was a member of the video committee which was responsible for creating 30 to 60 second videos of each bull. The videos were then put on YouTube for prospective buyers to view prior to the sale.

On the day of the sale, a limited auction is held. Students work with Wright and SDSU Cow/Calf Unit manager Kevin VanderWal to set minimum prices on each bull and interested buyers list their names beside the bull they are interested in purchasing. If more than one buyer is interested in a bull, a bid-off auction is held.

The rewarding part of the class is evident on sale day, says Wright. “Seeing the students talk to customers and seeing the bulls sell completes the process of these students becoming livestock marketers.”

He adds that the students are always enthusiastic about the class and many of them are eager take the marketing skills they’ve learned back to their family operations.

Another highlight for the class is seeing the bulls go on to be successful in the beef industry. The top selling bulls from the 2011 and 2012 sales – both of which sold in the $10,000 range – are now in stud with two prominent artificial insemination companies. S D S Graduate the top selling bull at the 2011 sale is in stud with Genex and S D S In Force the top selling bull at the 2012 sale is now featured in the Select Sires AI catalog. Both are SimAngus bulls, and both were purchased by Gibbs Farms of Alabama and Cow Camp Ranch from Kansas.

Editor’s Note: Proceeds from the annual SDSU bull sale are reinvested in the SDSU cow/calf herd. When the new Cow/Calf Unit is built north of campus, the sale will be moved to that location.

At Left: SDSU students gain hands-on marketing experience through planning and conducting an annual bull sale.
South Dakota’s state bird – the Chinese Ringneck Pheasant – is a revered part of the state’s culture. Whether for viewing or hunting, pheasants are one of South Dakota’s signature “crops” and are enjoyed by residents and visitors alike. Pheasant hunting generates $220 million annually for the state’s economy.

But with the rise in grain prices over the last several years, an increasing number of the state’s grasslands and Conservation Reserve Program (CRP) acres have been converted into cropland – leaving pheasants in the lurch.

“Native grasslands and CRP provide nesting areas for pheasants. With those acres disappearing, the state’s pheasant population has begun declining,” explains Chuck Dieter, a professor of wildlife science in the Natural Resource Management Department at SDSU.

Recognizing this trend, SDSU wildlife researchers wanted to evaluate if other landscapes – specifically winter wheat – could provide adequate nesting habitat for pheasants when traditional grassland acres are limited.

Dieter explains that North Dakota research had indicated winter wheat provided good nesting habitat for ducks. He adds that because winter wheat is planted in the fall by spring it provides residual cover for nesting and there is little equipment disturbance in the field. Pheasants rarely nest in corn or soybean fields because they have a lot of bare ground.

“Residual cover and minimal disturbance in spring is needed for pheasants to nest successfully,” Dieter notes. Pheasants typically nest from mid-May to mid-July, with peak hatch in mid-June. Dieter adds that pheasants will re-nest as much as three or four times if their early nests are destroyed.

In 2011 and 2012, the South Dakota Game, Fish & Parks funded a study in central South Dakota’s winter wheat dominated landscape to analyze pheasant nesting success. Field work was collected by SDSU master’s student Brian Pauly (pictured above) with oversight from Dieter and SDSU wildlife and fisheries professor Kent Jensen.

Over the two years, radio transmitters were attached to nearly 300 hens (130 in 2011 and 144 in 2012). The hens were followed from March through September.

The researchers determined that pheasants preferred nesting sites with high patch density (i.e. vegetative cover) such as idle grasslands. While winter wheat was not selected for, it was utilized at higher proportions when it was available, says Dieter.

He adds that nest success rates were similar between idle grasslands and winter wheat fields until about mid-July when wheat harvest occurred.

From this information, Dieter suggests landowners should consider winter wheat plantings as a suitable habitat for pheasants. However, delaying winter wheat harvest – as well as harvest of hay land and road ditches – as late as possible is important for pheasant survival.

Dieter concludes, “Grasslands are still very important for pheasant habitat, but winter wheat can provide a wildlife friendly farming practice.”

