



Custer County Conservation District was established in 1940.

Special points of interest:

- Drought research
- Forestry workshop
- Firewise

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Landowner Forestry Workshop in Argyle

On March 28, the Custer Conservation District hosted a landowner workshop at the Argyle Volunteer Fire Department to discuss topics related to private forest management and protecting your home from wildfire. The workshop titled "Forestry Management in Action", had roughly 70 attendees. Speakers from Federal, state, and local agencies contributed talks and lunch was sponsored by the South Dakota Family Forests Association. After lunch participants were able to tour property that was recently thinned using cost-share funding.

Tony Seidl, Forest Health Program Coordinator for the SD Dept. of Agriculture and Natural Resources (DANR), presented information on

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Workshop field tour of recent thinning project funded through a cost-share program (above). Workshop participants listening to speakers at the Argyle VFD fire hall. Photos by Patricia Weyrich, SD DANR-RCF.

Drought Study Examines Grassland Productivity on the Buffalo Gap National Grassland - by Erika Reiter, USDA Forest Service

Dr. Jacqueline Ott, research ecologist with the USDA Forest Service Rocky Mountain Research Station, is partnering with Dr. Amy Symstad from the U.S. Geological Survey and Dr. Troy Ocheltree at Colorado State University on a four-year study on the Buffalo Gap National Grassland.

The study will use the grassland's response to

drought scenarios to offer tailored management tools to land managers seeking strategies for long-term resilience on these grasslands. Specifically, the researchers aim to provide managers with metrics they can use to determine whether they should adjust their grazing practices during or after a drought.

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Drought experimental site. Photo by Erika Reiter, USDA.



Forestry Workshop continued

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tree pests and diseases in the Black Hills including Ips pine engraver beetles, mountain pine beetles, and the recent pine looper outbreak near Pringle. Tony emphasized maintaining healthy forests on both private and public land as the best tool to minimize insect threats.

Adam Fritz, Assistant Fire Management Officer for SD Wildland Fire, provided information on Firewise principles that landowners can employ to reduce the risk of wildfire threats to their home and property. Adam emphasized that many homes lost to wildfire were a result of burning embers and strong winds, which ignited fuels next to the homes. Examples of these fuels can include pine needles in roof valleys and gutters, wood landscaping mulch, shrub/bushes planted next to the home, and firewood stacked too close to the house. SD Wildland Fire offers cost-share assistance to landowners to reduce fuels near homes. If qualified, they can pay 80 percent of contractor costs for performing forest thinning around your home.

Brad Humbracht, District Conservationist with the Natural Resources Conservation Service (NRCS), spoke about technical assistance that NRCS can provide to landowners. He also touched on cost-share programs traditionally available through the agency. Mike Baldwin, Custer County Conservation District, also spoke on cost-share available through the District for non-commercial thinning projects on private property. He also provided a brief history of how the Conservation Districts were created. Custer's



Some of the workshop participants on the field tour. Photo by Patricia Weyrich, SD DANR-RCF.

was created in 1940 and will celebrate its 85 anniversary this year.

To close out the workshop, Patricia Weyrich, Rural Forestry Program Coordinator with SD DANR, spoke on the topic of Forest Stewardship Plans, which can be a valuable tool for landowners managing their property. They may also be a necessary item for property owners trying to obtain/maintain agricultural status for tax purposes. As a consequence, there is a high demand for these plans.

For more information about cost-share assistance programs or other topics discussed at the workshop, contact the Custer County Conservation District office.

Untreated forest (left) and thinned forest (right) observed during the workshop field tour. Note the lack of understory vegetation in both photos. Herbaceous vegetation is expected to return in the treated stand now that there is less competition for light and resources. Photos by Patricia Weyrich, SD DANR-RCF.



2025 Recipient of Conservation District's Annual Scholarship



The Custer Conservation District is pleased to announce Brylee Grill as the recipient of the 2025 scholarship. The District received several well-qualified applications.

Brylee will receive a \$1,000 scholarship to further her education after high school. She plans on attending Southeast Technical College and pursue a degree to become a Veterinary Technician. Congratulations to Brylee and best of luck to you in your future endeavors!

