



# Grassroots

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## Getting More Out of Your Land by Larry Wagner

I grew up on a farm/ranch 20 miles southeast of Chamberlain, SD. My dad farmed until the late 1950s when he switched over to a cattle operation. Corn rootworm had devastated our crops and my dad refused to use insecticides on our land.

I've always been interested in grass management. The Bootstraps group of Brule, Buffalo, and Lyman Counties have been instrumental in helping me develop my knowledge of grass management. In the late 1980s, Dave Steffen (former NRCS District Conservationist) and Dwayne Breyer (Truax Company) conducted rangeland inventories for all Bootstrap participants. I learned a great deal from their assessment and expertise. In 1992, I received one of the first Great Plains contracts from the Soil Conservation Service, which was a precursor to today's EQIP contracts offered by NRCS. This 20 year contract helped cost share cross fences and provided funding to convert cool-season tame grass pasture into warm-season native pasture. Over the years I have accumulated knowledge from ranch tours, workshops, and by reading about grazing management in the Stockman Grass Farmer. I was especially excited to hear producers tell their stories of how they were able to increase their carrying capacity through rotational grazing.

My wife, Dr. Julie Williams (married 28 years) and I are trying to extend our grazing resources and use less fossil fuel to be more profitable. Swath grazing has worked well for us (see photo). We get high utilization, spend less tractor time, and use less fertilizers than traditional haying and feeding. We have been able to increase our cow numbers and our profitability.

I joined the Board of Directors in 2001 because I liked what the Coalition was doing and wanted to help them build their outreach program. Today, people see the Coalition as a very credible organization. Membership is an important way for people to find out about outreach activities such as the grazing school, ranch tours, and holistic resource management workshops. I always learn something new at these events, either from the speakers or when interacting with others.



Dr. Julie Williams and Larry Wagner practice swath grazing in the winter on their ranch near Chamberlain, SD.

## Bird Tour and Rangeland/Soils Days Recap by Judge Jessop and Sandy Smart



A young person holding a banded chipping sparrow (Photo by A. Smart)

The 8th Annual Birds At Home on the Range Tour was held on June 13-14 at Gary & Amy Cammack's ranch near Union Center. Approximately 45 people attended the event. Rain on Friday evening prevented any birding that evening. On Saturday, a light drizzle was falling while we did the nest dragging, bird banding, and plant identification activities. The rain stopped, the sun came out and the wind subsided for over an hour so we could go birding. A highlight of the tour was seeing a golden eagle nest and chick. Then the rain started again while we finished presentations at the ranch headquarters. The Belle Fourche River Watershed Partnership demonstrated the Rainfall Simulator. We also had the American Bird Conservatory's Curlew specialist speak to us about a curlew project in the area available to private grassland managers. Gary Cammack gave a history of the Cammack Ranch and the Cammack Ranch Supply store. He also relayed to the group his management strategies including what they did in the drought of 2012 and the Atlas Blizzard during October 2013. As always the food and fellowship were great and the hosts were most gracious.

The 31st Annual Rangeland Days and 10th Annual Soil Days were held on June 24-25 in Chamberlain. Ninety five participants registered for Rangeland Days and seven for Soils Days. Students from ages 8 to 18 participated in Plant ID, soil judging, range judging, poster presentation, and oral presentation competitions. This year's event was held on Doug Feltman's ranch on the eastern shore of the Missouri River just south of Chamberlain.



Lealand Schoon and Tate Lantz from NRCS assisting the New Rangers. (Photo by A. Smart)

The weather was gorgeous, the views were spectacular, and the food was great (including SDSU ice cream). New Rangers (ages 8-10; pictured left) learned about plants and received a plant press to make a plant collection 4-H project. Many NRCS, conservation district, SDSU Extension personnel, and individual producers came out to lend a hand. Tina DeHaai and her crew did a wonderful job hosting.

## Stomping Out Foot Rot by Garnet Perman

Treating hoof or foot rot is time consuming and expensive and always seems to strike during the busiest time of year. A number of different options can help manage the problem.

