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# Grassroots

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## The Greenside Up: Patch Burn Grazing Workshop Will Offer Unique Opportunities

by Pete Bauman

Back in the May issue of Grassroots, I wrote about the positive effects of prescribed burning on grassland productivity and habitat. Nested within that theme were the core concepts of grazing productivity and habitat. For many decades these two uses of grasslands were thought to be at odds. To go further, since the uses were believed to be at odds, the people who managed for those uses were also naturally believed to be at odds resulting in a lack of communication and mutual understanding.

Fast forward to today. How interesting it is to be a part of this exciting epiphany that is realizing that maybe everybody was wrong and these uses and the folks managing for the uses need not be at odds, but can be very complimentary. Because the perceptions are changing, the people who manage the uses are reconciling perceived philosophical differences at a remarkable rate. Maybe necessity breeds cooperation, but I like to think common sense is playing its part as well. That common sense is manifested in organizations such as the SD Grassland Coalition and its willingness to reach out to anyone who can help keep the green side up.

In keeping with this theme, we hope to capture at least a little bit of common sense during the 2013 Patch Burn Grazing Meeting slated for September 25-26 in Gary, SD. Now.....stay with me here.....this meeting/workshop will have a bit of everything and you need not care much about fire to get something from these field trips and speakers. In fact, those who are unsure of fire may want to come and learn a little more about this alternative tool. Regardless of how you feel about fire, I think the real learning opportunity here will be our ongoing case studies of private landowner and agency partnerships. That's what's got me excited to host this event!!!

Some of you reading this might have attended our 2012 Tri-state grazing workshop that was held last August at Dakota Magic Casino. During that workshop, we highlighted many emerging opportunities for private/public partnerships. We also had the privilege of visiting example sites where partnerships are working. For our upcoming meeting we'll be able to dive a little deeper into the framework of forming lasting relationships and partnerships.



Pete Bauman

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# The Greenside Up continued



The Nature Conservancy applying a patch burn at Darwin Peckham's near Bristol, SD in spring 2008 (Photo by A. Smart).

Day-one will take us to a cooperative partnership near Appleton MN where the MN DNR, The Nature Conservancy, and SDSU Extension are working with a local neighbor on a large-scale grassbanking project. We'll get to explore all aspects of this project and hear from the managers, the producer, and the scientists monitoring the effects on grassland species. In addition, we'll hear how the managers and producer are wading through the somewhat complex politics of the partnership.

Day-two will take us to a Nature Conservancy property near Clear Lake where we've been experimenting with neighbors on patch-burn grazing at a relatively small scale. Again, we'll hear from site managers, producers, and researchers on the effects of this management scheme. We'll also return to the

Buffalo Ridge Resort to hear from a host of speakers on the ecology and management of grasslands throughout the Great Plains who are using both grazing and fire to meet management objectives.

So regardless of your views on fire, consider joining us for what's certain to be a good time and a great learning experience. September is a great time to be on the land, so check it out. Visit [iGrow.org](http://iGrow.org) for registration and agenda information or email me at [peter.bauman@sdstate.edu](mailto:peter.bauman@sdstate.edu) or call me at 880-6542. See you there!!

(Also, stay tuned for upcoming information regarding 1-day drought and pasture insurance planning sessions to be offered by SDSU Extension.....more to come).

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



# Ranch Profitability

by Garnet Perman

All livestock producers know that keeping records is critical to sound management, but which numbers will tell the real story? Burke Teichert taught Ag Business and Farm and Ranch Management at Brigham Young University. He has managed several large ranches and has been involved in agribusiness. He currently is a consultant, speaker and contract manager with Carrus Management Solutions. Teichert spoke at the Nebraska Grazing Conference in August regarding the factors that go into ranching profitably. SDGC readers may find his indicators for ranch profitability worth considering.

Teichert's five essentials of ranch management include 1) an integrative and holistic approach, 2) continuous improvement of the key resources—land, livestock, and people, 3) use of good planning and decision making tools, 4) a war on cost, and 5) an emphasis on marketing. In order to work within Teichert's essentials, every ranch manager needs to focus on these four areas: Production, economics/finance, marketing and people. Most people do not handle all four well. Teichert recommends getting help for your weak area, be it from family, neighbors or ag professionals in the community.

