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Range 101: Holistic Goal by Sandy Smart

As we start the spring semester at SDSU and a new year, I thought it appropriate to write about goal planning. Each year, I start my Ranch Management Planning course by reviewing the holistic goal concept developed by Allan Savory in his book “Holistic Management: A New Framework for Decision Making”. Spending time thinking about the “whole” is very important to orient oneself and a ranching operation to the things that influence every decision that needs to be made. Understanding that you don’t operate a ranch in a vacuum is important in developing a holistic goal. We first define the “whole” into three major categories: decision makers, resource base, and money. The categories are smaller wholes in themselves overlapping and connecting everything together. The decision makers are people that have influence on the day-to-day operations of the ranch or have a vested financial interest in the operation. These people create the holistic goal. It is a good idea to involve hired labor in forming of the holistic goal because they have special insight since they conduct routine tasks on the ranch. Creativity often comes from the ones doing the work as noted by Jim Collins in his book “Good to Great”. Also, you want people to be “on-board” when you implement necessary changes to the operation. The resource base is the physical things we normally think about on a ranch such as land, livestock, and equipment. However, you should expand this to include people as well. Extension agents, bankers, veterinarians, government agency people, etc. can be an excellent resource of knowledge to help you be successful. Finally, there is money. We need money to reinvest in the business and support our lifestyle. The important thing to remember is the source of money and the time value it has. It can work either for you or against you. You just need to use it wisely.

After defining the whole, you can form the holistic goal. Savory describes three areas of the holistic goal: quality of life, forms of production, and future resource base. The quality of life can be described by value statements about family, work, free time, spiritual, physical, and emotional well being. Forms of production are statements about how to take the resource base and convert it to money to support your quality of life. For example, most farms and ranches support wildlife and could generate income through hunting or agritourism in addition to growing crops and livestock. Think outside the box for ways to convert the sun’s energy into cash. Last is the future resource base. You should think of statements that value the succession of your family business to the next generation, the environmental land ethic, and the importance it has in your community.

The holistic goal acts like a filter to help you make decisions and point you in the right direction. It grounds you and helps you avoid impulsiveness and miss steps you might regret. It also is not carved in stone. It should be a living document, reviewed and revised regularly. This time of year is perfect to review, revise, and use your holistic goal.

The Grazing School Follow-Up Program by Dan Rasmussen



Dan Rasmussen, former Grassland Coalition board member, is now serving as a Grazing Land Educator /Consultant for SDGC (Photo by D. Rasmussen).

The year was 1991. The air was cool for July as I stood on top of a tall butte with my father and Dwayne Breyer. The three of us were looking out onto the ranch that I ran with my father. The pastureland was brown from hot summer winds and sparse rain. For the last two years I had been a part of a new extension program called Bootstraps to assist people like me improve ranch management. Dwayne, a range consultant with Bootstraps, pointed out the large green patches scattered throughout the winter pastures visible on the plain below.

"If I were you fellas," he said, "I'd be rotating a large herd of yearlings through these pastures about now". He pointed out the green patches that were warm season grasses; mostly big bluestem and sideoats gramma. Dwayne said the yearlings will seek out those "ice cream" grasses and leave the western wheatgrass alone. That's a good thing for us since western wheatgrass is a great grass for winter grazing. He said that

cows will have to be pretty hungry before they eat big bluestem or little bluestem in the winter when it is dormant. Not that they won't, but you can get a lot better use of those grasses by grazing in the summer with a fast rotation.

I was in the first Bootstraps class starting in 1990. Dwayne was a hired range consultant doing the Bootstraps follow-up resource inventory. Dwayne stood between my father, Skee, and me on the butte that July day when he recommended implementing a rotational grazing plan on the ranch. There was a long silence after he had made his pitch. Finally, Skee spoke, "Won't those yearlings hurt our winter pasture? I am afraid they will eat out the good stuff and our winter grass won't last."

I looked at both of them and said, "lets try it."

Dwayne, sensing my enthusiasm and Skee's reluctance, adeptly shifted into his "be careful" lecture, "I'd suggest you start slow with a small herd", Dwayne began, "get your feet wet for a couple of years and see how it goes. The worst thing you could do is jump in too fast and have a wreck. That might sour you from making some real progress."

