SOUTH DAKOTA GRASSLAND COALITION

Grassroots

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The Greenside Up: Conversion of Expiring CRP Acres to Pasture

by Pete Bauman

Pete Bauman

As many of you know, I worked for The Nature Conservancy prior to coming over to SDSU. In that role, I worked very hard to champion the protection of South Dakota's grasslands. I specifically recall a conversation I had with Kurt Foreman with the USFWS early in my career. If you don't know Kurt, you should make the effort to get to know him. Few folks have done more in recent years to beat the drum on grassland protection than he. Through Kurt's work with the Partner's for Fish and Wildlife program, millions of dollars have been infused into programs that are aimed at keeping our ranchers and grassland managers on the ground and in productive enterprises.

Anyway, Kurt once told me the fight for grass wasn't so much about management….which is of course important. Rather, the huge battle in front of us was simply keeping the 'green side up'.

That conversation was over 10 years ago. And I hate to say that Kurt was correct. We desperately want improved grassland management in South Dakota. We desperately need improved grassland protection. So, I've adopted 'the green side up' as the title for my article series here, and I hope to bring some perspective to the loss of grasslands we are witnessing and the options we can exercise to save at least some of it.

There are economic and social drivers at play that threaten our grasslands. There is little debate about those two basic points. It is difficult to tolerate the current rate of conversion, but there is little we can do except to try our best to educate. One of the education opportunities we may have in front of us is the chance to reach out to landowners with CRP acres due to expire this coming October.

Although CRP acres are not the most important grasslands in the state for biological diversity or cattle production, they do offer a great value to our wildlife and our soils, and their loss indicates a general decline in the value we place on grasslands. The following information is taken from a recent iGrow article I wrote on this topic. In 2013, roughly 128,000 acres of CRP will expire in SD (22,000 west river, 106,000 east river) (Figure 1). It is projected that at least a portion of these acres will be re-enrolled in the program. On remaining acres, landowners will have to make a decision on retaining the CRP as grass cover or converting the land back to crops.

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The Greenside Up continued

Utilizing expiring CRP for grazing may prove to be a beneficial option for grazing operators, landowners (including absentee landowners), and wildlife if the correct approach and relationships are developed. If livestock producers can connect with CRP owners, conversion of these grasslands to grazing/hay use may be quite feasible depending on CRP landowner interests and values. Without understanding the grazing alternative, CRP landowners may gravitate back to crops simply out of convenience.

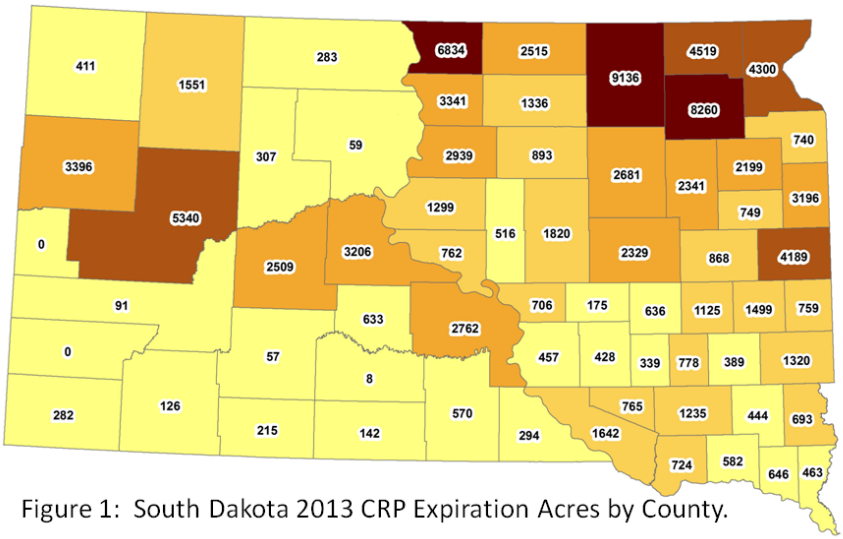

Figure 1: South Dakota 2013 CRP Expiration Acres by County.

Currently, several agencies and organizations are willing to work with landowners to convert expiring CRP acres into haying and grazing management. SDSU Extension, NRCS, and Pheasants Forever all have grassland specialists on hand to assist landowners in the decision making process. The US Fish and Wildlife Service and SD Department of Game, Fish, and Parks offer excellent assistance options through their private lands programs. These programs include assistance and/or cost share for:

fencing materials for rotational grazing (producer covers labor), livestock and water development, wildlife habitat development, operational planning assistance, and seeding enhancements

A key component in developing a grazing plan for expiring CRP is building a relationship with the CRP owner. Some things to consider when approaching an expiring CRP landowner for a grazing option include: 1) Share information. Offer to work with him/her to explore the best alternatives for fence, water, and other needs. 2) Educate. Help the CRP owner understand the importance of keeping the grazing industry strong in South Dakota. 3) Show sincerity. Offer your services and consider providing the labor for any improvement projects. 4) Bring in a third party advisor to help with quality assessment and to ensure balance between the livestock/haying goals and objectives and the CRP owner's goals and objectives. CRP landowners will likely retain wildlife or habitat interests and may want to limit grazing access to some portions of the project area. 5) Rental/purchase rates for grass are on the rise, acknowledge this and offer a fair deal. 6) Consider a long-term lease option that provides for fairness in rental rates, stocking rates, grazing timing, and labor inputs by all parties.