Editor’s Note: Additionally, 84 pheasant chicks were radio collared during the two year study to look at survivability. Overall the researchers found that mortality of pheasants is high – primarily due to predation. For more information about this research email Charles.Dieter@sdstate.edu or call (605)688-4555.
Tom Cheesbrough was recently named the Associate Director of the South Dakota Agricultural Experiment Station. He will help with faculty development and identification of grant opportunities, oversee capital improvement projects at experiment station facilities as well as provide oversight for plant-related research projects involving experiment station faculty. He will also assist Experiment Station Director, Daniel Scholl and Dean of the College of Agriculture and Biological Sciences, Barry Dunn with ongoing activities in the ABS College and experiment station.

Cheesbrough tapped as associate director for SD agricultural experiment station

Cassady received his PhD, in Animal Science in 1999 from the University of Nebraska-Lincoln. He also received his master’s in Animal Science from the University of Nebraska-Lincoln and his bachelor’s in Animal Science from Iowa State University in 1993.

Prior to joining the faculty at SDSU, Cassady was the Executive Director of the Beef Improvement Federation, served as an Associate Professor in Animal Science at North Carolina State University, was an Assistant Professor in Animal Science at North Carolina State University and worked as a Research Associate in Genetics and Breeding for the Agricultural Research Service with the U.S. Department of Agriculture at the Meat Animal Research Center in Nebraska.

Joe Cassady

Cassady named new animal science dept. head

This is a plant physiologist with USDA. David Clay is director of the South Dakota Drought Tolerance Center and interpreted the isotope data. Sharon Clay is a weed science professor at South Dakota State University.

The research work described in the paper was funded in part by the South Dakota Corn Utilization Council, USDA Seed grant, USDA -NRI grant, and SD Agricultural Experiment Station. This is the second time SDSU faculty, led by Sharon Clay, have been recognized with first place in this category, in the last five years. Only one other WSSA member has received this award twice.

Frank Forcella was one of three individuals to receive the Fellow award. He is an adjunct professor at SDSU and the University of Minnesota.

Weed science contributions recognized

The Weed Science Society of America recognized several South Dakota State University Plant Science faculty and researchers for their outstanding contributions to the field of weed science during the organization’s annual meeting held in early February.

A team of SDSU plant science faculty and research associates received the Outstanding Paper Award for their published work: Microarray and Growth Analyses Identify Differences and Similarities of Early Corn Response to Weeds, Shade, and Nitrogen Stress. The paper’s authors were Janet Moriles, Stephanie Hansen, David Horvath, Graig Reicks, David Clay and Sharon Clay. Moriles, a graduate student, collected the data and Hansen and Graig Reicks, research associates, assisted with field and lab experiments. Horvath is a plant physiologist with USDA. David Clay is director of the South Dakota Drought Tolerance Center and interpreted the isotope data. Sharon Clay is a weed science professor at South Dakota State University.

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Nine Earn Special Recognition

Nine faculty from SDSU’s College of Agriculture and Biological Sciences (ABS) were honored for their successes in the classroom and the research laboratory during the fifth annual Celebration of Excellence on Feb. 11, 2013.

The highest honors went to two SDSU researchers who have done their best to add values to South Dakota crops. Professors Michael Brown of the natural resource management department and Kasiviswanathan Muthukumarappan of the agricultural and biosystems engineering department (pictured) received the title of distinguished professor in recognition of their significant contributions to research and education. This award is the highest level of scholarly distinction granted to a faculty member.

Both researchers have worked on finding new uses for dried distiller’s grain – a byproduct of the ethanol industry, and soymeal – a byproduct of the soybean oil industry.

Brown, who joined SDSU in 1994, has been at the forefront of efforts to make commercial fish farms more economically viable by using plant-based protein to make high quality fish feed.

The scope of Muthukumarappan’s bioprocessing research runs the gamut from food grains to grasses and other nonedible alternative fuel sources. He became a faculty member at SDSU in 1997.