That first summer we rotated fifty yearlings through six winter pastures. Two years later we were moving 250 yearling steers every two to three weeks through 800 acre pastures. This rotation took us into August when we normally sold the yearlings. We were able to keep the yearling open heifers all summer instead of selling them in the spring.

After the first year of rotating cattle, my father was a huge fan of the practice. He would drive around the ranch evaluating utilization of warm season grasses and coaching me on how long to leave the yearlings in each pasture.

Grazing School Follow-Up continued by Dan Rasmussen

Standing on Cedar Butte that day in July of 1991, Dwayne made his second pitch, explaining how season-long grazing was depleting our plant diversity.

“Your plant diversity may be the most important thing you have on this ranch.” Dwayne said, “Where you summer-long graze, the warm season grasses and forbs are disappearing. If you can manage to get these pairs rotated even a couple of times during the summer it would make a tremendous difference in your pastures.”

It took a number of years for Dwayne’s wise words to be fully appreciated by my father and I. But, joined a few years later by brother-in-law Blake, we planned, sometimes failed, and re-planned grazing strategies. In drought years the yearlings were sold in May. Steadily the pastures improved. As a result, plant diversity is, as Dwayne predicted, the most important natural resource we have on our ranch today.

Dan was a board member of the South Dakota Grassland Coalition for 18 years and is currently Chair of the Grazing School Committee, Grazing School Follow Up Committee and the Educator/Consultant on the Coalition’s Collaborative Conservation Grant.

Recent graduates of the South Dakota Grazing School are eligible for a Bootstraps style range consultant visit. The range consultant may spend several days on the graduates ranch helping implement grazing practices. The cost is \$150. The remaining consultant fees are paid by grants from NRCS, SDSU Extension, and other generous donors.

If you are interested in participating in the Grazing School Follow-Up program, contact Dan at: dan.rasmussen@sdconservation.com.

If you would like to attend a grazing school, contact Judge Jessop at: judge.jessop@sdconservation.net.

Holistic Management Road Show by Judge Jessop and Sandy Smart

The speakers for our Winter Road Show were Roland Kroos and Patrick Toomey of Crossroads Ranch Consulting, Bozeman, MT. Roland Kroos has been helping farmers and ranchers implement holistic management practices for over 40 years. After working with Allan Savory at Holistic Management International, Roland ventured out on his own and created Crossroads Ranch Consulting focusing on the northern Plains. Patrick Toomey is a holistic management consultant with Crossroads Ranch Consulting. After working as a reclamation specialist on the oil and gas fields, Patrick began working with the InterTribal Buffalo Council. Through various networks, Patrick discovered Crossroads and began working with Roland in July 2018. Locations and attendance were: Watertown-34, Eurkea-44, Chamberlain-52, Buffalo-40, and Custer-30; totaling 200 people.

Linda Gilbert, SDGC board member from Buffalo, SD said “the workshop was really well received in Buffalo”. She appreciated that the Coalition planned a workshop in her area of the state. “People were intrigued by the philosophies shared by Roland and Patrick. Topics that had the greatest interest were fencing, water developments, and grazing rotations. Economic perspectives presented by the workshop consultants, similar to how Dave Pratt presents in his Ranching for Profit School, also were well received by the ranchers” said Linda Gilbert. She also mentioned “Kroos and Toomey were quite impressed by the types of questions from the ranchers, especially at the Buffalo workshop”.

New SDGC Communications Specialist by Cody Littau



Cody Littau, SDGC Communications Specialist. (Photo by C. Littau).

The South Dakota Grassland Coalition is pleased to welcome Cody Littau as the Communications Specialist.

Littau joins the SDGC with a background in research, communications management for small businesses, and agriculture. She is passionate about preserving ranching for future generations. "I believe that the work the South Dakota Grassland Coalition does is key to sustaining operations for future generations," said Littau. "The Coalition's approach to conservation and management can help us increase profitability, be more relevant in today's markets, and pass on knowledge and healthy grasslands to the next generation."

Littau headquarters out of the Kennebec, SD USDA Service Center and can be reached at (336) 269-8195 or cody.littau@sdconservation.net.

The Coalition is excited to use Littau's marketing and education expertise to reach a wider audience. This position is the result of a three year partnership between Natural Resources Conservation Service and the Coalition. "We are pleased to partner with the South Dakota Grassland Coalition to increase education and awareness of holistic grassland management through this three year position. We are looking forward to making a difference through this local, grassroots connection for the betterment of South Dakota's grasslands," writes Jeff Zimprich, State Conservationist, USDA NRCS, Huron.