Teichert's profitability formula includes the following:

**Net Income or Profit = Total Revenue** (average weight x price x number of head) - **Direct Cost** (Feed and Health) - **Overhead** (Equipment, Facilities, Labor)

The numbers that Teichert plugs into that formula are not necessarily the same numbers a banker might look at. His production indicators include tracking the pounds weaned/acre, yearling gain/acre, total gain/acre, the % pregnancy rate and % weaned calf crop. Notice he measures **per acre**, not per animal. It is possible to have more smaller cows producing more total weight than a smaller number of large cows. Another important ratio for Teichert is acres per cow and or animal days/acre. This is obtained by tracking days in a pasture along with the number of head adjusted to standard animal units. Over time, this ratio will tell you if your carrying capacity is increasing.

Teichert feels that the single best indicator of efficiency for costs is fed feed vs. grazed feed. Replacing a day of feeding with a day of grazing in almost every case markedly improves profit. Removing machine and labor costs is a high priority in his consulting work.

The most important number he uses in overhead costs is cows per man. Increasing cows per man doesn't mean piling more work onto fewer people. Good organization and strategic planning enable fewer people to handle the work. Financial indicators can be gained from the records already mentioned: Cost per cow, cost per calf, cost per pound of calf weaned, cost per yearling, cost per pound of yearling gain and the average sale price of cows compared to the cost of developing a replacement heifer.

Comparing cost indicators to production indicators helps guide decision making. The above parameters depend on well managed, time controlled grazing and understanding that a change in one area may have consequences in other areas. Being flexible enough to consider changes such as larger herds, smaller cows, or type of cattle raised is important. Taking the time to put management tools in place, such as committing a grazing plan to paper or writing up an inventory-based budget is critical to developing the operation's big picture. Teichert contributes regularly to *Beef* magazine and also contributes to other livestock publications. Several of his articles are available on the Internet.

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

# Anniversary “Change”

by Jim Faulstich

“Change” is desired by many this day and age. Some public officials use the motto of “change” to get elected. Many people could use more “change” in their pocket. Most producers could use a “change” in the precipitation cycle we are in, although it is much improved from 2012, and your South Dakota Grassland Coalition has also needed to “change” over the years.

April 16, 2013, was the 15<sup>th</sup> anniversary of the South Dakota Grassland Coalition (SDGC). The original seven directors and a COALITION of individuals and groups, had the foresight and saw the need for leveling the playing field for grasslands and offer educational opportunities to improve grasslands and profitability of grassland managers. None of that original group is directly involved with the board today, but many are still involved with the SDGC and its activities. Sadly, two of the original board members are deceased and our hats off to the entire group for their foresight. I hope we haven’t let them and their vision down, as we move the SDGC forward with higher expectations by our 25<sup>th</sup> anniversary.

And speaking of moving forward-----due to the increased number of activities the SDGC is providing, their involvement with other partners, and their promotional activities, the SDGC board of directors has changed the board structure and is now using a committee format to accomplish part of the board work load between our monthly meetings. The growth of your organization demanded “change” and it is a good change in my mind.

I make these comments to introduce to the membership and our partners, not only the new committee format, but to introduce a series of newsletter articles in the coming issues, of the newsletter, from the committee chairmen, to tell about their committee and to inform the membership of what’s going on. The first of these articles is from the Education Committee by Dan Rasmussen, who is chair of the committee. Boy, do these guys have their hands full and do a bang up job of carrying on the huge assignment of education. We have expanded education to include youth, legislators both in Pierre and Washington DC, and the general public, as well as the producers that care for our natural resources, especially the grasslands.

One other area that needs to be covered, is that not enough “THANK YOUS” can be said to all our dedicated members, partners, directors, and coordinators for their role in the growth and “change” to the SDGC over the years and especially as of late. Just to name a few that you may not be aware of, is a new format of the newsletter, or how about the new face of our website? How about a dedicated member donating a 12 gauge Benelli shotgun, complete with the SDGC logo and year engraved in the stock? A collector’s item valued at well over \$1200, and another member donating a livestock mineral feeder, with both of these items to be used as membership promotion for joining or renewing your SDGC membership. Talk about dedicated members and partners in support of the organization! I could go on, but I need to save Dan some room. Bottom line, the success of the SDGC is because of many of you stepping to the plate, and on behalf of the entire board, “thank you”.