Additional Awards

• F.O. Butler Awards are presented to faculty who achieve the highest levels of excellence and make lasting contributions to the well being of South Dakotans; the two ABS faculty who received this award were Scott Pedersen, associate professor, biology and microbiology, for Excellence in Teaching and C. Gregg Carlson, professor/Extension specialist in plant science, for Excellence in Service. Pedersen has taught gross anatomy, developmental biology, evolution, anatomical dissection, and the undergraduate teaching internship at SDSU for 14 years. He has become well known for his teaching antics in the classroom. Carlson has taught SDSU’s precision farming course since the early 1980s and counts most of South Dakota’s practicing agronomists as his previous students.

• The Edward Patrick Hogan Award for Teaching Excellence is named and endowed in honor of Ed Hogan, a 36-year professor of geography and university administrator. Donald Auger from the ABS College received this award. Auger, an associate professor in the department of biology and microbiology, teaches hundreds of students each semester in fundamental genetics courses in biological sciences and works hard to challenge the academic and professional aspirations of his students.

• The 2012 Distinguished Researchers and Scholars, selected by the ABS college were Ying Fang, associate professor, department of veterinary and biomedical sciences, who’s research focuses on the molecular characterization of viral pathogens, development of vaccines and diagnostic assays. She has been recognized as one of the leading scientists in the field; and Jai Rohila, assistant professor, department of biology and microbiology, who’s research program is focused on sustainable agriculture under variable climatic conditions. An international expert in the use of biotechnological techniques for the improvement of major crop plants with an aim to eradicate world hunger, his work has resulted in production of drought- and salt-tolerant aromatic rice lines.

• Additionally, David Willis, distinguished professor and head of the department natural resource management, received the Excellence in Graduate Student Mentoring Award and the Dr. Harold and Barbara Bailey Award for Excellence in Academic Department Leadership. Willis facilitated the coming together of academic units in wildlife and fisheries sciences, biology and microbiology, range science and horticulture, forestry landscape and parks in 2011-2012. Rebecca Bott, assistant professor and Extension equine specialist, department of animal science, received the Award for Excellence in Building Inclusive Community. Bott has led students and colleagues in the development of an innovative equitarian initiative on the Cheyenne River and Pine Ridge Indian reservations aimed at optimizing reservation horse health and well being.
In the early 1970s, Walt Bones returned to his family’s Parker farm. Fresh out of college, the 20-something Bones joined his brothers and ranks of other young South Dakotans to pursue careers in the state’s No. 1 industry.

Today, almost 40 years later, South Dakota’s Secretary of Agriculture sees a challenge in the fact that far fewer of the state’s young people return to their families’ farms and ranches while at the same time he and his peers continue to age. The average age of South Dakota’s agriculture producers is 57.

“The future of our industry depends on new blood,” Bones notes. “I think we almost lost a generation of farmers and ranchers during the years when farming and ranching wasn’t as profitable as it is today. Many producers encouraged their kids to get a good education and make careers off the farm.”

For the young South Dakotans who decide to make a career in production agriculture, Bones says opportunities abound - but so do the risks. From securing the land and capital necessary to get a start and managing the financial and regulatory paperwork; to navigating volatile input and commodity markets.

This is where SDSU Extension can help, says Rosie Nold, SDSU Extension agriculture and natural resources program director.

“We are here to support South Dakota’s agriculture producers - with a focus on young and beginning producers,” Nold says. Programs like Ag CEO, beefSD and sheepSD have been developed to fulfill the land-grant mission of providing the research and resources necessary to sustain South Dakota’s agriculture industry.

Through these and other programs, SDSU Extension staff deliver research-based information as well as provide mentoring and networking opportunities to young and beginning farmers and ranchers.

Ken Olson, SDSU Extension beef specialist, explains, “SDSU Extension is instrumental in helping young producers gain a better understanding of the opportunities available to them, as well as the challenges.”

Olson is among a team of SDSU Extension specialists who coordinates beefSD. Launched in 2010, beefSD is a three-year program designed for...
beginning ranchers. It works with beginning-rancher participants from 30 cattle operations who meet several times a year for a variety of educational activities. These activities focus on innovative business and management techniques and introduce beginning cattle producers to veterans of the industry.

Jimmie Kammerer, 32, says she and her husband, Riley, 34, have been working to build up their cattle herd since they married in 2004. The couple and their two young daughters recently joined Jimmie’s family’s operation in western South Dakota.

