



### Vermillion Rotary To Hear From Ag Expert

VERMILLION — How are farmers using science and technology to grow healthier food? What's the impact on our food, animal care and the environment?

Those questions will be answered on Tuesday, May 12, during the Vermillion Rotary Club meeting. Stacey Sorlien of the South Dakota Pork Producers Council will address the group at noon at the Neuharth Media Conference Room at the University of South Dakota located at 555N. Dakota St. in Vermillion.

Titled "Farming and Food," the speech by Sorlien will highlight how ongoing advancements in agricultural science are helping farmers raise better food while using fewer natural resources than ever before. "Farmers who raise pigs have been able to make great progress in animal health, food safety and protecting the environment," said Sorlien. "And farmers know they must always keep learning and working to get better at what they do." Farmers now use 41 percent less water and 78 percent less land to raise pigs than they did 50 years ago.

"Modern barns, a focus on nutrition and animal care mean pigs live healthier lives than ever before," said Sorlien. "And, healthy pigs mean healthy food. For example, pork tenderloin today is as lean as a skinless chicken breast and is certified by the American Heart Association as a heart-healthy food. I'd like to thank the Vermillion Rotary Club for giving me an opportunity to share what farmers are doing to make sure safe and healthy food gets to the dinner table today and in the future."

Sorlien says South Dakota pork production contributes \$520 million to the state's economy.

### Check Center Pivots Of Irrigation Rigs

The South Dakota Department of Environment and Natural Resources (DENR) reminds irrigators to check their center pivots to ensure they are operating properly and are adjusted to spray only upon land authorized for irrigation by their water permit.

"It is important that irrigators do everything they can to avoid over spraying onto nearby roads or neighboring properties," said DENR Secretary Steve Pirner. "Irrigation overspray can damage roadways, lead to unsafe driving conditions and impact neighbors."

A water right holder is not allowed to waste water or operate an irrigation system in violation of state water law, which includes spraying water on land not covered by the water permit. Irrigation systems and especially end guns must be consistently checked to make sure it is not applying water to where it is not allowed. Irrigators who fail to prevent overspray can be, subject to fines or required to appear before the Water Management Board for possible suspension of their right to irrigate.

South Dakota has nearly 5,200 active irrigation permits authorizing irrigation of up to 865,000 acres.

### 2015 Nitrate Quick Test Trainings Slated

BROOKINGS — Weather patterns could suggest that this might be a dry year similar to the one we experienced in 2012. With this in mind, Karla Hernandez, SDSU Extension Forages Field Specialist, said cattle producers need to begin thinking about the risk of nitrates in feed supplies and how it will affect their livestock operations.

"It is well known that certain plants are nitrate accumulators and can contain toxic levels of nitrate when consumed by cattle and sheep. One of the results of nitrates is reduction in animal performance, resulting in death of some animals," Hernandez said. "Performing a Nitrate Quick Test will help producers to determine whether they have problems with nitrates and if they are in risk and how further proceed with laboratory analysis if they are needed."

#### QUICK TEST TRAINING

SDSU Extension will be hosting Nitrate Quick Test Recertification and New Certification Trainings in May.

If you were not trained to perform the Nitrate Quick Test in 2014, you will need to attend one of the two-hour New Certification Trainings.

If you were trained in April 2014, you can attend one of the recertification sessions, which is 1 hour in length. Both the New Certification and Recertification will be offered twice to give more people an opportunity to participate.

The trainings will be held May 19 and 22 at eight locations across the state.

On May 19, all one-hour Recertification classes will begin at 1 p.m. (MDT) and 2 p.m. (CDT). On May 22 all one-hour Recertification classes will begin at 8:30 a.m. (MDT) and 9:30 a.m. (CDT).

The 2-hour New Certification classes on May 19 will begin at 2 p.m. (MDT) and 3 p.m. (CDT). The 2-hour New Certification classes on May 22 begin at 9:30 a.m. (MDT) 10:30 a.m. (CDT).

Pre-registration is required by May 13 to ensure each location has adequate supplies. There is a registration fee for New Certification Training. There is also a recertification registration fee that is required on an annual basis. To register call 605-882-5140.

Regional training location include:

- SDSU Extension Mitchell Regional Center, 1800 E. Spruce St., Mitchell, SD 57301; Office: 605-995-7378
- SDSU Extension Sioux Falls Regional Center, 2001 E. Eighth St., Sioux Falls, SD 57103; Office: 605-782-3290

### SDSU Jackrabbit Dairy Camp June 4-6

BROOKINGS — South Dakota State University Jackrabbit Dairy Camp will host a three-day workshop for youth wanting to learn about the dairy industry June 4-6 on the campus of SDSU in Brookings.

The SDSU Dairy Club sponsors this event for youth between the ages 8 to 18 who want to enhance their dairy cattle skills and learn about the dairy industry.

Participants from all states are welcome to attend.

