



Grassroots

VOLUME 15 ISSUE 3

MAY 2013

BOARD OF DIRECTORS

James Faulstich,
Chair

Dan Rasmussen, Vice
Chair

Larry Wagner, Secre-
tary/Treasurer

Dale Boydston

Ellen Reddick

Doug Sieck

Bill Slovek

INSIDE THIS ISSUE:

Prescribed Fire 2
continued

Year Two Drought Strategies 3

White-tailed Deer in the Grasslands of the Northern Great Plains 4

2013 Bird Tour 5

2-Day Rangeland Monitoring School 5

The Eastern Third 6

New SDGC website 7
beefSD Class 2

Prescribed Fire Can Yield Positive Results, But May Not Be For Everyone

by Pete Bauman

The topic of fire use for rangeland management can be divisive at times. The recent escaped controlled burn near Lemmon, SD continues to receive a great deal of discussion in fire and ranching circles. I'm an avid user and supporter of prescribed fire as a grassland management tool. That said, any fire event that is unplanned can be damaging...even devastating...regardless of its potential ecological values. It is my hope that there can be positive outcomes from the Lemmon incident that will advance the understanding of fire use and potential benefits, especially in western South Dakota. We all hope those ranches are treated fairly in the reconciliation process.

Fire is like a lot of other management tools in that it tends to be positive when objectives and strategies are clearly identified and when implemented under the correct conditions. Fire tends to have negative consequences if these basic parameters are ignored or not accounted for.

Habitat managers have relied on fire for decades to remove old litter, stimulate seed set and vegetation production, control exotic species, and provide improved habitat. Progressive range managers and ranchers in various locals around the US and in other countries have utilized fire for general range management and livestock production. Like any tool, fire can be over utilized if ecological values and objectives are not taken into account.

In eastern South Dakota, I've seen nothing but positive results over the last 15 years from our ecologically based fires. However, until recently, very little data was collected to truly evaluate those results. Research we are now conducting through the Prairie Coteau Habitat Partnership on fire impacts to grassland production in eastern South Dakota and western Minnesota has been a real eye-opener. Our initial 2011 data indicated an average increase in production of 1,095 lbs/acre on privately owned native pasture from 2,724 lbs/acre on unburned pasture to of 3,819 lbs/acre on burned pasture (40% increase). On agency-owned native prairie/pasture, production increased by 1,079 lbs/acre from 1,939 lbs/acre on unburned plots to 3,018 lbs/acre on burned plots (56% increase).



Prescribed Fire continued on page 2

Pete Bauman going over the prescribed fire plan with Darwin Peckham. Photo by A. Smart (2008).

Prescribed Fire continued by Pete Bauman



Prescribed burn at Jim Kopriva's. Photo by Alaina Mousel (2010).

In the same study, when comparing native grass plantings such as CRP and habitat restorations, spring fire also showed positive impacts in regard to production. For low diversity grassland plantings (CRP), average production increased by 2,976 lbs/acre from 2,776 lbs/acre in the unburned plots to 5,743 lbs/acre in the burned plots (107% increase). For high diversity grassland plantings such as agency native seed harvest and re-plant projects, production increased by 2,543 lbs/acre from 1,786 lbs/acre in the unburned sites to 4,329 in the burned sites (143% increase).

Our 2012 data has been collected and is being analyzed, so I cannot report specifics here. However, we are confident that even though production was severely impacted due to the

drought, our fire trials will still outperform the non-fire areas. Our trials with the use of fire in a grazing rotation (patch burn-grazing) are consistently producing calves that wean heavier and cows in better condition. 2012 PBG projects in Chippewa County MN and Deuel County, SD both produced calves that averaged 25 lbs heavier than herd mates coming off of traditional rotation schemes. Cows in the MN project were estimated to be 50 lbs heavier than herd mates coming off traditional rotation pastures.

Fire can also be advantageous in that it can serve as a treatment for large areas. Grazing and haying – also valuable management tools – can mimic some of the effects of fire, although none of these tools can fully replicate the other. Hence the importance of diversified management for objectives.