Kammerer says, “We’ve learned so much about the beef industry as a whole - gained the big picture and global perspective of the industry. Getting to visit with people about the way that they ranch and visit their ranch to see firsthand how they make things work is invaluable.”

Connecting beginning agriculture producers with established producers as well as public and private resources plays a key role in these SDSU Extension programs, says David Ollila, SDSU Extension sheep field specialist and coordinator of the sheepSD program. Organized in much the same way as beefSD, sheepSD was developed for the state’s young and beginning sheep producers.

“The purpose of these programs is to do everything we can to help young people find success and profitability in South Dakota’s agriculture industry,” Ollila says.

Lealand Schoon was looking for a way to reconnect with established sheep producers when he signed up for the sheepSD program. Schoon grew up on a sheep ranch near Lemmon, but his family got out of the sheep business when he was in high school. He has spent the last 21 years working as a grassland manager for the Natural Resources Conservation Service. However, Schoon never lost interest in sheep production. When the opportunity arose for him to get back into sheep production by raising them with a friend’s cattle, he took it.

“As a new producer entering the industry again, I knew the opportunities would present themselves,” Schoon says. “Through sheepSD I’ve been able to network with experienced sheep producers and ask them the tough questions.”

SDSU Extension cow/calf field specialist Adele Harty notes that providing an environment where beginning producers feel comfortable asking the hard questions is the value of these Extension programs. “One of the program’s goals is for beginning producers to learn from the mistakes of others - and hopefully save them from repeating them.”

South Dakota’s Secretary of Agriculture Walt Bones sees the potential for the future as well, saying, “We are all charged with leaving this industry better than when we entered it. By supporting the next generation of South Dakota’s producers, we are ensuring a strong future for South Dakota’s agriculture industry.”

To learn more about SDSU Extension and the many programs which support young and beginning farmers, visit iGrow.org.
The science to create jet fuel from non-food oilseeds already exists, and the Department of Defense – particularly the U.S. Navy – is eager for the earth-friendly product.

Now, the agricultural sector must catch up with the demand for biofuels by determining production practices suitable for these oilseed crops, evaluating efficient extraction methods to recover the oil, and identifying the economic potential these crops offer.

With an annual appropriation of $450,000 for the next three years for the South Dakota Oilseeds Initiative from the South Dakota State Legislature, SDSU researchers are diligently working to provide that information.

For Fiscal Year 2013, an additional $809,000 in matching funds is helping leverage SDSU’s research efforts. Matching funds have come from the North Central Sun Grant Center, South Dakota Oilseeds Council, South Dakota Soybean Council and the South Dakota Board of Regents Performance Enhancement fund.

The oilseeds being studied include carinata, safflower, flax, sunflower, brown mustard, rapeseed, cranbe, camalina and field pennycress. William Gibbons, a professor and researcher in SDSU’s Department of Biology and Microbiology, notes that these crops are not typically used for human consumption because they have factors that make them difficult to digest.

But their potential as jet fuel could be limitless. Gibbons points out that military uses of the fuel from these oilseeds may just be the tip of the iceberg. Major commercial airlines are also interested in the “green” alternative biofuels offer – and as technology advances these infrastructure-compatible biofuels have even broader applications in the general transportation sector.

Because most of these crops are new to the region, field studies are being conducted to learn more about crop suitability – from soil types and moisture regimes to rotations with other crops. Plant breeding and genetics is also being explored to identify plants that produce more seeds or have better canopies.

A new combine specifically for the harvest of oilseeds has been purchased to support the SDSU plot and field trial work being planned.

In the future, research with herbicides and pesticide management must be done because many of the existing products are not currently labeled for these oilseed crops.

Demonstrating suitability for crop insurance eligibility of oilseed crops will also need to be addressed.

Research collaborators from Minnesota, North Dakota, Montana and Wyoming are also involved in the oilseed production research being conducted, as are several private industry companies.