Opportunity campers receive is that of introducing or enhancing skills in dairy judging, showmanship, fitting and industry promotion. There is also a focus on education at dairy camp. Youth learn about a different subject within the dairy production and manufacturing industry.

Not only do the participants work and bond with a provided heifer for three days, they also develop friendships with other campers. These memories and experiences at Jackrabbit Dairy Camp will stick with the participants into their future.

Highlights of the 2015 dairy camp include:

- Dairy Workshops on fitting, showmanship, judging and oral reasons, dairy promotion and dairy products;
- Hands-on fitting demonstration;
- Mock heifer auction;
- Dairy cattle judging contest;
- Fun dairy products demonstrations; and
- Showmanship contest and fitting contest.

After camp, participants will also have the opportunity to attend the second annual Dairy Fest that will be held in Brookings June 5-6. Registration deadline is May 15.

Registration materials can be obtained by going to the Dairy Science website <http://www.sdstate.edu/ds/> or e-mail: [sdsudairyclub@gmail.com](mailto:sdsudairyclub@gmail.com). Camp size is limited, so registrations is on a first come first served basis.

# Scientist: Protect Sandhills From Oil Development

BY RITA BRHEL  
P&D Correspondent

Only 150 years ago, the prairies of Nebraska and South Dakota were a part of a multi-state sea of native grasses laid out below an upside-down bowl of blue sky, with antelope, songbirds, prairie dog colonies and herds of buffalo roaming miles upon miles of the expanse and not a fence in sight.

Today's Great Plains bear little resemblance to that landscape, one that had defined the region for millions of years.

Agriculture and urban development have overcome the symbolic prairie, replacing hills of grass with crop and pastureland, taming the rivers and wetlands and breaking up the remaining ecosystems with roads, fences and other features of human civilization.

"Land use is changing in the Great Plains," said Dirac Twidwell, rangeland ecologist with the University of Nebraska in Lincoln. "There is considerable momentum for further conversion of our nation's rangelands to support energy demand."

It's all well and good for mankind, but he suggests better balance in further development of the remaining areas of nearly untouched prairies.

Specifically, he looked at regions of the Great Plains that have undergone hydraulic fracturing for oil production and found that these types of operations have contributed to significant loss of vegetation across broad swaths of land. The region studied stretched from the southern coast of Texas to northern Alberta, Canada.

"Whether we are talking about advances in oil and gas development, wind or biofuels, we should be aware of our growing energy footprint and how it might influence some of our last remaining iconic rangeland ecosystems, like the Nebraska Sandhills," Twidwell said.

While development did not seem adverse when examined locally, he and others on the research team led by the



Twidwell

University of Montana found that ecosystem degradation was evident when viewed from a large scale via high-resolution satellite measurements of vegetation growth.

The study found that, on average, from 200 to 2012, oil and gas development removed an area of vegetation equivalent to more than half of the annual grazing available on U.S. public lands. Vegetation removed from croplands during this development equaled 120 million bushels of wheat, or 13 percent of all U.S. wheat exports in 2013.

In addition, the team found that half

of drilled wells for oil and gas development are in extreme or high-water stress regions. Hydraulic fracturing consumes an incredible amount of water — up to 13 million gallons of water per well — and leaves a wastewater that can be unsafe for human, livestock and wildlife use. As a result, these wells increase competition for water from all sides: agriculture, wildlife including aquatic ecosystems and municipalities.

"This research adds to increasing calls for a better understanding and awareness of the potential trade-offs of regional-scale energy growth to other needs in a global society, like environmental and food security," Twidwell said.

The study was published in the April edition of the journal *Science*.

# Working Calves In The Spring Leads To An Easier Summer

BY JAKE GEIS, DVM  
Tyndall

Spring is a busy time of year. Crops are being planted or sprayed, the kids' baseball and softball games are going on and the cows need to be turned out to grass. In the midst of all this hullabaloo, it is easy to dismiss working calves in spring as something we're too busy to do. However, spring calf work will save time during the spring and summer by reducing disease issues, as well as increase your return on your cattle investment.

The most common time waster with calves during the spring and summer is treating pinkeye. Pinkeye is an incredibly frustrating disease that not only can result in the loss of an eye, but a potential price dock at sale time. In addition, data released by Montana State Extension showed that calves affected by pinkeye weight on average 19.6 pounds less at weaning than unaffected calves. Although pinkeye prevention is not 100%, taking the time to apply fly tags and vaccinate calves for pinkeye in the spring can go a long ways towards decreasing its prevalence. The less calves you have to round up in the pasture to treat for pinkeye, the more time you have to get the beans sprayed or go fishing with the kids.