The South Dakota Grassland Coalition is committed to promoting good stewardship of grasslands through sustainable and profitable management. They seek to educate and mentor grass-based livestock producers, and farmers interested in integrating livestock into their operations to be more profitable by improving the ecological health of their grasslands.

Grass-Cast: a New Grassland Productivity Forecast Tool for Drought Planning by Sandy Smart

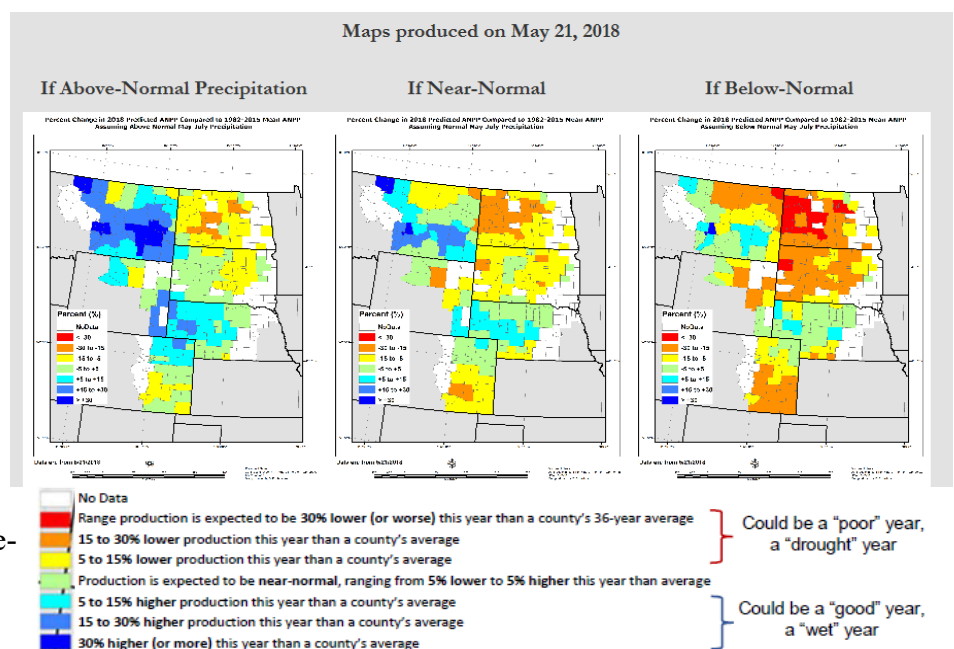
Drought is a relatively common occurrence in the Northern Great Plains. A hundred year climate data set from the SDSU Cottonwood Range and Livestock Field Station shows spring droughts occur once out of every five years. Spring droughts are particularly troublesome because most of our forage production comes from cool-season grasses. Summer droughts have less impact on pasture production but can result in lower crop yields. Droughts can cause significant financial and environmental hardships for unprepared ranchers. Having a drought plan is critical to reduce buying and selling in highly volatile markets, reduce over-grazing rangeland resources, and speed up rangeland recovery.

Grass-Cast Continued by Sandy Smart

Every good drought plan has key trigger dates that incorporates 1) past, current, and forecasted climatological information; 2) livestock and feed market information, 3) rangeland vegetation monitoring; and 4) a suite of management actions to bring balance between livestock demands and forage supply. The hardest part about “pulling the trigger” in the drought plan is having confidence in making the right decision. No one has a crystal ball to look into the future to have 100 percent certainty, however past experience and a build-up of scientific information and recent technological advancements can provide us with the necessary tools to make good drought management decisions.

One of those technological advancements is the new grassland productivity forecast tool called “Grass-Cast” (available online at <http://grasscast.agsci.colostate.edu/>). This collaborative effort by USDA Agricultural Research Service, Colorado State University, National Drought Mitigation Center, University of Arizona, and the USDA Northern Plains Climate Hub provides forage productivity maps at the county level for the Northern Great Plains. The maps are updated every two weeks and makes seasonal estimates compared to a 34-year average. In South Dakota, April through June rainfall is critical to producing forage on range and pasture. Since most ranchers turn out livestock on pasture in early to mid-May, having a reasonable estimate of grass production by then would be extremely helpful. By July 1st, most of the annual forage production has occurred; so waiting for rain won’t help much. Thus the best use of Grass-Cast will be in May and June.

