

2013 GRASSLAND CONSERVATION PLANNER

United States Department of Agriculture



Natural Resources Conservation Service

in partnership with the

SOUTH DAKOTA



GRASSLAND
COALITION

*Cover photo courtesy of
Kernit Grimshaw Photography*



2011 Photo courtesy Lyle Perman, Lowry, SD

South Dakotan Grassland Managers,

With the close of 2012 and drought conditions that we hope we won't see again in our lifetimes, we can say we have come a long way in understanding and managing our natural resources. Conservation efforts can be seen across South Dakota and more than 75 years of conservation progress certainly mitigated the damages of the 2012 drought!

At the start of 2013, many of us are thinking about from where we have come, celebrating our accomplishments, and looking ahead to the upcoming year. As a land manager, you develop goals for your operation that include economics, environment and community.

Through this 2013 Planner, the South Dakota Grassland Coalition (SDGC) is working with the U. S. Department of Agriculture Natural Resources Conservation Service (NRCS) to improve the health of South Dakota's grassland resource.

The SDGC, NRCS, SDSU Extension Service and other entities can assist you to determine and formulate resource protection and enhancement options that fit your operation.

*Board of Directors and Members of the
South Dakota Grassland Coalition*

Depending upon the area of expertise and/or need for financial assistance, staff are available through NRCS and SD Conservation Districts, and other partners such as the SD Grassland Coalition, SDSU Extension specialists, the U.S. Fish and Wildlife Service and the South Dakota Departments of Agriculture and Game, Fish and Parks, and private organizations, such as Pheasants Forever, Ltd., who may have additional avenues of assistance.

Technical help is available for:

- Soil Health
- Water Quality and Quantity
- Grazing Systems
- Fencing
- Monitoring Techniques
- Drought Management
- Grasses for Forage Production

Thank you for your part in keeping healthy the environment we all share. Enjoy the 2013 Grassland Conservation Planner!

*Jeff Zimprich, State Conservationist South Dakota
Natural Resources Conservation Service*

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Windbreaks/Shelterbelts provide protection lowering livestock maintenance requirements.
During Fiscal Year 2012, NRCS, conservation districts and other partners planted over 873,000 trees and shrubs on over 2,600 acres across South Dakota.

January 2013

SUNDAY

MONDAY

TUESDAY

WEDNESDAY

THURSDAY

FRIDAY

SATURDAY

Mark your calendar for SDSU Extension, NRCS and other conservation partner workshops throughout the year.

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New Years Day

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2013 SD Leopold Conservation Award Nomination Period Opens

Finalize grazing plans for this growing season.

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If your operation needs improvements on your grazing lands, consider applying for the Environmental Quality Incentives Program (EQIP) or the Conservation Stewardship Program (CSP). Signup is continuous.

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Martin Luther King Jr. Day

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DECEMBER 2012

FEBRUARY 2013

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Grazing Systems - The 2012 Leopold Conservation Award winner, the Kopriva Ranch in Clark County, SD, uses a rotational grazing system to manage the grasses in their pastures. Monitoring and timing are important as they consider season-long forage production for both cool-season and warm-season vegetation. Koprivas used conservation technical assistance and some financial assistance through EQIP as they developed their water sources and fencing as part of their long-term plan with their rotational grazing system.

February 2013

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MONDAY

TUESDAY

WEDNESDAY

THURSDAY

FRIDAY

SATURDAY

JANUARY 2013						
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MARCH 2013						
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Consider frost seeding/over seeding of legumes or native grasses.
Purchase quality seed— Pure Live Seed (PLS)

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Last day to apply for
2nd Ranking Period
Environmental
Quality Incentives
Program (EQIP).
Signup is
continuous.

Lincoln's Birthday

Ash Wednesday

Valentine's Day

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Washington's Birthday
President's Day

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Conservation easements can keep working lands
in production while protecting the grassland
resource. Contact NRCS or USFWS for options
and payment rates.