We welcome your involvement and suggestions. Enjoy the newsletter and upcoming committee articles. Sincerely, Jim Faulstich, Chairman

# Eastern Red Cedar Control

by Shane Deranleau

When we reflect on landscape concerns and issues on our operations, we typically focus on the traditional management issues such as weeds, erosion, water, animals, etc. For those in the Southeast portions of our state, more and more attention has been given to the encroachment of Eastern red cedar trees poking into our grasslands and clinging to our slopes along the Missouri River. Should we be concerned? I believe the answer to that question is “look south”. Our friends and neighbors in Nebraska, Kansas, and Oklahoma have a story to tell. It is a tale of encroachment that began quietly along the creeks and rivers and began to take hold on the productive grazing lands above. It was a manageable problem until it became unmanageable. Once the cedar tree population took a foothold, it began overwhelming productive lands while states, agencies, and landowners invested a phenomenal amount of time and resources into taking back the once productive grazing lands.

Our story may be different, but I speculate we are just a few chapters behind. Eastern red cedar is a dynamic tree, with an impressive range and ability to adapt to different climates, soils, and landscapes. The population is spreading naturally along riparian areas with additional seed source from shelterbelt plantings. Wildlife, especially grassland birds, seem to find a suitable food source from the “blue mamas” (cedars bearing fruit) especially in drought years where food may be limited. Seed is dispersed far and wide. We see new growth in fencelines, draws, under telephone lines, and as I drive across the county, I find more and more productive grasslands with a shotgun population of little trees. When small, the impact is minimal. Yet when these trees begin to mature we find significant competition for nutrients, water, space, and sunlight, especially when canopy overlaps. Furthermore, the needles that fall contain allelochemicals that inhibit grass production underneath. For some landowners, this may provide decent wildlife habitat and scenic beauty. For others, this may present a threat to the land in which they must make a living, an expensive problem, and a loss of grassland production where every efficiency counts. For simple math, some producers have assessed up to a 25% loss in Animal Unit Months due to eastern red cedar invasion, a direct loss of livestock carrying capacity. For others, it can be a loss of cash rent. For example, if grassland AUM rental rates were \$30 per AUM for a 100 acre field, a 25% loss could equal a loss of \$750 profit a year.

One lesson we can take from our friends to the south is that the treatment cost increases with size and age of the tree. I do not know of a magic bullet treatment but we do have options. Many times, it is effective to triage encroachment, focusing on productive grazinglands first. Treatments on steep slopes or draws may be dangerous, costly, and may not result in a great enough return on investment. Treatment options are typically site specific. Effective treatment options include mechanical treatment (sheers, chainsaw, etc.), chemical (herbicides), biological (goats), and prescribed fire. Again, effectiveness and cost increases with the tree size and age. It should be noted that treatment is rarely a one time fix. Rather, it is a long term treatment strategy of current populations and maintenance of future propagation.

Eastern red cedar has taken hold along the Missouri river in South Dakota and is settling in for the long haul. Already we find many landowners collaborating with other operators, states, and agencies. The take home message for me is that we will not make progress alone. To stay ahead of the encroachment will require recognition of the problem, communication, and a multi landowner, local, state, and federal partnership. For further information and consultation contact Pete Bauman with SDSU’s Extension service or the Natural Resource Conservation Service in South Dakota which can provide cost share assistance with brush management.

*Shane Deranleau is rangeland management specialist with NRCS located in Mitchell, SD*

## Fence line Weaning Studies Validate Rancher Experience

by Garnet Perman

Producers who practice fence line or pasture weaning tend to be very pleased with the results, citing less stress on both calves and producers and improved health and gain. University studies by SDSU and Univ. Cal-Davis indicate that fence line weaning can be a viable alternative to traditional weaning strategies.



Fence line weaning at Rock Hills Ranch near Lowry, SD. Cows are locked up and the calves are out in the pasture grazing. Photo by Lyle Perman (2012).

In fence line weaning, calves are placed in a pasture next to their dams. They can hear, see and smell mama, but are unable to nurse. In these studies pasture weaned calves were compared to a similar group that had been completely separated from their dams and placed in a pasture or dry lot.

Calves received the usual vaccinations two weeks prior to weaning and the day of weaning. They were then watched for signs of disease and stress. The SDSU and UC-Davis studies both reported that the pasture weaned calves spent more time eating and less time walking the fence and bawling than calves completely separated from their mothers. No detrimental health affects involving immunity were reported for the fence line group or the traditional group in either study.