Grass-Cast shows three options or “what if” (above-normal, near-normal, and below-normal) precipitation scenarios. The maps produced on May 21, 2018 shown in the figure give equal chances (33%) for each scenario. The red, orange, and yellow colors on the map indicate below-average forage production compared with the county’s average and green, teal, blue, and dark blue colors indicate above average forage production. As interpreted, the colors that indicate below-average forage production dominate two out of the three maps. Only the “above-normal” precipitation map shows adequate forage production for western South Dakota.



A nice feature on the website is the “Maps Archive” tab. Here you can see the previous predictions and compare them to the most current set of maps.

Drought preparedness starts with a plan. Having a reliable estimate of forage production is critical for making decisions. Grass-Cast can be used as one component in your drought plan. Overtime, like anything else, we should see improvements in forecasting. It would be a good idea to make notes of forage production on your own ranch so you have some benchmark to make comparisons. For more information on drought planning visit the National Drought Mitigation Center (<http://drought.unl.edu/>) or contact your local range extension field specialist.

Cows in the Corn by Garnet Perman

Doug Sieck's cows have grazed standing corn for the past four years. Terry Gompert and an Alberta Ag Youtube video introduced him to the idea. Sieck researched the practice prior to implementing it. The usual winter hay ration is 40 pounds of hay per cow per day. Current South Dakota alfalfa prices are approximately \$100/ton, so the daily cost per cow runs \$2.00. Corn is currently about \$3/bushel.

At 56 pounds per bushel, 10 pounds of corn/cow costs about 54 cents. Sieck supplements with alfalfa twice a week, about 15 pounds per cow per feeding or 30 pounds per week. The hay charge is about \$1.50 per week or 21 cents per day. His total feed cost per cow is approximately 75 cents/day.



Strip grazing standing corn in winter near Selby, SD (Photo by D. Sieck).

Sieck combined his field in a checkerboard pattern based on the average yield. Cutting around the edges of the sections to be grazed allow for easier fencing. Sieck is accustomed to moving the herd every day so each section is enough for one day's grazing. For him that calculates out to 1/3-1/2 acre per day. Additional savings are realized by planting left-over seed and not combining the entire corn field. He also didn't use as much fertilizer as usual. The forage corn follows a cover crop. Sieck uses a 1590 drill to plant corn in mid June. "I don't think the stand has to be perfect," he said. He sprays the corn for weed control.

Josh Lefers also grazes standing corn in Douglas County. He also credited Terry Gompert for the idea. He first attempted tried a management plan similar to Sieck's. Last year pairs grazed on the corn with no hay supplements. He estimated 18 pounds per pair per day and moved them every 2-3 days. "They clean up most of the grain the first day and then pick through the stalks," he said. He estimates a feed cost of \$1/pair/day with \$3 corn. "It carries the calves through at a low cost until a better market in March," said Lefers. Calves are weaned shortly after coming off the corn. He appreciates the flexibility the grazing corn option adds to his wintering choices, and the small amount of land needed to feed several cows. Lefers rents the corn based on current prices.

Strong fences are essential. Both Sieck and Lefers use polywire. Sieck's cattle are accustomed to polywire and respect it even though the corn and hay ration may not completely satiate them. He recommends training cattle to whatever type of fence will be used if they are not familiar with it prior to grazing standing corn. He sets up the next day's fence the evening before moving the cattle as insurance against them pushing through into the entire field. Lefers has to run a second wire to keep a strong charge, especially in snow cover and also keeps a second barrier fence. He uses a cordless drill to set posts. Both men recommend starting the cows on corn, 2-3 lbs/head/day for a week or more prior to moving into the standing corn. Sieck offers free choice baking soda as a rumen buffer. A blizzard contingency plan should always be part of a South Dakota winter. Sieck maintains a feed wagon of corn in case he needs to move the herd to shelter. Sieck has had foot problems appear in the cattle, however he believes the savings are worth it. Lefers' hasn't treated any health issues but noted that the cattle may not do well for a week or so when coming off the corn as the rumen converts to digesting hay or grass. Grazing standing corn can be another tool for cattle to weather the winter; especially when hay is expensive or the cornfield has wind or hail damage.