Groundhog Day

World Wetlands Day



Photo: Daybreak Ranch, Highmore, SD

Drought Planning - This pasture in East Central South Dakota is in the Conservation Reserve Program (CRP) and was planted with a warm-season grass mixture. In 2012, due to the drought, grazing was allowed. Since CRP isn't usually released for grazing/haying until August 1, this CRP pasture has grasses that are quite a bit more palatable than the cool-season mixes. The nesting cover is also a benefit to the operation. The choice for warm-season grass mixes is part of this rancher's Drought Plan.

March 2013

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MONDAY

TUESDAY

WEDNESDAY

THURSDAY

FRIDAY

SATURDAY

FEBRUARY 2013						
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APRIL 2013						
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Based on rainfall amounts received last fall and precipitation forecast for this spring, determine if grass production will be reduced this spring. Develop and/or revise action items within your drought contingency plan as needed. The NRCS SD Drought Tool is useful; it can be found under the "Quick Links at <http://www.sd.nrcs.usda.gov/technical/>.

2013 SD Leopold Conservation Award Nomination Period Closes (postmark)

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Daylight Saving Time Begins

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St. Patrick's Day

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National Agriculture Day

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2013 SD Leopold Conservation Award Finalists Announced
First Day of Spring

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Palm Sunday
24/31

Easter Sunday

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Inventory fences, water systems; perform repairs.

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Good Friday

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Review last year's grazing records. Document adjustments and/or changes for this year's grazing plan.



Wildlife-Friendly Fencing



Monitoring Exclosure



Leave Adequate Vegetation for Better Infiltration



Many South Dakota ranches, including the Smeenk Ranch, near Newell, use wildlife-friendly fencing practices for antelope and other wildlife. Many operations use monitoring to adjust time in grazing systems and accommodate nesting seasons. Healthy grasslands keep “residue” on the soil surface to retain moisture for better infiltration into the soil profile rather than allowing precious precipitation to run-off.

April 2013

SUNDAY

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TUESDAY

WEDNESDAY

THURSDAY

FRIDAY

SATURDAY

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2013 SD Leopold Conservation Award
Winner Notified

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Assess growth of introduced cool-season pasture. Continue to use hay, grains or silage forages if spring pasture growth is less than 3-leaf stage.

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2013 SD Leopold Conservation Award
Winner Announced
Earth Day

Do you have a Drought Plan...?

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Early in 1933 a huge Black Blizzard occurred that wiped out most of the crops that had managed to make it until then. By the end of 1933, Black Blizzards occurred a total of 139 days. In May of 1934, a Black Blizzard made its way to Washington, D.C. and New York City. In April 1935 a Black Blizzard blew across the plains at 65 miles an hour. This day became known as Black Sunday. On April 27, 1935, President Roosevelt created the Soil Erosion Service.

MARCH 2013						
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MAY 2013						
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Rotate herds quickly in the spring when forage grows fast and to control species composition. Plan and complete Spring weed control. Spot spraying may be necessary.



Livestock photo: Dave Steffen, Burke, SD-In 2012, this 9.8-acre paddock was deferred to August 1 under the Conservation Stewardship Program (CSP). On 8/1/12, 110 head of 800 lb. yearlings were turned in for 2 days grazing. The high temperature was 104 degrees; annual precipitation to that date was 10.58 inches. Livestock harvested an estimated .52 Animal Unit Months of forage per acre or approximately 40 percent utilization of the standing crop.



Dams and Dugouts



Pipeline



Stream Crossing



Nose Pump

Water Quality and Water Quantity can be an issue in the Great Plains. Water development and placement is a key element to achieve an even grazing distribution in pastures in a comprehensive grazing system. Technical assistance, as well as financial assistance, through conservation programs can help producers plan for optimum production on their acres.

May 2013

SUNDAY

MONDAY

TUESDAY

WEDNESDAY

THURSDAY

FRIDAY

SATURDAY

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JUNE 2013						
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Remember to enter information in your Record for Livestock Grazing.

