

Board of Directors

Lavern Koch, Chair

16746 227th Street
 New Underwood, SD 57761
 (605) 754-6718

James Faulstich, Vice Chair

33795 186th Street
 Highmore, SD 57345
 (605) 852-2622

Ellen Reddick, Secretary/Treasurer

1611 Reddick Lane
 Saint Onge, SD 57779
 (605) 642-3272

Mark Kieffer

13605 Neckyoke Road
 Rapid City, SD 57701
 (605) 341-1267

Lyle Perman

30872 143rd Street
 Lowry, SD 57472
 (605) 649-7629

Dan Rasmussen

HC 76 Box 20
 Belvidere, SD 57521
 (605) 344-2250

Larry Wagner

26314 350th Avenue
 Chamberlain, SD 57325
 (605) 894-4448

Annual Meeting Highlights

The South Dakota Grassland Coalition (SDGLC) held its annual meeting/tour in the Chamberlain area on Monday, October 9, 2006. Tours to Charlie Totton's and Larry Wagner's ranches showcased fenceline weaning. Much discussion took place on topics relating to fencing, vaccinations, cattle handling, and fall forages. There was general agreement that lower stress on calves and cows makes fenceline weaning enjoyable for everyone. Lunch was served and sponsored by Farm Credit Services of America at the Ola Hall followed by the business meeting. Changes to the constitution regarding the Secretary/Treasurer position being an elected board member was approved. Mark Kieffer and Lyle Perman's terms ended this year. They both were nominated and approved by the members to continue serving on the board of directors. Laverne Koch, Jim Faulstich, and Ellen Reddick remained as Chair, Vice Chair, and Secretary/Treasurer, respectively. Sandy Smart brought forward a motion from the South Dakota Section for the Society for Range Management (SD SRM) to ask the Coalition if they would be interested in combining newsletters and providing it electronically to the SD SRM members and mailing it to those who do not have email. Discussion followed, and the Coalition decided that the SD SRM could include and insert with the Coalition newsletter. Twenty one people attended, and despite a rather cold day, everyone had a good time.



In this Issue...

ANNUAL MEETING HIGHLIGHTS

SDGLC GRANT WORK

BOOTSTRAPS MEETING

SDSU RANGE PROGRAM

HRM COURSES

**CONSEQUENCES OF HEAVY FALL
 GRAZING**

CALENDAR OF EVENTS

For more information or other events the **SOUTH DAKOTA GRASSLAND COALITION** is involved with, please feel free to contact Sandy Smart or visit the website: <http://sdgrass.org>.

SDGLC Grant Work

The SDGLC has completed Segment 1 of the "Grassland Management and Planning Project". Judge Jessop, the project coordinator, has helped plan hundreds of thousands of acres and has been ahead of schedule for many of our goals. Our next phase, Segment 2, has been submitted to SD DENR for review. The Coalition proposes to continue the SD Grassland Management and Planning Project to further "Reduce sediment, nutrient and fecal coliform bacteria loading of surface waters in South Dakota by improving range condition". By improving range condition, water quality and wildlife habitat will be improved, biodiversity increased and grassland manager economic sustainability maximized. The range condition improvements will be attained by providing technical assistance to landowners for the planning and implementation of grazing management systems and conducting an information and education program on how to promote better grassland management. The proposal can be viewed online at:

<http://www.state.sd.us/denr/DFTA/WatershedProtection/FY2006319applications/November06applications.htm>

Brule, Buffalo, Lyman Counties Annual Bootstraps Meeting

Mark your calendars! On December 5, at the Cedar Shore Resort in Oacoma. Various topics such as predicting forage production, pasture renovation techniques, water and fencing improvements, cow management, and financial planning. For more info call Sandy Smart (605) 688-4017.

SDSU Range Program

The SDSU range program has been on a steady increase since 2001. We have gone from approximately 15 range majors to over 40 currently. Range Club has been active in attending the national meetings, and helping with both FFA and Rangeland Days. They have been very busy trying to fill nearly 20 requests for plant mounts. The program has been under excellent leadership with faculty members Patricia Johnson (20 years of service), Sandy Smart (5 years), Roger Gates (3 years), and Eric Mousel (1 year). Jobs for students seem to be plentiful, and our students have placed well.