NRCS, in conjunction with SDSU Extension, Pheasants Forever, The Nature Conservancy, and other organizations developed and hosted a prescribed fire planning course for landowners and NRCS staffers. The objectives of the trainings were to introduce CRP landowners and others to the new NRCS prescribed fire planning tool and to begin to foster a culture of fire education and implementation for private landowners. In 5 training sessions, we hosted over 120 people, which speaks to the relative interest in utilizing prescribed fire for CRP and other grassland management in Eastern, SD. We may have a bit of a longer road ahead of us in the west. I encourage you to keep an open mind about the use of prescribed fire for achieving certain goals, and if you've got a neighbor who is utilizing this tool, take the time to talk to them about it and learn more about what fire can do in your area. I'm always available to answer questions as well.

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



Year Two Drought Strategies

by Garnet Perman

With a large share of the state still suffering drought conditions, several producers were asked “What are your strategies for what is currently drought year two?” Doug Sieck (from Selby), Rick Doud, (from Midland), and Ed Blair (from Vale), shared their thoughts.

Sieck has already sold yearlings, but kept his replacement heifers. His cows started calving around May 1. He's keeping good notes in the calving book, and plans to cull heavily by June 1. “It's not a good year to be a bad cow...It is a good year to be a young cow,” he said.



Drought of 2002 near Buffalo, SD. Photo by Sandy Smart (2002).

A slow start to grass growth presented a problem for all three producers. Last year, Sieck started grazing on April 15. This year, he delayed grazing for about 30 days to allow the grass some time to grow. Various soil probe samples showed the top couple of inches were dry, but “decent” moisture farther down. He blames some of the slow start to grass growth on cold April temperatures, as does Ed Blair. Blair Bros. have also delayed grazing.

Not keeping yearlings this year gives Sieck an opportunity to work on soil health in his tame grass pastures. He intends to bale half and possibly swath graze the other half, depending on conditions. He hopes to feed in those pastures next winter. “I don't want to export nutrients,” he said.

He'll continue his practice of planting some crop land to cover crops, both warm and cool season. Grazing will be on a take half, leave half basis. Again, his aim is to improve nutritional and water holding capacity. “If you double organic matter, you've increased the holding capacity times 10,” he said. He feels the soil health benefits and lower crop inputs are a good trade off for planting crops every year.

The west central area of the state is under a category 4 drought classification. Rick Doud decided that rather than limp along, he'd rest his grass for a year. “We're raising grass, a cow and calf are just a tool to harvest it,” he said. Having already culled heavily last fall, he sent the last of the cows to the sale barn on May 3. The cows went to Oklahoma and Wisconsin. The decision wasn't easy, but once made, he's excited about his options. If it greens up, he can take cattle in, or buy yearlings. Not being heavily vested in genetics, he may buy back similar quality cattle. He and his wife are looking forward to spending more time with their long distance grandchildren this year.

As a purebred breeder, Ed Blair isn't interested in selling off a large part of his herd. He has a 4-step plan in mind. 1) If it doesn't rain, they'll wean their February and March calves in mid-June and background the calves. “It makes a big difference in how much the cows eat,” he said. 2) They will keep yearling heifers because they winter cheaper than cows and also keep the newest genetics. 3) Cull the old cows deeply. 4) Move cattle to another area if necessary.

Blair is optimistic that he won't reach step 4. Historically, water has been more of an issue than grass for their family, and all the pastures now contain pipelines. “I'm not giving up till the 10th of June,” he said, “It'll rain someplace.”

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

White-tailed Deer in the Grasslands of the Northern Great Plains

by Troy Grovenburg and Jonathan Jenks



Radio collared doe with two fawns in SDSU research. Photo by Kevin Robling (2009).

White-tailed deer are traditionally associated with forest habitat, yet populations in grassland regions of the Northern Great Plains thrive. An early study hypothesized that Conservation Reserve Program (CRP)-grasslands may provide a missing habitat component for wildlife in intensively managed agricultural areas with limited cover.

From 2005 to 2009 we investigated the relationship between adult and neonate deer and CRP in north-central South Dakota. Reductions in CRP enrollments beginning in 2007 provided a unique opportunity to evaluate white-tailed deer ecology during a period of changing availability of habitat in the region.

In our study area, average forested cover (mainly woodland plantings and shelterbelts) comprised only 1.9% of available habitat whereas CRP-grasslands constituted 5.7% of available land cover. However, by 2009, CRP grasslands had declined 40.4% to 3.4% of land cover.

Our findings indicated that adult deer showed strong selection for CRP during mild winters and during late spring/early summer. During mild winters, deer were able to access CRP without energy expenditure associated with movement through heavy snow or heat loss due to low temperatures. During late spring/early summer, deer use of CRP corresponded with the period of rapid vegetation growth and the onset of fawning.