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May Day

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Is there is a delay in green-up of native grasses? Make adjustments to turn-out dates dates accordingly.

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Mother's Day

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15 Start of primary nesting season for grasslands enrolled in NRCS and other programs.

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Armed Forces Day

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Watch for grass tetany.

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Memorial Day

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Move animals based on plant height NOT calendar dates!

Place salt and mineral away from water resources to provide for better range utilization.

Control seed heads through timing of grazing for better forage quality.



Western wheatgrass stands out in the winter pasture at the The Mortenson Ranch, Stanley County, SD 2011 SD Leopold Conservation Winner



Cool Season Grasses and Native Plants - Over 1,300 different kinds of plants can be found in the South Dakota grasslands. Having an inventory and goals for forage production and harvest is important for understanding and managing the ecosystem.

June 2013

SUNDAY

MONDAY

TUESDAY

WEDNESDAY

THURSDAY

FRIDAY

SATURDAY

MAY 2013						
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JULY 2013						
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Remember to enter information in your Record for Livestock Grazing.

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Begin to seed summer annual forages.

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Got a Drought Plan yet?

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Check water sources frequently.

Flag Day

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Father's Day

First Day of Summer

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Watch grazing heights and rest periods carefully!

Conservation technical assistance helps producers manage their land to meet their goals and conservation objectives. Planning includes long-term methods and strategies, such as interseeding and grazing techniques, for sustaining or altering plant communities to support the needed production in the operator's grazing system.

During 2012, the grazing system including this pasture in central South Dakota was designed around building soil health through organic matter which will result in improved water cycling (infiltration) and improved biodiversity of both plants and animals. This photo shows three days grazing to harvest forage yet balance grassland health of a newer seeding.



Temperature: 103 degrees
8/ 1/2012 13:06

Warm season grasses and native plants thrive in hotter weather and provide optimal nutrition during the "dog days" of summer. Balancing grazing with maintaining plant heights moderates soil temperature.

July 2013

SUNDAY

MONDAY

TUESDAY

WEDNESDAY

THURSDAY

FRIDAY

SATURDAY

- Graze annuals at 18-24" height
- Watch pasture for weeds & invasives
- Remember to enter information in your Record for Livestock Grazing.

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Independence Day

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If drought conditions occurred last spring and continue now, forage production will be reduced for the season. Action items for herd management and adjustments to the grazing plan will need to be implemented.

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Check water sources frequently. Condition of water sources, i.e., sediment or algae can reduce an animal's water intake.

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Field check growth before turn into warm-season grass pastures.

Thistles are best controlled at boot stage.

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- Evaluate shade/ water needs and plan for next year.
- Slow rotation and lengthen rest periods

JUNE 2013							AUGUST 2013							
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Management techniques and tools such as monitoring exclosures for forage production are useful for determining degree of use and affirming rotation schedules in rotational grazing systems. Infiltration rings provide valuable insight how forage management is impacting soil health and its ability to retain moisture. This 6-inch diameter ring is pounded in with about 2 inches above the soil surface. Apply 444 milliliters water over a plastic film. That amount is equivalent to one inch of rain on an acre. Use a timer to see the length of time the water needs to soak in. A very fast time means precipitation will infiltrate rather than run-off the pasture. Basically, if you see the water soak in before you stand up, that is good!

August 2013

SUNDAY

MONDAY

TUESDAY

WEDNESDAY

THURSDAY

FRIDAY

SATURDAY

JULY 2013						
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SEPTEMBER 2013						
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Remember to enter details in your Record for Livestock Grazing.

1 Start planning for native seed harvest.

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Continue to implement Drought Contingency Plan action items as needed.

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15 End of primary nesting season for grasslands enrolled in NRCS and other programs.

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Consider cover crops as alternative forage; plant into small grain stubble.

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During the tour, the 2012 South Dakota Leopold Conservation Award winner, the Kopriva Ranch in Clark County, SD, outlined their grassland restoration efforts that have increased forage production to meet the management objectives of their cattle operation while sustaining their natural resources.