In the UC-Davis study, calves were weaned in May. The fence line weaned calves showed an advantage in weight gain over the traditional group. In the three year fall weaning SDSU study, weight gain of the fence line heifers that stayed on barley cover crop pasture was similar to the dry-lot group two out of three years. Forage quantity and quality limited gains in the third year due to limited growth of the cover crop that year.

Things to consider when fence line weaning:

1. Fencing should be substantial enough to keep cows and calves separated and prevent the calves from nursing. A variety of fence or combinations of electric and barbed wire can be used.
2. Put the calves and cows in the pasture the weaned calves will be in for about a week prior to weaning. They will learn where the water and fences are.
3. Some producers keep a cow or two with the calves to help them find water.
4. High quality forage is very important to the performance of pasture weaned calves. The need for supplementation in pasture weaned calves depends on forage quality and quantity and the desired weight gain.
5. Fence line weaning fits well into an operation where maximizing gain is not important such as in developing heifers or backgrounding calves.

SDGC members who are listed as mentors in this area include Dallas Anderson, Ed Blair, Jim Faulstich, Jim Kopriva, Dale Paulson, Dan Rasmussen, Ellen Reddick, and Larry Wagner.

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

# SDSU Cottonwood Field Station Celebration by Sandy Smart



Dean Barry Dunn and range professor Pat Johnson partake in the ribbon cutting ceremony of Cottonwood's new laboratory grand opening.

On Saturday September 7th, SDSU celebrated their grand opening of a new laboratory facility at the Cottonwood Range and Livestock Field Station. The ribbon cutting ceremony was performed by Dean Barry Dunn and range professor Pat Johnson.

The new laboratory has wet and dry sample processing capabilities, an office, a small meeting room, and garage space. The new facility will enhance the capabilities of scientists conducting range livestock production research and outreach activities by extension staff.

The program included remarks about the beef industry from keynote speakers Dr. Larry Corah, Vice President of productions for Certified Angus Beef, and Chad Mackay, President of El Gaucho Hospitality. SDSU Faculty and extension staff provided tours and breakout sessions on topics relating to historic research and current research projects from fetal programming in beef cows to patch grazing to promote heterogeneity.

The important work of renowned range scientist James K. "Tex" Lewis was recognized. The commitment to long-term grazing research was particularly noteworthy as it has lead to some foundational discoveries by past researchers in livestock production, range condition, watershed science.



(above) Tex Lewis' clipping van and crew getting ready to collect data at the Cottonwood Station. The van contained an electric generator that provided power for electric sheep shears used for clipping vegetation samples (Circa 1970).



(above) Checking on a weir from the watershed study in the 1960s to measure runoff and sediment from light, moderate and heavy stocking rates.

Current faculty poured over the 50+ years of data to further develop our understanding of rangeland production and climate variability as well as discoveries of grazing efficiency and ecosystems services. SDSU continues their commitment to furthering research, teaching, and outreach of this precious natural resource we call grassland.

(on the right) Clipping crew collecting data from the long-term stocking rate study in 2013.





Sandy Smart  
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## Calendar of Events

Event	Date	Location	Contact Person	Phone
Red cedar burning workshop	Sep. 24	Pickstown, SD	Pete Bauman	605-882-5140
HRM workshop	Sep 24-26	McIntosh, SD	Ryan Beer	605 –244-5222 ext 3
Patch Burn Grazing workshop	Sep. 25-26	Gary, SD	Pete Bauman	605-882-5140
Pasture walk	Oct. 2	Lowry, SD	Lyle Perman	605-845-6464
SD SRM/SWCS Meeting	Oct. 3-4	Chamberlain, SD	Kent Baumberger	605-853-2410 ext 114
HRM workshop	Oct 8-10	Eagle Butte, SD	Ryan Beer	605 –244-5222 ext 3
Range Beef Cow Symposium	Dec. 3-5	Rapid City, SD	Julie Walker	605-688-5458
SD Cattleman's Annual Meeting	Dec. 11-12	Pierre, SD	Jodie Hickman	605-945-2333
Winter Road Show	Dec. 16-19	TBA	Judge Jessop	605-280-0127
SDGC Annual Meeting	Dec. 18	Chamberlain	Jude 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](mailto:alexander.smart@sdstate.edu), (605) 688-4017