Our fawn research indicated that abundance of CRP influenced bed sites, fawn home range size, daily movements, habitat selection, and survival. Although absolute loss of CRP in our study area was only 2.3% of total land cover, it represented a loss of approximately 21% of total cover habitat. Neonates selected bed sites in CRP which offered greater vertical height of vegetation than in surrounding areas, providing greater visual concealment, and better thermal insulation. Fawn home ranges and daily movements increased in size with loss of enrolled CRP land from 2007 to 2009. Interestingly, fawns showed strong selection for CRP during summer, but shifted their selection temporally between years. As CRP was returned to agricultural crop production, selection for wheat as a substitute for early-summer cover habitat increased. However, fawn survival was greater in areas with higher CRP and wetland density than in those with wheat. Additionally, our results indicated that wheat was an inferior early summer cover habitat because thermal insulation characteristics of wheat were less than CRP, which subjected fawns to hypothermia. Furthermore, our research indicated that grasslands and wetlands influenced predator behavior strategies of fawns by providing high quality habitat to escape predation when compared to fields of wheat. With limited forested cover in the region, we hypothesize that fawns and dams have adopted use of CRP. However, land use changes associated with conversion of grasslands may necessitate that deer find alternative cover habitats. Continued conversion of CRP and wetlands in the Northern Great Plains will likely lead to changes in home-range use, movements, resource selection, and fawn mortality.

Troy Grovenburg is an assistant professor and Jonathan Jenks is a professor at SDSU.

2013 Bird Tour June 14-15

This year's bird tour "Birds. At Home on the Range. Bird Watching Tour" will be hosted by Bill and Connie Smith, owners of Rosemont Valley Farm, near Montrose, SD about 20 miles west of Sioux Falls, SD.

Activities will begin at 4:00 pm and conclude with an evening bird walk on Friday June 14. On Saturday, June 15, the day starts bright and early at 5:30 am with coffee and rolls and a morning bird watching session from 6:00 until 10:15 am. During this time groups also will have an opportunity to learn about important invertebrates, grassland plants, nest dragging, and bird banding.

This is a whole family event! Kids will have plenty to do on Friday and Saturday with activities like building a bird house and a bird feeder.

College graduate credit is available. Contact Dr. Kristel Bakker for more information 605-256-5182 or kristel.bakker@dsu.edu.

To register: contact Judge Jessop (605) 280-0127 or find the brochure online at the SDGC website (www.sdgrass.org) under the Events page. Cost is just \$20 for adults and students are free.



Photo by Sandy Smart (2007).

2-Day Rangeland Monitoring School by Land EKG and SDSU Extension

SDSU Extension will be sponsoring a biological monitoring workshop July 30-31 near New Underwood, SD. The workshop will be led by Charlie Orchard of Land EKG.

This class is designed for any rancher or conservation manager seeking a rapid, repeatable monitoring program, right away.

Day 1, July 30: Redefining agriculture, tracking precipitation, grazing records, cages, and recovery pens, soil surveys, EKG grazing index, calculating forage production, and beginning transect and photo point set-up. Day will end with a discussion on findings of SDSU's Bad River Watershed study. (8:00am—4:00pm)

Day 2, July 31: Transects, record keeping, repeat photography, management direction, and use of EKG DataStore. (8:00am—4:00pm).

A limited number of tuition vouchers will be available through July 15. *Monitoring kit with materials to set up monitoring sites on your ranch is included in the registration fee (\$400 value)*



To register find the "Rangeland Monitoring School" brochure online at the SDGC website (www.sdgrass.org) under the Events page or contact Sandy Smart (605) 688-4014 or email alexander.smart@sdstate.edu for more information.



The Eastern Third by Rick Smith



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

At the risk of opening raw wounds, this post will focus on choice of breeding dates for cattle. March and April 2013 will not soon be forgotten by livestock producers in South Dakota and western Minnesota. Record cold and record snowfall amounts weekly compounded to make calving exhaustive for those prepared and near disastrous for those not. My intent is not to change, challenge, or criticize your livestock management regime, but offer my own experience and reasoning for changing to a May-June calving season.

First I believe strongly in having livestock be a part of my operation. Diversification of agricultural enterprises serves as an important business component to counteract; volatile commodity prices, climactic swings of drought to abundant rain, and seasonal labor surpluses or deficiencies. More recently I've come to realize the huge positive impact livestock have had on overall soil health. A beef cow herd or ewe flock can bring financial stability to an operation, but it brings another job, another marketing scheme and another list of capital investments. In short there are no free lunches, but to go without livestock is not good stewardship of land or human resources.