Continuing Education - Membership in organizations and attending professional meetings, tours and workshops can provide the latest technical and scientific information on agriculture, conservation and stewardship.

September 2013

SUNDAY

MONDAY

TUESDAY

WEDNESDAY

THURSDAY

FRIDAY

SATURDAY

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Labor Day

Rest warm-season grasses through mid-October.

Remember to enter details in your Record for Livestock Grazing.

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Continue to implement Drought Contingency Plan action items as needed.

Patriot Day

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Targeting cool-season grasses now can relieve pressure on warm-season grasses and/or improve control of undesirable cool-season, exotic grasses in your pastures.

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Plan winter feed supply.

First Day of Autumn

Evaluate calf marketing program.

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AUGUST 2013

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OCTOBER 2013

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Photo Adam Roth, Hyde County, SD

Build Herd Management Techniques into Your Grazing System

In a fenceline-weaning system, calves and cows have nose-to-nose contact. The result is a healthier, more profitable herd and less stress on the livestock (and you)! Dale Boydston, New Underwood, SD, has a fenceline weaning system and uses bird watching binoculars for checking calves. He says entering the area only tends to upset the cows and draw them to you. Dale restricts the cow's access to water providing their water away from the calves preferably a half mile or more. He says many cows don't come back after the second day.

October 2013

SUNDAY

MONDAY

TUESDAY

WEDNESDAY

THURSDAY

FRIDAY

SATURDAY

SEPTEMBER 2013						
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NOVEMBER 2013						
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- Allow animals to graze alternative forage sources, such as cover crops or cornstalks, to allow a rest period for pastures.
- Try strip grazing the stalks to reduce trampling.

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Conduct annual soil tests on fertilized pasture.

Columbus Day/Native American Day

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Enjoy the results of your management!
Plan an outing with a kid for pheasant, grouse, deer or duck hunting and introduce them to what conservation looks like!

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If your operation needs improvements on your grazing lands, consider applying for the Environmental Quality Incentives Program (EQIP) or the Conservation Stewardship Program (CSP). Technical assistance is free and financial assistance signup is continuous.

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Continue to implement Drought Contingency Plan action items as needed.

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Halloween

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Remember to enter details in your Record for Livestock Grazing.



Photo: Daybreak Ranch, Hyde County, SD

Grazing cover crops or stubble fields provides alternative forage.



Cover crop "Cocktail Mixtures" provide the most Soil Health benefits.



South Dakota Grassland Conservation
evaluate 2013, plan for 2014 and the next generation.

December 2013

SUNDAY

MONDAY

TUESDAY

WEDNESDAY

THURSDAY

FRIDAY

SATURDAY

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Test forages and hay before feeding; results can improve winter feeding efficiency.
Separate animals by nutritional needs: lactating or gestating stock need your BEST forages.

Pearl Harbor Remembrance Day

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Monitor body condition score trends of your herds.

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First Day of Winter

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Christmas Day

Kwanzaa Begins

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New Year's Eve

Did you remember to take a vacation
this year? Plan for next year!

NOVEMBER 2013							JANUARY 2014						
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GRASSLAND PLANNING



**Kopriva Family, Raymond, SD
2012 South Dakota
Leopold Conservation Winner**

Many resources are available to help you to determine and formulate resource protection and enhancement options that fit your operation.

Technical help is available for:

- Soil Health
- Water Quality and Quantity
- Grazing Systems
- Fencing
- Monitoring Techniques
- Drought Management
- Grasses for Forage Production



Photo: Anderson Ranch

Depending upon the area of expertise and/or need for financial assistance, staff are available through the following conservation partners:

**South Dakota
Grassland Coalition**
www.sdgrass.org

**USDA Natural Resources
Conservation Service**
www.sd.nrcs.usda.gov
(605) 352-1200

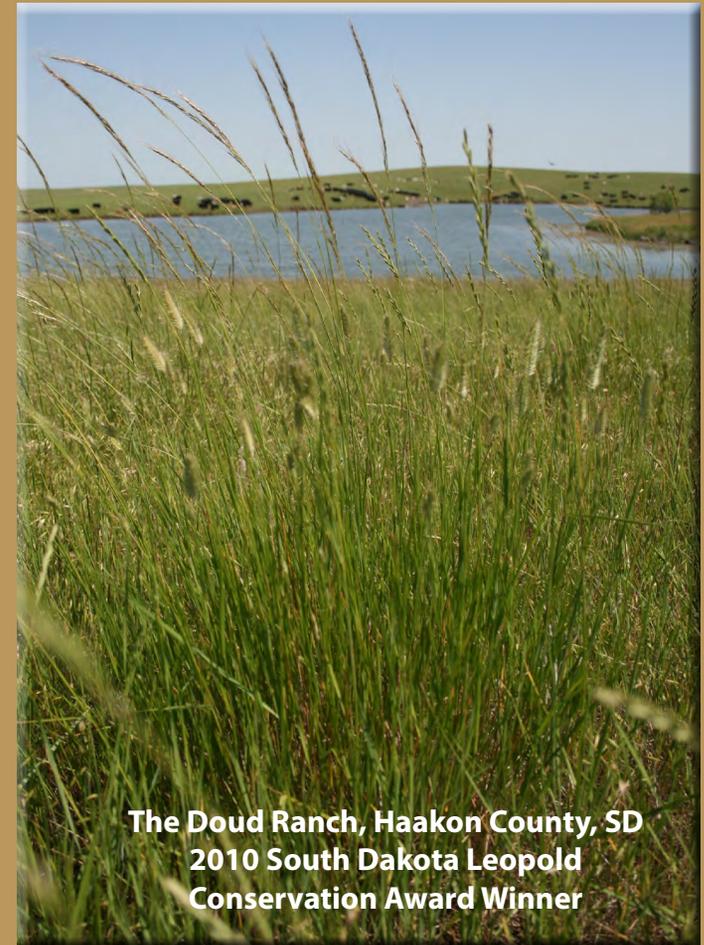
**South Dakota
Conservation Districts**
www.sdconservation.org
(605) 895-4099

**South Dakota
State University (SDSU)
Extension Service**
<http://igrow.org>
(605) 394-2236

**SD Department of
Agriculture**
<http://sdda.sd.gov/>
(605) 773-3375

**South Dakota
Game, Fish and Parks**
<http://gfp.sd.gov/>
(605) 223-7660

**Dan and Sharon Anderson Ranch, Bison, SD
Excellence in Grazing Management Award
Society for Range Management, South Dakota Section**



**The Doud Ranch, Haakon County, SD
2010 South Dakota Leopold
Conservation Award Winner**

**U.S. Fish and Wildlife
Service, Brookings**
[www.fws.gov/
mountain-prairie/pfw/sd](http://www.fws.gov/mountain-prairie/pfw/sd)
(605) 697-2500

Pheasants Forever
<https://pheasantsforever.org>
(605) 651-2716

Ducks Unlimited
[www.ducks.org/south-
dakota/](http://www.ducks.org/south-dakota/)
(605) 881-3379

Use a Systems Approach - grazing systems range from continuous use of one pasture over a long period of time, to intense grazing of small areas for short periods of time. There are trade-offs for every system, and you'll have to decide which system works best for your operation. You may want to combine concepts and develop a system that works into your time schedule, livestock operation and available pasture.