SDSU veterinarian Russ Daly isn't aware of any extensive studies concerning the effect of intensive grazing on the incidence of hoof rot. "Rotational/mob grazing may lessen the incidence of foot rot to the extent that it prevents the formation of wet, muddy areas. This is the main risk factor for foot rot. If grazing is managed such that there are fewer mud holes for animals to access and spend time in, then it could possibly reduce the incidence of foot rot," he said.

Several producers were willing to share their experience in dealing with hoof rot. Mike McKernan, Twin Brooks, raises predominately Angus based commercial crossbreds. His pastures are centered two miles east of Summit. Hoof rot was always an issue in his herd. Ten years ago he switched to a mineral with CTC (chlorotetracycline) purchased from his local feed store. That helped reduce the incidence of both hoof rot and pink eye, but he was still treating animals more than he wanted to. He had been rotating pastures for a number of years. Two years ago McKernan switched to a more frequent rotation, moving his herd every 5-10 days depending on the size of the paddock. He also fenced out his dugouts and made fresh water available. The double move didn't eradicate the problem completely, but no animal has had a case of foot rot he considered severe enough to treat since then.

Jim Kopriva, Raymond, runs yearlings in a pasture with a history of hoof rot. Dealing with it was pesky and persistent. They decided to start vaccinating their yearlings, which he thinks is the biggest factor in getting the problem under control. Adding CTC to the mineral helped some more. Moving to fresh grass every two weeks helps. Dugouts are used early in the season only. Fifteen years later, their cattle have all been through the vaccine program and the Koprivas treat only two or three cases of hoof rot per summer. He noted that the vaccine is labeled for liver abscesses, not foot rot but does the job. Bulls are vaccinated and given a booster prior to sale. A dart gun delivers antibiotic to the animals that show symptoms. "When you figure the time invested to treat, that vaccine looks pretty reasonable," said Kopriva.

Luke Perman treated a number of foot rot cases several years ago. Tweaking the mineral program made a difference that year. Case Blom, the nutritionist the Permans work with, looks at calcium, copper, zinc and iodine as well as potassium. Most grasses are high in potassium. Blom has seen positive results in pasture settings by putting out sodium bicarbonate to balance the potassium in the grass. The Permans implemented that this year, but it was too early to evaluate at press time. Blom recommends keeping the bicarbonate, mineral and salt all separate. "Then they can get as much as they want." He also recommends not saving replacements from anything that has health issues.

In conclusion, there is no magic bullet to eradicate foot rot. Herd health practices, grazing management, limiting access to muddy areas, nutrition and even genetics all play a role in dealing with the problem.

*Garnet Perman is a freelance writer and ranches with her husband, Lyle, near Lowry, SD*



Rotational grazing using polywire to limit cattle access to wet areas. (Photo by A. Smart)

## The Green Side Up: Sustainability ... What Might it Mean?

by Pete Bauman

Sustainability. It's a very popular word, but what does it really mean? Technically, Webster defines sustainability as... harvesting or using a resource so that the resource is not depleted or permanently damaged or relating to a lifestyle involving the use of sustainable methods. Not bad. In practice the word sustainability means something different to everyone. Sustainability not only implies good intent but also an understanding of actions, impacts, and improvements. To some it means they have a constant supply of product. To others, it means they've achieved a desired state of success in production methods. Still to others, sustainability isn't enough. They want to expand, improve, and increase profitability in dollars, time management, natural resources, and family life.

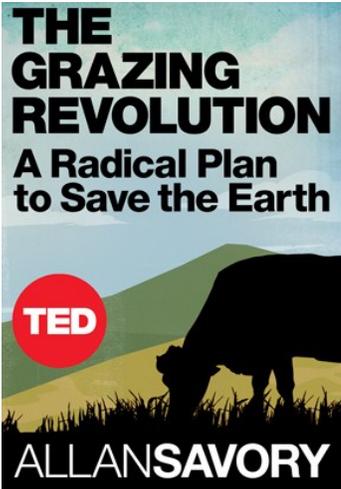
Earlier this month the World Wildlife Fund in partnership with the South Dakota Grassland Coalition hosted a workshop on sustainable beef. *Partnership*...it's a critical component of sustainability in my opinion. For two and a half days we were privileged to hear from partners representing beef producers, conservation organizations, government agencies, educators, and national-level beef processors and retailers on what sustainability means in relation to South Dakota's livestock and grassland industry. As members, you were represented well by your SDGC board of directors as they steered this conversation to what sustainability means for South Dakota's grassland and livestock producers. You should be proud of the leadership this group of individuals displays on a daily basis for our grassland resources.