My operation is not looking for more hours to work. Being a one-man daily outfit and fulfilling needs of a watershed coordinator chews up most of the hours in a day. For 35 years I calved starting in late March and following through the month of April ending in mid-May. Once in a while bad weather would hit, but I never allowed any bad wrecks. A friend once said those kinds of spells (24/7) just identified the real cowboys from the rest. Time catches up, and dragging calves to shelter or treating a case of scours, while waiting for an upset momma to grind you into the earth just didn't seem like much fun anymore. It wasn't until I had read several stories about delaying calving until the grass was green, that it dawned on me how easy the tail end of my calving was. Since my first year of May 1st calving, I have never looked back and in my particular case would never go back to earlier calving.

From the cow's perspective- Her nutritional needs in the dead of winter are predominately maintenance= (less feed). Fresh new grass is high in protein =(high milk colostrums immunity). Unlimited grass =(high milk volume). Late term gestation in warmer temperatures requires less blood flow to heat her body =(less blood flow results in 2-5# less birth weights). Late term pushing and shoving at a feed bunk are eliminated =(calves don't get flipped into breach position or aborted). Cows get more exercise grazing= (stronger muscle condition for calving). Cows find secluded area to calve = (better bonding of cows and calves and less mixed families). Cows are on an increasing plane of nutrition prior to breeding= (tighter bred calving dates).

From calf's perspective-Easier and faster birth, less confusion of who mother is, not challenged by the weather, best immunity for entire life. From the bull's perspective- Late July and August may be hot, but humidity is lower than June or early July. Overall heat index is lower during day and

Eastern Third continued on page 7

Eastern Third continued by Rick Smith

much lower at night. From the cowman's perspective-Calving season is predominately tagging only season. Virtually eliminates health treatments and vaccinations are more effective resulting in less or no post weaning sicknesses. August has less farming time demands and allows good monitoring time of bulls during breeding season.

From the Banker's perspective- More calves to sell, more even age group, fewer doggy sick enders. Less winter feed bills and vet bills. Less capital used for buildings and heavy duty mud equipment. Still have option to retain ownership or feed live calves to traditional selling weights or move them into the higher priced stocker markets.

Cautions of moving cows later-You will have to get rid of bad uddered cows as the excess early milk will certainly cause problems. Have a plan for twins as I'm experiencing 5-10% twins from the boost in fertility. Catch calves within 24 hrs if you want them tagged.

Rick Smith is a farmer/rancher near Hayti, SD and the Lake Poinsett Watershed Coordinator

SDGC Website Gets a New Facelift by Sandy Smart

If you haven't checked out the SDGC website lately, you will be in for a pleasant surprise! This past spring the website went through an overhaul to make it easier to navigate. This effort was made possible by Dina and Jeff Vander Wilt of Mitchell South Dakota. We are grateful for their expertise and on behalf of the board I want to thank them both for a job well done!



A screen shot of the new SDGC website. To visit the website you can find us at:

www.sdgrass.org

beefSD Class 2



beefSD is an intensive educational program designed to take participants to the next level in beef production. Participation in the beefSD program is an excellent opportunity for beginning producers to help increase knowledge and understanding of all aspects of the beef industry and develop the skills needed to be successful. Everyone is welcome to apply, but priority for acceptance will be given to participants with experience of 10 years or less of their adult life in beef production.

To register by **June 15** contact Janna Kincheloe; beefSD Coordinator; (605) 393-2236 or email janna.kincheloe@sdstate.edu



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

Calendar of Events

Event	Date	Location	Contact Person	Phone
Range Camp	June 4-6	Sturgis	Dave Ollila	605-394-1722
Bird Tour	June 14-15	Montrose	Judge Jessop	605-280-0127
Rangeland Days	June 25-26	Kadoka	Mayola Horst	605-837-2292 Ext 3
			Shelia Trask	605-859-2186 Ext 3
Leopold Award Tour	June 28	Quinn	Judge Jessop	605-280-0127
Land EKG Workshop	July 30-31	New Underwood	Sandy Smart	605-688-4017
SD Grazing School	Sep 10-12	Chamberlain	Judge Jessop	605-280-0127
Patch Burn Grazing workshop	Sep 25-26	Gary	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@sdsu.edu, (605) 688-4017