District Sponsoring Student to Attend Conservation Camp

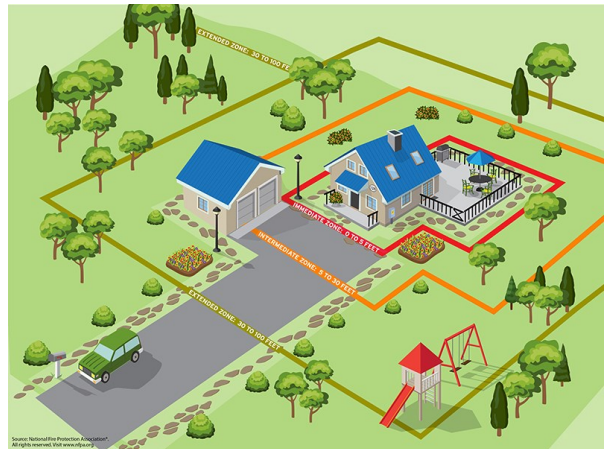
The District is sponsoring a high school student, Sami Owens, to attend the South Dakota Wildlife Federation Youth Conservation Camp this June. The camp provides opportunities for students to learn about conservation and environment issues, game management, forestry, and fisheries. The camp is held annually at Camp Bob Marshall.



Firewise: Reducing Wildfire Risks at Home

Wildfire is a natural component of the Black Hills ecosystem with historic fire intervals ranging from 10 to 40+ years. In the southern Hills, those fires tended to occur more frequently. Wildfire risks to home and property can be a serious concern to landowners, especially to those whose home or neighborhood is at or near the wildland urban interface. When wildfires do occur, questions often arise after a devastating fire such as "Why were some homes lost and other homes were not?" and "Is there something we can do to protect our property from future fires?"

Reducing wildfire risks to homes and communities is the primary goal of Firewise, a program of the National Fire Protection Association. The program "teaches people how to adapt to living with wildfire and encourages neighbors to work together and take action now to prevent losses." There are three main topics that landowners can address to reduce wildfire risks on their property. These include 1) creating a defensible space around your home, 2) using fire resistant construction materials, and 3) ensuring emergency responders have adequate access to your property. Some of these



suggestions can be expensive to undertake (e.g., replacing siding, roofing material); however, there are steps that most everyone could take to create a defensible space around their home. Examples include: keeping firewood stacked at least 30 feet from the home, remove pine needles from roof gutters and valleys, use non-combustible mulch in flower beds, and removing dead vegetation near the home.

Thinning overstocked pine trees can also reduce the wildfire risk around homes; however, the costs may be prohibitive for many residents. Fortunately there are cost-share programs available. SD Wildland Fire's Hazardous Fuels Mitigation Cost-



FIREWISE USA®
RESIDENTS REDUCING WILDFIRE RISKS

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Drought Study continued

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The Buffalo Gap National Grassland accounts for “some of the most intact grasslands in the world” explains Ott. It offers recreational opportunities and critical forage for livestock and is home to diverse plant and animal species that are unique to the Great Plains region of North America.

The mixed grass prairies like those of the Buffalo Gap support some of the largest cattle production in the country. These prairies and their forage productivity are shaped by a highly variable climate, fire, and grazing. Understanding their effects on grasslands is critical for managers as they make future-driven decisions.

The timing and intensity of drought influences the productivity of grasses and other plants within this region of the world, but the exact patterns of these influences are not fully understood, especially within mixed grass prairies.

The experiment focuses on the different responses of cool-season grasses and warm-season grasses, which fill different roles within the Great Plains. Although all grasses are capable of growth throughout the growing season from March through October, cool-season grasses tend to grow more during the cooler periods of the season (spring and fall) while warm-season grasses tend to grow more during the warmer periods (summer and early fall).

Depending on the timing of a drought, these two groups of grasses may be affected differently, so much so that the overall forage production during and after drought will depend on which types of grasses are in a pasture.

At the beginning of the 2024 growing season, the research team set up 46 rainout shelters on 10-foot by 14-foot experimental plots at two sites on the Buffalo Gap National Grassland. The team then moved the shelters to other plots during the middle of the growing season. Each of these shelters functions as a partial roof that keeps half of all rainfall off the sheltered plots.

The team is also simulating grazing and trampling by livestock in the experimental plots to model the effects of two potential grazing strategies during and after a drought. To



Above photo: rainout shelter designed to mimic drought conditions by capturing a portion of rainfall received at the site. Lower photo: researchers Amy Symstad, USGS (left), and Jacqueline Ott, USFS (right), constructing rain capture system designed to mimic drought conditions. Photos by Erika Reiter, USDA.

do this, Ott and her team first use lawnmowers to remove forage, then guide horses across the experimental plots to re-create the effects of cattle hooves on the plants and soil surface.