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

SDSU Extension

Bendigo and Cammack Ranches Recognized for Excellence in Range Management

by Garnet Perman

This year's South Dakota Section of the Society for Range Management (SRM) Excellence in Range Management Tours were held at Bendigo Ranch in Ziebach County and Cammack Ranch in Meade County.

Bendigo Ranch is Beau and Susanne Bendigo's work in progress. They took over Beaus' home place from his parents, Larry and Ursula, in 2003. Located along the Cheyenne River near Howes, their cow/calf operation is unusual in that most of the grazing is leased from the Cheyenne Sioux River BIA. Beau and Susanne's first year of management included dealing with substantial drought. While searching for better ways to water his cattle, Beau ended up at his local NRCS office. He found answers to the water dilemma and much more. "I've learned a lot from the crew there at Dupree," he said. More motivation came from reading an article about the grazing practices employed by Slovek Ranch near Philip, SD. Bendigo implemented an EQIP program, divided pastures and moved from season long grazing to a rotational system. Water resources were extended to 12 tire tanks that can be accessed from either side of the fence. Every tank is equipped with mesh "ladders" to give small animals and birds access to water. Calving dates were moved from March 1 to April 1. The cows graze year round supplemented with cake. Bendigo also supplements with some hay prior to calving. The BIA sets the stocking rate for Bendigo's leased land. Their management changes resulted in the stocking rate being raised from 204 to 249 AUMs annually. In addition, the ranch weathered the drought of 2012 with enough water and grass for the entire herd. With moisture still short this growing season, Bendigo plans to forgo putting up his usual 200-300 bales and letting the cattle utilize the hay ground instead. Bendigo finds the Internet to be a great educational resource and makes a point of learning from other people in ranch management and soil conservation. "Continue to ask questions," is his advice for anyone interested in improving their resources.

Cammack Ranch is Gary and Amy Cammack of Union Center. They started ranching with 320 acres. Thirty years later, their cow/calf operation grazes around 400 pairs on 7,000 acres. The ecosystem they work with features sandy soils over shale or hard pan. An emphasis on improving the amount and quality of forage in a sustainable way informs their management decisions. Some improvements they've made over the years include building V shaped windbreaks of scrap metal backed by shelter belts near riparian areas that serve as winter cover for both cattle and wildlife. Over 20,000 trees have been planted. They devised a water jet system to start willow and cottonwood shoots in wetland areas. Five energy efficient watering systems serve the ranch during the winter months. They are in year 3 of the Conservation Stewardship Plan which monitors key grazing areas for utilization. A management plan with supplements is then designed to more efficiently use an entire pasture. Cross fencing, rotational and intensive grazing are key to their plan. One stop on the tour included an 1800 acre tract of land that five years ago was covered with prairie dogs and cactus. They eliminated the rodents and cactus, divided the land into four pastures and implemented a twice over grazing plan. Gary estimated that available forage has increased by 30% since then. In a partnership with US Fish &Wildlife, several waterfowl dams were developed to provide habitat for migratory waterfowl. "There really is a lot of help out there," said Gary, citing the NRCS, FSA and USFWS . Cammack appreciates the design models and expertise they offer as much as he does the funding for various projects.

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

Grassland Birds: At Home on the range at Rosemont Valley

by Silka Kempema

Empidonax flycatcher caught and banded at the bird tour (2013).

Although many of the large tracts of pristine native prairie are gone, grassland bird conservation is not a lost cause and the South Dakota Grassland Coalition wants to let people know. Beginning in 2007, the Coalition spearheaded an annual bird tour held on privately-owned ranches throughout the state. The goal of the tour is to provide information to a diverse public demonstrating the relationship between land stewardship and grassland wildlife, with an emphasis on bird conservation. Management goals on rangelands need to remain economically productive. However, this management also can be done in concert with conservation.

Each year the Coalition works with a different privately-owned ranch to host the tour. Participants learn about wildlife and ranch management and how the two are intertwined. The tours have been hosted on private ranches in Aurora, Beadle, Day, Lawrence, Mellette and Pennington counties. Bill and Connie Smith hosted this year's tour at their Rosemont Valley farm near Montrose, SD. Over sixty people attended this year's tour which was held 14-15 June.