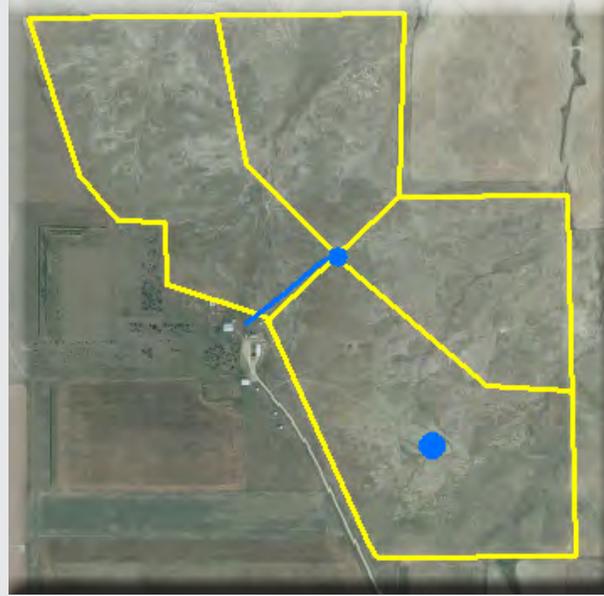
Continuous grazing is a one pasture system where livestock are left to graze in a large area for the entire growing season.

Advantages:

- Requires least labor and time.
- Capital costs are minimal.
- Animals usually eat the best plants if not overstocked.

Disadvantages:

- Lower stocking rate and less pounds produced per acre.
- Higher stocking rates can lower quality of forage and yields.
- Uneven pasture use.
- Weeds and brush may be a problem.
- Both overgrazing and under grazing can occur in the same pasture more easily because of a lack of options to move livestock.
- Animal manure is distributed unevenly.
- Soil and plant health is usually degraded.



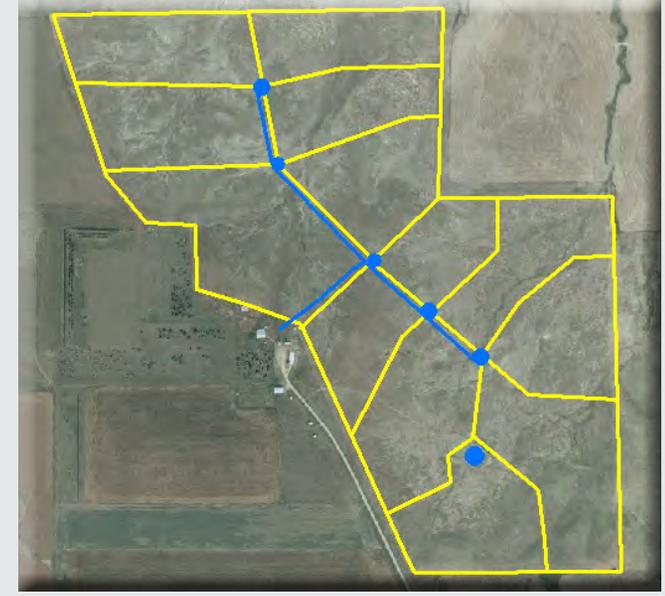
Rotational grazing is a system with more than one pasture in which livestock are moved according to a planned system that meets goals and objectives for production and sustainability.

Advantages:

- Can increase forage production and condition of pasture over a continuous system.
- Allows pastures to rest and allows for regrowth.
- Can provide for longer grazing season, reducing winter feed.
- More even distribution of manure throughout.
- The benefits of Rotational Grazing come from improved harvest efficiency rather than greater production.

Disadvantages:

- Fencing costs and water supply establishment can be higher than in continuous systems.



Intensive management is a system with several pastures, sometimes referred to as paddocks. Livestock are moved often from paddock to paddock, according to forage use and allowing for rest periods.

Advantages:

- Highest harvest efficiency per acre.
- Weeds and brush are usually controlled naturally.
- More even distribution of manure throughout.
- Usually increases stocking rates and livestock seem more content.
- Paddocks may be seeded or interseeded to different forages, depending on producer's goals and objectives.
- Longer rest periods improve grass and soil health.
- Paddocks and forages are grazed more efficiently.
- Livestock benefit from careful monitoring accompanying frequent rotation.

Disadvantages:

- Requires careful monitoring of forage.
- Initial costs may be higher due to fencing materials and water.
- Water distribution systems may be more complicated due to increased number of pastures.



Photo: Lyle Perman, Lowry, SD

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