Research and extension efforts continue to build toward answering applied questions relating to South Dakota grassland resources. Teaching efforts are also venturing into the future. We

are in the early stages of developing online range courses. There is a current working relationship with grassland programs from Univ. of Missouri, Kansas State Univ., Univ. of Nebraska, and SDSU to develop a group of graduate level online courses covering a variety of grassland related topics. We anticipate that courses would start being available in Fall 2007.

HRM Courses

The Coalition is sponsoring several Holistic Resource Management (HRM) courses this fall/winter. The certified educator is Wayne Berry from Williston State College in North Dakota. These 2-day workshops are free, and meals are provided. Sign-ups are on a first come first served basis. Typically, there is room for 30-60 participants. This year courses will be held in Watertown, Mitchell, Kadoka, Bison, and Rapid City. For questions contact Ellen Reddick (605) 642-3272.

Consequences of Heavy Fall Grazing

Fall is a critical time for perennial plants to prepare themselves to survive the cold dormant season. Plants rely on non-structural carbohydrates (simple sugars) and nutrients as food to

maintain themselves over the winter and to later replenish the photosynthetic leaf area in the spring.

Why is fall so critical? A plant has 2 main channels that transport food and water throughout its system. Water is transported through the xylem, and photosynthate (sugars) is transported through the phloem. The xylem is a *one-way street* where water is moving up from the roots and out the leaves (called transpiration). The phloem transports the products of photosynthesis (sugars) to the areas that are demanding them the most (we call them sinks). These are usually roots, shoots, and leaves. The phloem is a *two-way street*. It can transport sugars up and down the plant depending what the plant needs to grow or store. In the fall, the day length is shortening every day. The reducing day length triggers the plant to channel the products of photosynthesis to the storage places. In grasses, these usually are the stem bases, rhizomes, and larger roots. In the spring the plant moves the carbohydrates from the storage places to the actively growing buds and leaves. The reason why fall is critical is if the active storage process is disrupted through clipping, then the plant is tricked into using the carbohydrates to grow new leaves when it should be investing it in the storage places. This would be analogous to giving your children money for college, but they spend it elsewhere (beer, clothes, music, etc.) and have nothing to show for it. (Not as if this has ever happened to me.)

Consider the following experiment that I conducted in Brookings last year. I applied 2 clipping heights (2 inches and 6 inches) at 3 dates (September 1, October 1, and November 1) in 2004 to a pasture dominated by Kentucky bluegrass, smooth brome grass, and intermediate wheatgrass. In spring, I measured productivity by clipping the plots and weighing the grass on May 27, 2005.

Table 1. Fall clipping date and intensity effect on spring growth in Brookings, SD.

Clipping date 2004	Intensity	Yield on 5/27/2005 --- lb/acre ---
Control	No clipping	1160
September 1	Light clipping	950
	Heavy clipping	870
October 1	Light clipping	1040
	Heavy clipping	840
November 1	Light clipping	1000
	Heavy clipping	890

In Table 1, the unclipped control had more production than any other clipping treatment. That illustrates the process of defoliation disrupting the carbohydrates and nutrients from being stored. The lightly clipped plots had more production than the heavy clipped plots which would be expected. If you think of the differences in relation to the control, the light clipping averaged 86% of the unclipped control. The heavy clipped plots averaged 75% of the control. So, while the numbers in terms of yield aren't vastly different (a few hundred pounds per acre), the data illustrates the process. If pastures are continually grazed heavily in the fall, you could easily imagine that the cumulative effects would cause a natural shift from smooth brome grass and intermediate wheatgrass to a mostly Kentucky bluegrass dominated. My guess is that sort of thing has happened in eastern South Dakota on a lot of pastures over the years.

So what is one to do? That is where a rotational grazing system and the use of crop residues or annual fall pasture might work to alleviate the reoccurrence of grazing the same pasture in the fall year after year.

If you have question about these ideas or anything else please visit with the directors of the Coalition, myself, or SDSU Extension, and we would be happy help you.

Sandy Smart, Associate Professor, Range Science, SDSU



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

Calendar of events:

Event	Date	Location	Contact Person	Phone No.
SDGLC Board Meeting	Nov. 8	Pierre	Laverne Koch	754-6718
HRM Course	Nov. 8-9	Kadoka	Ellen Reddick	642-3272
SDGLC Board Meeting	Dec. 4	Pierre	Laverne Koch	754-6718
Brule, Buffalo, Lyman Bootstraps	Dec. 5	Oacoma	Sandy Smart	688-4017
National GLCI	Dec.10-13	St. Louis, MO	Laverne Koch	754-6718

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