This year's two-day tour began with the history of Rosemont Valley Farm. Rosemont Valley Farm borrowed part of its name from the long-gone Rosemont Hotel in Montrose, SD. The town and the hotel, they say, were named after the many wild roses in the area. Bill and Connie added 'Valley' to their farm's name because much of their land lies in and around the East Vermillion River valley.

Their philosophy, along with their three sons', is to focus on maintaining healthy grasslands for their cow/calf and yearling enterprises, utilizing conservation practices. "Not only are healthy grasslands beneficial to cattle production," says Bill, "but the entire area benefits from the resulting diversity in plant and wildlife. We believe it's our responsibility to take care of the gift we've been given."

In preparation for an early morning of birding, participants navigated a crash course in bird identification. Participants learned that bird shape and size, color pattern and the presence or absence of field marks such as wing bars, eye rings and tail shape along with habitat and behavior are all used in combination to identify a bird to species. Although advanced, identification by song was also discussed, as many grassland birds are heard and not seen. Throughout the course of two days participants saw over 40 bird species representing grassland, woodland, and wetland habitats.

In addition to looking at birds through binoculars, participants saw first-hand how migratory songbirds are banded and why biologists collect this type of information. Participants were able to see birds up-close and the bands that are put on their legs.

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Grassland Birds continued

Invertebrates play a crucial role in the web of life on rangelands for both wildlife and livestock. Presentations were given on the biology of and ecosystem services provided by beetles. If you've ever noticed those little bugs, working diligently to role dung into a ball, you've just been introduced to the world of invertebrates.

Plant specialists were on hand to talk about the dizzying array of plant species found in grasslands, how different grass species respond to grazing differently, and how insects can be used to control exotic, invasive plant species . The health and diversity of grasslands make both ranching and bird watching possible.

Dickcissel. Photo by Alan Smith (2013)

The Coalition bird tour reaches out to approximately 70 new people each year. In 2009, continuing education credit was available to K through 12 educators through Dakota State University. This year four educators visiting the Rosemont Valley Farm will continue the outreach efforts of the bird tour by developing lesson plans designed to teach younger generations about birds and cows. Awareness and knowledge of prairie ecology is the first step needed towards conservation of a declining ecosystem and vanishing way of life.

Silka Kempema is a wildlife biologist for South Dakota Game, Fish and Parks located in Pierre, SD

2013 Grassfed Exchange Conference

The Grassfed Exchange is holding the "Grassfed Rising: Building the Soil-Grass Connection" conference on August 20-23 in Bismarck, ND.

The conference will be held in Bismarck, ND at the Ramkota Inn Best Western Plus hotel. Call (701) 258-7700 for hotel reservations and mention the conference name for special rates.

Day 1 (Tuesday Aug. 20) Pasture Walk Tours (7:30 am-9:30 pm)
Morning tour of Ken Miller Ranch, holistic management, grazing irrigated pastures, native rangeland ecosystem, live grass finished beef display and discussion. Afternoon tour of Gabe Brown Ranch, soil health and why it matters, slake and infiltration demonstrations, biological primers (cover crops), high stock density grazing, view grazing cover crops, discuss fencing, BRIX, dung beetles, networking/presentations and Beginning Farmer Rancher business planning workshop
Day 2 (Wednesday Aug. 21) Conference Day 1 (8:00 am-9:00 pm) Morning—Bill Helming, Dr. Allen Williams, Abe Collins. Afternoon—Doug Peterson, Neil Dennis, Dr. Don Huber. Evening—Banquet and Keynote speaker Dr. Fred Kirschenman
Day 3 (Thursday Aug. 22) Conference Day 2 (8:00 am-5:00 pm) Morning— Dr. Don Huber, Warren King. Afternoon— Discussions with Local Consumer Panel, Buyers Panel, and Bill Helming

To register for the conference www.grassfedexchange.com/conference/ or Josh Dukart at (701) 870-1184.

The Eastern Third: Are you managing your livestock's water?

by Rick Smith

Rick Smith demonstrating above ground pipeline options. Photo by Sandy Smart (2006).

You manage grass, minerals, and livestock, but do you manage your livestock's drinking water? Livestock water dictates how we manage everything else. Single location water sources, water that goes bad, water that is gone, all can make grazing management difficult or near impossible. Livestock trailing long distances to water, use up valuable calories that could be used for production. Water that is contaminated by livestock and then used for drinking: limits intake, harbors diseases and decreases production. Pastures without water have little value to livestock operations-grass or no grass. Pastures with poor water aren't much better.

Water management plans have to be tailored to the individual ranch and resources available. The challenge is how to provide unlimited clean water. Repeated research on yearlings and calves show that .5# daily gain increases can come just from tank supplied clean water versus pond water, that cattle can access. The incentive is there to find solutions.