Although it occurs with less frequency than pinkeye, Blackleg is a disease with consequences that can be devastating. Blackleg is typically a disease of weaned calves; however, outbreaks can occur in pre-weaned calves as well. The disease causes a high fever, muscle swelling and gas production in the muscles. An infected animal dies within 12 to 48 hours. When blackleg strikes, it usually affects several calves at one



Jake GEIS

time, causing a train wreck that requires immediate medical care by vaccinating and/or treating the entire herd. The good news is the vaccine is inexpensive and highly effective, making it a critical component of a spring herd health program.

A less catastrophic, but prevalent disease affecting pre-weaned calves is pneumonia. Calfhood pneumonia is often underreported in beef herds. Often a producer will have a calf go missing and when it is found dead later it is chalked up to "bad luck." Although a black cat may have crossed your calf's path, there is a better chance the mortality was due to pneumonia. According to a 2007 study conducted by the USDA's National Animal Health Monitoring System, the leading cause of death in pre-weaned calves older than three weeks is calfhood pneumonia, accounting for almost one-third of calf deaths.

Calfhood pneumonia is something to be vaccinated against based upon your herd's risk level. Comingled cow herds should always have the calves vaccinated, so if you buy cows to put into your herd, vaccinate the calves in the spring. Also, cattle that do not get checked on a daily basis should also be vaccinated, since pneumonia can progress too quickly in a young calf to treat if caught a day late. If neither of these situations apply to your cow herd, it might not be necessary; however, consult your veterinarian before removing it from

your program.

Along with disease prevention, other practices can be carried out in the spring to increase time efficiency. When we think of how busy the spring is, we know it pales in comparison to the more hectic fall. Castrating calves in the spring is a great tactic to alleviate the fall workload. Spring castration is easier on both the calf and the person castrating. When done concurrently with giving an implant, the steers will be just as big as they would be if left as bulls until the fall. Since spring castrated calves recover much faster from weaning than calves castrated at weaning, you will have more pounds of calf at sale time.

Early castration isn't the only way to add pounds; using a deworming product will increase your calves' weaning weights. Spring born calves eat some grass through the summer in addition to mother's milk, making them susceptible to parasite infestation. Using a deworming product that has residual lowers this parasite burden through the summer, allowing more of the feed a calf consumes to be transferred into pounds instead of worm food.

Taking one day out of the already full spring schedule may seem pointless at first. However, ignoring spring calf work is a lot like ignoring your wife's plans for Memorial Day weekend — do so at your own peril. Spring calf work lowers your disease risk as well as provides an opportunity to add more pounds when you sell in the fall, making it an important addition to your spring calendar.

Jake Geis, DVM, works out of the Tyndall Veterinary Clinic.

# Farmers Union District I & II Camp Dates Set

VIBORG — All youth ages 6-13 are invited to attend South Dakota Farmers Union's District I & II Summer Camp scheduled for May 27-29 at the Swan Lake Christian Camp, 45474 288th St., Viborg.

Farmers Union Districts I & II include Bon Homme, Charles Mix, Clay, Douglas, Hutchinson, Lincoln, Turner, Union, Yankton, Aurora, Brule, Buffalo, Davison, Hanson, Jerauld, Lake, McCook, Miner, Minnehaha, Moody and Sanborn counties.

This year's camp celebrates South Dakota Farmers Union's centennial with the theme, "Growing Stronger with Cooperation, Celebrating 100 Years." Youth attending camp will have the opportunity to participate in

interactive games and activities that teach them about the benefits of cooperative business, agriculture and working together.

"Young people who attend this year's District I & II camp will come away with a better understanding of the role cooperatives play in our state," said Pat Carsrud, District II Education Director. "Youth will celebrate diversity found within our state's agriculture industry and how they can become involved."

The three-day camp is filled with interactive games, singing, crafts, canoeing, low ropes, archery, camp fires and many other camp traditions.

In celebration of Farmers Union's centennial, activities are also developed to teach

each camper about the impact agriculture has on their daily lives. Through hands-on crafts and interactive games, youth will learn about how cooperatives work and develop team work and leadership skills. Each child will also receive a free T-shirt courtesy of Farmers Union Insurance Agency.

"This camp is designed for fun, learning and to give campers the opportunity to make lifelong friends," said Bonnie Geyer, South Dakota Farmers Union State Education Director. "Camp is a safe place to learn, laugh and grow their personalities." Bus transportation will be provided to camp only and filled on a first-come, first serve basis. Transportation home will not be provided.

Send registration and medical release form to Pat Carsrud, 40062 231st St., Woonsocket, SD 57385 by May 15. Parents and members are invited to a supper and program at 6:30 p.m. Friday, May 29. Pre-registration is required. Camp opening will be noon on May 27 and close following supper/program on May 29.

Registration forms can be found online at [www.sdfu.org](http://www.sdfu.org). You can also pick them up at your local Farmers Union Insurance Agency office or your local cooperative.

For more information, contact: Denise Mushiz, District I Education Director at 605-680-5192 or Pat Carsrud at 605-796-4548.