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

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- News from the SD Section of the Society for Range Management

By: Pete Bauman

Last October, with support from the SD Grassland Coalition, we held the annual banquet, elections, and awards ceremony for the SD Section of the Society for Range Management (SRM) in Chamberlain. You may not know who SRM is or what SRM does, so we're taking the opportunity to re-introduce our organization and explain why we are relevant in rangeland science, management, and youth education.

Who is SRM? The Society today is a collection of agency professionals, ranchers, academics, and various land managers interested in advancing the understanding and healthy management of rangelands. Rancher-members are an important voice in the organization, especially in South Dakota.

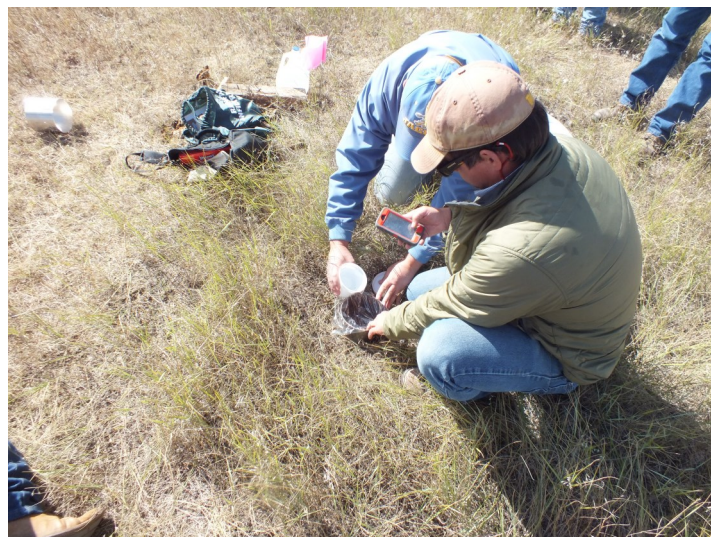
When was SRM formed? Late 1940's.

Why was SRM formed? At the time, there was a strong belief that range science and education needed to be advanced, especially after the Dustbowl era. One of the primary goals was to develop and publish a journal, which became "The Journal of Range Management". Today after 72 years, SRM helps agencies set and maintain professional standards and ethics as well as provides universities with standards for range education degrees and certificates. The Society also hosts an annual international conference focused on range science and education. Issues that SRM has been involved with over the decades includes everything from ranch resources, management policies on public land, livestock production, wildlife habitat, and drought. Youth education has been a staple of the organization since the early 1950s and has included youth essays, plant ID contests, scholarship awards, rangeland judging, and the Youth Range Forum. Here in South Dakota, youth education and recognition of top rangeland managers is our focus.

Who is SRM in South Dakota and what do we do? The South Dakota Section was formed in 1950, shortly after the national organization was established. SD SRM is a non-profit and has a traditional board of elected officers and directors. Today, approximately 70 members keep us active and relevant, working with partners to advance the mission of the Society. We have standing committees dedicated to awards, membership, newsletter, students, producers, research, and youth activities.

What does SRM membership offer to today's SD rancher? Great question. At a recent gathering of SRM leadership, we re-committed the organization to advancing the science of range management, re-engaging the rancher and providing a forum for him/her to share experiences, and continuing to support our youth education agenda. By joining SRM, you will help ensure that we are offering relevant and meaningful information and support to ranchers. In particular, a stronger membership helps ensure that educational programs, including the Range Degree at SDSU, remain available to the next generation of rangeland managers.

To join SRM simply log on to sdrangelands.com and select the membership tab. You will be routed to the national SRM website where you can join or renew your membership



2014 Excellence in Range Management Tour on the Reichert Ranch demonstrating water infiltration (Photo by T. Lantz).

National SRM Conference coming to Minneapolis February 10-14. Visit www.rangelands.org for more info.

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



Sandy Smart
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Calendar of Events

Event	Date	Location	Contact Person	Phone
NRCS State Technical Meeting	Feb 12	Fort Pierre	Kathy Irving	605-352-1205
Mid-Missouri River Prescribed Burn Association Annual Meeting	Feb 27	Bonesteel	Sara Grim	605-654-2288
Ag Day at the Washington Pavilion	March 23	Sioux Falls	Judge Jessop	605-280-0127
Annual Bird Tour	June 7-8	Mitchell	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@sdstate.edu, (605) 688-4017