Throughout the growing season, the team has returned to the field to measure the response of the grasses and other plants to the simulated drought and grazing scenarios. The research team has been measuring plant community composition, forage productivity, belowground bud production, soil moisture, and stages of grass development.

Ott is looking closely at the impacts of partial-season and season-long droughts on the grasses using indicators like delays in plant development, the number of buds produced (buds are the primary source of grass regrowth following drought), and changes in stem recruitment. Re-

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search identifying and evaluating how grasslands will respond to major ecosystem drivers is critical for managing these landscapes.

“Our job as researchers is to provide the best available science for both public and private land managers,” says Ott. “Land managers often have to make difficult deci-

Cows near experimental site. Photo by Erika Reiter, USDA.



sions on whether to maintain their herd size during drought conditions. Through this research, we can provide managers additional confidence in how their grasslands will recover forage productivity potential following drought.”

The study will be ongoing for the next few years. In addition to the field study, greenhouse studies will be led by Ocheltree to examine physiological responses of dominant grass species to drought.

To learn more about this research, view the video below. In the video, which was filmed in March of 2024, Ott and Symstad talk about what inspired this collaboration, the design of the field experiment, and how the research will help managers navigate drought conditions. Little did they know that the 2024 growing season would provide an even greater variety of drought treatments than they had planned!

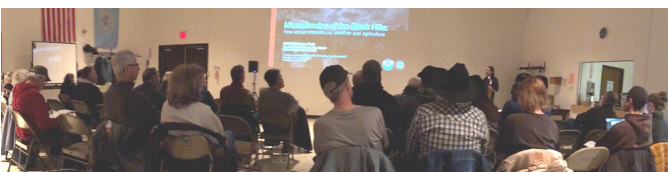


Burning Beetle Learning Event

The Conservation District helped to celebrate the 12th Annual Burning Beetle in January by co-hosting a Learning Event in Custer. Titled “Living in Community in Our Forested Environment”, it was an educational opportunity for both new and long-time residents of the Black Hills area to learn more about forest health, tree pests and disease, local weather patterns, wildfire, and reducing risks to home and property. Also co-sponsoring the event was the Custer Area Arts Council.

Jared Hohn, Fire Management Staff Officer with the USFS Black Hills National Forest, provided a review of the 2024 fire season, which was relatively mild considering the lack of moisture last year. Lane Ostenson, Assistant Fire Management Officer with SD Wildland Fire shared information

Attendees at the 2025 Burning Beetle Learning Event in Custer.



and videos on how wildfires can burn down homes, not by flame contact, but by burning embers. Lane provided suggestions landowners could use to reduce the risk of wildfire on their properties. He also provided information on his agency's cost-share program for hazardous fuels removal.

Keith Sherburn, Meteorologist with NOAA National Weather Service, gave a presentation on “Microclimates of the Black Hills: How terrain impacts our weather and agricul-

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It is the mission of the Custer County Conservation District to promote conservation of soil, water, and natural resources for residents and visitors now and in the future.

Firewise continued

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Share Program offers 80 percent cost-share to qualified homeowners to thin overstocked pines around your home. Certain conditions apply. The Conservation District also routinely offers 50 percent cost-share for non-commercial thinning projects. Contact the office for additional details.

To help spread the word about Firewise, Custer County Conservation District is working with SD Wildland Fire to engage the 60+ road districts in the county about becoming designated as Firewise Communities. To achieve this designation, communities voluntarily work together to reduce wildfire risks in their area by meeting certain criteria, which must be maintained annually.

For more information about Firewise, visit www.firewise.org or www.wildlandfire.sd.gov.

SD Wildland Fire also has a great publication on reducing wildfire risks titled “Living with Fire: a Black Hills Homeowner Guide” (pictured below). It is available for free on their website (https://wildlandfire.sd.gov/docs/LivingWithFire_2017%20Final-Optimized.pdf). Hard copies are also available in the Conservation District’s office.



Winter Desiccation Injury in Conifers by Dr. John Ball, SDSU Ext. / SD-DANR

Winter desiccation injury in conifers The pictures are coming in several times a day now. The trees are small evergreens – 4 to 6 feet tall – that have red to brown needles that are rapidly being shed.