Few of the roughly 50 attendees felt that they had a good definition for sustainability, but most agreed on what sustainability was *not*. A good start for certain. What came out of this meeting was an acknowledgment by all that significant challenges do exist, even in these relatively good times of profitable beef. The corporate partners had no desire to define what sustainability might mean for *our* back yard. Rather, they preferred that South Dakotans define what sustainability means for South Dakota. Another very good start indeed.

As a general consensus, sustainability for South Dakota's livestock industry is directly dependent on if, how, and when we are able to ensure the future of our native and non-native grasslands through ethical use, protection from conversion, and grassland expansion. Diving deeper, sustainability in South Dakota will hinge on the principals of soil conservation, minimizing erosion, and ensuring water quality.

Sustainability Continued on Page 6

# SDSU and SDGC to Host Allan Savory by Sandy Smart



Allan Savory giving a TED (Technology, Entertainment, Design) talk February 2013.

On Thursday, September 11th, Allan Savory will participate in a ranch tour hosted by Rick Smith near Hayti, SD. The tour is scheduled from 9:00 am to 3:00 pm. Lunch will be included. The cost is \$25 for SDGC members and \$50 for non-members.

Look for brochures to come out later in August that will have more details regarding the itinerary, directions to the seminar and ranch tour, and hotel accommodations.

Please pre-register by September 5 so we can get an accurate head count for the noon meal. To register please contact Sandy Smart (alexander.smart@sdsu.edu or call 605-688-4017). Make checks payable to "SDGC" and mail them to Sandy Smart, South Dakota State University, Department of Natural Resource Management, Box 2170, Brookings, SD 57007.

***Don't miss this opportunity to learn from Allan Savory who has spent a lifetime trying to understand the process of reversing land degradation in countries all over the world.***

Well known author and speaker of holistic resource management and president and founder of the Savory Institute, Allan Savory, will be in Brookings, SD on September 10-11. SDSU and SDGC are teaming up to bring this "once in a life time" event to South Dakota.

Allan Savory will guest lecture in several college courses in Animal Science, Natural Resource Management, Range Science, and Wildlife during the day on Wednesday September 10th. The day will be capped off with a seminar similar to his well known TED talk which will be free to all university students and a small charge to the general public at 7:00 pm in the Performing Arts Center.



Allan Savory speaking to ranch tour participants in northeastern Nebraska in 2002 (Photo by A. Smart)

## Sustainability continued by Pete Bauman



Cattle enjoying fresh grass at the Guptill Ranch near Quinn, SD (Photo by P. Bauman)

We visited the Guptill's Ranch near Quinn and the Jones' ranch near Midland. Both operations put a premium on grasslands and animal care and well-being, even though they utilized different methods in achieving their goals. The Guptill's and Jones' consistent views on the sustainability of soils, grass, animal health and family values easily outshined differences in tools or application methods, suggesting strongly that what sustainability is has much more to do with the principals of a good land ethic than it does with ear tags, branding techniques, vaccinations, or fly control. None of it matters without grass under foot!! The underlying tone is that South Dakota's success is dependent on our ability to increase the value of our grasslands through development of the correct suite of circumstances that will eliminate conversion of our existing native grasslands and margin-

al lands to uses that are incompatible with the long-term sustainability of our landscapes. We can be grassland leaders and grassland champions and set our own course in South Dakota if we embrace this challenge with *'a unified voice for managing South Dakota's grass resource'*. It's our motto, let's use it!!!