In the Eastern Third for years we relied on dugouts. Placed in a wetland or draw, they filled either from ground water or runoff or a combination. Put cattle next to them and they became a cesspool. Eventually the side banks are worked down, the depth becomes shallower, the water hotter, and the bacteria sky high. At this point a producer needs to compare his options.

At the top of the list should be trying to get a piped water system installed. Location means everything in developing a water source. Evaluate the closest electricity or rural water system. They can be extremely expensive if service lines need to be extended by a utility company. If no public utilities are adjacent the pasture, then consider installing your own aboveground pipeline for a fraction of the utility company's cost. If you have a dependable surface water supply, protect it with fence, create a trenched well, add a solar pump system, roll out a pipeline, and distribute to tanks away from the water source. Again, keeping the water clean (separated from the cow) and available is the most important.

In many areas, expensive installation of the traditional freeze proof buried pipeline has given way to the stronger, more economical aboveground rolled pipe. Systems up to 6000ft can be installed for less than the usual cost of cleaning out one cesspool (excuse me, dugout). Having used the aboveground pipe myself and helped other producers for over 15 years install theirs, I can attest to its durability, flexibility and learning curve. Let's face it, plans change and sometimes mistakes are made in designing grazing systems. Aboveground pipe allows you the flexibility to make important changes as the need or desire arises. For new systems, I recommend that the system is laid out for at least the first two grazing systems before committing it to a burial, if ever.

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The Eastern Third continued by Rick Smith

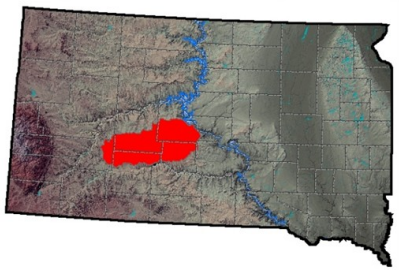
Being able to go over rocky ground or boggy swamps, through treebelts or culverts without destroying vegetation is also a plus. Producers can put in a whole system in a matter of hours. The limitations for numbers of watering sites, or subdivided pastures are all at the discretion of the producers, because now they are managing drinking water.

Water tank supplied by above-ground pipeline in Hamlin County, SD. Photo by Sandy Smart (2004).

Rick Smith is a farmer/rancher near Hayti, SD and the Lake Poinsett Watershed Coordinator. He can be contacted at 605-886-6513

A Historical View of the Bad River Watershed Project by Sandy Smart

Last week I attended the Soil and Water Conservation Society's annual meeting in Reno, NV. There I gave an update on our Conservation Effects Assessment Project of the Bad River. SDSU scientists, with funding assistance from USDA National Institute of Food and Agriculture (NIFA) and the Natural Resources Conservation Service (NRCS), gathered data from this long-term project. Over many years, best management practices (BMPs) were implemented with cost-share monies from SD Department of Environment and Natural Resources' 319 Non-point Source pollution project, SD Game, Fish, and Parks Department, NRCS, and US Fish and Wildlife Service.



Location of the Bad River Watershed in western SD.

We are in the process of wrapping up our study and will begin to publish our findings. This is a sneak peak at some of the results we found. The sediment concentration coming out of the Bad River has decreased since BMPs were implemented (beginning in 1995) even when flow rates where higher during this period.

Gauging station sediment concentration and flow rates at the mouth of the Bad River at Fort Pierre, SD from 1972-2011.

	All data		Flow rates >2 and < 12 m^3 per sec	
Period	Sediment	Flow	Sediment	Flow
	g/L	m^3/sec	g/L	m^3/sec
1972-1994	1.86	2.98	1.90	5.23
1995-2011	1.32	7.69	1.17	4.81
P-value	0.03	0.03	0.04	0.77

When the data was standardized (low and high flow rates removed), we found that the differences in sediment concentration were even greater between the pre-BMP and post-BMP periods.

These results confirm that conservation practices have improved water quality in the Bad River Watershed. In later issues I will give updates on the socio-economic impacts this study has identified.

Sandy Smart
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Calendar of Events

Event	Date	Location	Contact Person	Phone
Nebraska Grazing Conference	Aug. 13-14	Kearney, NE	Pam Murray	402-472-4101
Grassfed Exchange Conference	Aug. 20-23	Bismarck, ND	Josh Dukart	701-870-1184
SDSU Cottonwood Field Station Laboratory Grand Opening and Tri-County Ag Day	Sep. 7	Cottonwood Field Station	Adele Harty	605-394-1722
SD Grazing School	Sep. 10-12	Chamberlain, SD	Judge Jessop	605-280-0127
Red cedar burning workshop	Sep. 24	Pickstown, SD	Pete Bauman	605-882-5140
Patch Burn Grazing workshop	Sep. 25-26	Gary, SD	Pete Bauman	605-882-5140

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