This is winter desiccation injury. The rapid switch to hot weather caused the dry needles to turn color and drop very quickly. While people might think they watered enough last fall, many did not. The trees are showing symptoms now.

Many of the trees are beyond hope. Watering conifers will not cause new needles to suddenly appear. If the trees are just showing some discoloration, watering may restore its health but still expect some needle loss.

John Ball is a SDSU Extension Forestry Specialist and SD-DANR Forest Health Specialist. Article taken from the May 7, 2025 Tree Pest Alert.



Burning Beetle Event continued

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ture.” Keith highlighted common differences in microclimate and weather patterns in the Black Hills due to elevation differences and the unique effects of the Black Hills topography and its location on the continent. One example he gave was the world record temperature change observed in Spearfish in January, 1943. A change of 49 degrees was recorded in just 2 minutes. This rapid fluctuation was due to a temperature inversion, a cold air mass, and strong chinook winds.

Kurt Allen, Forest Health Specialist with US Forest Service, Rapid City, spoke about forest pests in the Hills. He focused primarily on mountain pine beetles and *Ips* pine engraver beetles. He reviewed symptoms that trees display when attacked and steps that can be taken to reduce the risk of attacks. He also touched on the recent increase in tree mortalities in the northern Black Hills due to mountain pine beetle infestations. Something that State and Federal officials are monitoring.



Rain Barrels for Sale

The Conservation District has a handful of 55 gallon rain barrels available for sale. They are \$85 each. Supplies are short so let us know if you would like to purchase one.

Newsletter Mailing List

We are always interested in expanding our audience. Let us know if you would like to be added to our newsletter distribution list. Just give us a call @ 605 -673-5680 or send an email to custercd@sdconservation.net.



Calendar of Events

May 17—Bird Bash at Bear Butte, Bear Butte State Park, SD. Contact Great Plains Audubon (greatplains.audubon.org/events/bird-bash-bear-butte) for more info.

May 23—Pasture Walk, Fall River County, SD. Contact Fall River Weed & Pest (605-745-5047) for more info.

May 30-31—Birds. At Home on the Range Annual Bird Tour, Chamberlain, SD, hosted by the SD Grassland Coalition. <https://sdgrass.org/events/#>.

June 2-5—Young Adult Rancher Management Workshop in Faith, SD, hosted by the SD Grassland Coalition. <https://sdgrass.org/events/#>.

June 10-11—41th Annual Rangeland Days and 20th Annual Soil Days, Belle Fourche, SD. Contact Kaylee Wheeler (605-842-1267) or Emily Rohrer (605-570-2180) for additional information.

June 12—Custer Conservation District Board meeting, Custer Co. Courthouse, Custer, SD.

June 17-19—Grazing School in Wall, SD, by the SD Grassland Coalition. For more information, visit <https://sdgrass.org/grazing-school/>.

June 25-26—West River Soil Health School by the SD Soil Health Coalition, Caputa, SD. For more information, visit www.sdsoilhealthcoalition.org/.

July 10—Custer Conservation District Board meeting, Custer Co. Courthouse, Custer, SD.

August—no Board meeting

September 9-11—Grazing School in Chamberlain, SD, by the SD Grassland Coalition. For more information, visit <https://sdgrass.org/grazing-school/>.

September 11—Custer Conservation District Board meeting, Custer Co. Courthouse, Custer, SD.

October 9—Custer Conservation District Board meeting, Custer Co. Courthouse, Custer, SD.

November 13—Custer Conservation District Board meeting, Custer Co. Courthouse, Custer, SD.



Custer County Conservation District
25363 US Highway 385
Custer, SD 57730
Phone: 605-673-5680
Email: CusterCD@sdconservation.net
www.custercountysd.com/conservation-district/

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Newsletter of the Custer County Conservation District

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Oonagh Wood - Treasurer
Tamarah Caster - Supervisor
Greg Neugebauer - Supervisor
Advisors: Stuart Adrian and Gladwin Paulsen
Mike Baldwin - District Manager
Mike Linde - County Commission Liaison

NRCS Staff

Paige Uher - District Conservationist, Rapid City
Brad Humbracht - District Conservationist, Hot Springs

Partners / Cooperators

SD Dept. of Agriculture and Natural Resources
SD Game, Fish & Parks
SD Wildland Fire
National Wild Turkey Federation
USFS, Buffalo Gap National Grassland
USFS, Black Hills National Forest



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