**Studying the extraction method** of the oilseeds is also part of the SDSU work being done by researchers in the Ag & Biosystems Engineering Department. Gibbons explains that three different methods of extraction are being explored from a simple – and inexpensive – cold press process to more intensive methods that can extract 80 to 100% of the oil from the seed.

Along with this, researchers are looking at the meal that remains after the extraction process and potential value added uses that may exist. Gibbons notes that aquaculture feed, starter diets for swine or dairy animals, and livestock feed are all possibilities.

Additionally, SDSU ag economists are studying the big picture of oilseed and the impact these crops offer the region – from production potential to marketing opportunities.

The answers provided from this research could fuel a very prosperous future for the region.

A steering committee comprised of academic and scientific leadership from throughout SDSU is providing oversight for the South Dakota Oilseeds Initiative. For more information contact William.Gibbons@sdstate.edu or call (605)688-5499.
The work being done at SDSU by faculty and students in the areas of plant science, horticulture, botany, agronomy, range science and biology has long had a profound impact on agriculture throughout our region. Having modern facilities to accommodate such important work is paramount.

In 2012, work that could have potentially been done at SDSU in these areas would have required nearly 23,000 square feet of greenhouse space. Our current facilities total just over 16,000 square feet of usable greenhouse space. This is a clear illustration of the need. It has become apparent in recent years that the needs of our students, our faculty and the industries impacted by our work will require SDSU to expand its Headhouse and Greenhouse facilities.

Friends of SDSU and plant science enthusiasts are invited to support this important effort for the Headhouse and Greenhouse Facility.

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

Mike Barber
Development Director
SDSU Foundation
1-888-747-7378 (toll-free)
Mike.Barber@sdsufoundation.org

I make no apologies for the fact that I'm a completely biased Jackrabbit fan. When someone asks what college team I follow, I promptly answer: SDSU. Some accept that; others press on with, “Yeah, but what big-time program do you follow?” I am even quicker to respond: “SDSU. I am a Jackrabbit fan. That is my team.”

I know that I’m not alone on that these days. If you haven’t experienced the game-day atmosphere at Coughlin-Alumni Stadium or Frost Arena in awhile, it is time to come home. You will be amazed and proud of what we have become. The Jacks take a back seat to no one anymore. And I mean no one.

Alumni and friends of the College of Agriculture and Biological Sciences need to embrace that same standard set by athletics. When it comes to Ag/Bio faculty, students and staff, we don’t – and never should – feel like we need to take a back seat.

Part of my job is to interact with many of our students. They are driven and talented. They can compete with anyone in the country, without exception. We have some of the leading instructors and researchers in the field of agriculture in the world. Let me repeat that: In the world.

We do have one very clear area where improvement is needed. That is with our facilities. Our fundraising efforts for new facilities for Animal Science and Plant Science are not a want; they are an absolute need. If we are to continue the great work that takes place in Ag/Bio, we must move these projects forward. And we need your help to do it.

We don’t have tailgating or thousands of screaming fans, but I hope we have the same energy and excitement about these opportunities before us.

GO JACKS!
Grassland Plants
JAMES R. JOHNSON & GARY E. LARSON – $17.95
In the grasslands of South Dakota and the northern Great Plains are many hidden treasures. In this guide you will find portrait-quality photos and descriptions of grassland plants and learn of their value to grazing animals and consequently to our nation’s food supply. It is the best field guide to learn the role of plants in food and medicine for American Indians and food and habitat for wildlife.

Plants of the Black Hills and Bear Lodge Mountains
GARY E. LARSON & JAMES R. JOHNSON – $34.95
The book describes some 600 plants of the Black Hills and Bear Lodge Mountains of western South Dakota and neighboring Wyoming. This book is the most colorful and most complete plant guide available.

iGrow Wheat: Best Management Practices for Wheat Production
DAVID E. CLAY, C. GREGG CARLSON, KEVIN DALSTED – $59.95
This newly released manual provides guidance for sustainable production of 100 bushel wheat for South Dakota growers. Topics covered include wheat seed testing, fertilizers and nitrogen management, precision farming tools and more.

Get your copy of these and other great books from SDSU’s College of Agriculture and Biological Sciences at www.igrow.org/store