*Pete Bauman is an Extension Range Field Specialist in Watertown, SD*



## Summer Blog: Thoughts about Grasslands by Sandy Smart

On July 7th, I was browsing my USA Today App and read a column entitled "Meat-Eaters: Twice as Bad for the Planet as Vegetarians" by Tyler Wells Lynch. The gist of the article was that the "calculated" carbon foot print for people who consume meat was twice as large as vegetarians. I felt a little perturbed about this and it made me think that we could say some mean things about vegetarians or people that consume organic grains. The logic could follow something like this: grain farming without using herbicides requires tillage, and tillage causes erosion, and erosion pollutes rivers, and eventually the Gulf of Mexico. Thus if you are a vegetarian or a consumer of organic grains than you cause "twice as much erosion and pollute the world's oceans". Of course this is nonsense. One thing that people forget is that humans can't eat grass. We need ruminant animals to do the conversion for us. I like to think of myself as a second degree vegetarian: cows eat grass and I eat the cows. The author of the article points out that a lot of the meat we eat comes from animals that consume grain. Monogastrics like pigs and poultry can't digest cellulose and hemicellulose found in grasses and therefore need grains, made up of starches, for their main energy source.

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# Summer Blog Continued by Sandy Smart

In an ideal world, all ruminants would only consume grasses and no grains and the benefit from these animals would be something that could not be replaced by monogastrics. The author also points out that ruminants produce methane by the fermentation process and this greenhouse gas is worse than CO<sub>2</sub>. I've heard this argument before and what seems to never occur to anyone is that the number of ruminant animals worldwide has probably not increased. We've replaced bison with cattle and probably small wild ruminants in other countries with sheep and goats. It would be interesting for someone to do some research on this point.

As a member of the SDGC, I often think of the many benefits grasslands provide, especially in light of high grassland conversion going on around us in the northern Great Plains. I am on the 5th year of conducting a mob grazing study at the SDSU research station near Volga, SD. Moving cattle 2-3 times per day allows you to observe many aspects of pasture ecology. The other day, the pasture was filled with spider webs that the morning dew caught my eye. Insects are important for pollination, nutrient cycling, and food for other animals. I have been seeing a lot of dung beetle activity which is good news.



Spider web with morning dew and dung beetle holes on a cow patty from mob grazing paddock at Volga, SD (Photo by A. Smart)



The SDSU Volga research station is under a grassland easement setup through the USFWS. This land has several small ponds, dugouts, and numerous wetlands. It is perfect for grazing livestock and very compatible for grassland birds and migrating waterfowl. In one of the pastures that gets mob grazed, I flushed a duck that was nesting. I was worried that the cattle, under a 200,000 lb/acre stocking density might step on the nest and break the eggs. Fortunately, this did not happen. The cattle grazed all around the nest and it was not disturbed (see photo on the right). Later, I went back to see the nest and found that all of the eggs had hatched and the mom must have lead her ducklings to a nearby pond. One could have made the argument that mob grazing would have made it easier for predators to spot the nest, but with it being so late in the season the eggs hatched before that could have happened. Also, as you can see in the photo the grass was not consumed or pounded to the ground like a putting green. So in summary, eat meat and be proud of the products that come from America's grasslands. Be good stewards of the land and it will take care of you.



Duck nest found in mob grazing pasture at Volga, SD. Notice the grass around the nest was grazed and the grass near the nest was left standing. (Photo by A. Smart)



Sandy Smart  
 Box 2170, ASC 219, SDSU  
 Brookings, SD 57007

## Calendar of Events

Event	Date	Location	Contact Person	Phone
Allan Savory - SDSU Talk	Sep 10	Brookings	Sandy Smart	605-688-4017
Allan Savory - Ranch Tour	Sep 11	Hayti	Sandy Smart	605-688-4017
SD Grazing School	Sep 15-19	Chamberlain	Judge Jessop	605-280-0127
SD SRM Annual Meeting	Oct 8-9	Ft. Pierre	Tate Lantz	605-343-1643 x133
Winter Road Show featuring Gabe Brown	Dec 10 Dec 11	Mission Yankton	Judge Jessop Judge Jessop	605-280-0127 605-280-0127
SDGC Annual Meeting and Gabe Brown	Dec 12	Chamberlain	Judge Jessop	605-280-0127

Please remit any comments, suggestions, or topics deemed necessary for further review to: Sandy Smart, SDSU Box 2170, Brookings, SD 57007, alexander.smart@sdsu.edu, (605) 688-4017