



Custer County Conservation District was established in 1940.

### Special points of interest:

- Conservation Video
- Soil Health & Sustainability Landowner Meeting
- Arbor Day

### Inside this issue:

Scholarship recipients 3

Soil Health Workshop: 3  
Save the date!

Creative writing contestant honored 3

Pine looper update 4

NRCS article: Soil forming factors 5

Arbor Day celebrations 5

Forestry workshop 6

Upcoming events 7

# CUSTER CONSERVATION DISTRICT NEWSLETTER



## New Video Highlights District's Resilient Forest Projects

A newly released video, "Forest Thinning For a Resilient Future", highlights the forest thinning program of the Custer County Conservation District. The video showcases the collaborative efforts of local stakeholders and partners to improve forest resiliency, thin-

ning, and fuels treatment in the region.

The program is funded through cost-share grants awarded by the South Dakota Conservation Commission and is one of South Da-

*(Continued on page 2)*

## Cost-share Thinning Grant Available

Once again the Custer Conservation District has cost-share funding available for landowners interested in improving forest health. Funds can be used for non-commercial tree thinning, brush management, and slash removal. The project's goals are to improve forest conditions and

*(Continued on page 3)*



Recently thinned forest in Custer County (above). Landowners participated in the Conservation District's cost-share program.



# Custer Conservation District Newsletter

Page 2

## Video: Resilient Forest Projects

(Continued from page 1)

kota's Conservation Implementation Strategy (CIS) projects funded by the USDA-Natural Resources Conservation Service. The program has been successful in working with landowners to improve the resiliency of their forests and protect their property from wildfires and insects. Currently, the program has completed projects on approximately 500 acres of private land with 24 landowners through the Conservation Commission grants, and an additional 100 acres have been funded by the CIS grant in the last two years. The District partners with the USDA-Forest Service, the USDA-Natural Resources Conservation Service, the South Dakota Division of Wildland Fire, and the South Dakota Division of Resource Conservation and Forestry to make their practices more

**Dave Thom**, Chair of the District's Board of Supervisors (below) speaks on the resilient forest projects and collaboration with Federal, State, and Local agencies.

A direct link to the video can be accessed using the QR code (upper right). Simply scan the QR code with your smartphone's camera and follow the link that appears on your screen.



effective across larger landscapes.

The Custer Conservation District encourages private landowners to manage their land and do thinning on their land adjacent to national forest land to reduce the incidence of running crown fires, which are the most destructive when it comes to fire damage to private property.

To learn more about the forest thinning program and the district's efforts to improve forest resiliency, please visit the following URL to view the video [[www.youtube.com/watch?v=oChOMzz6vww](https://www.youtube.com/watch?v=oChOMzz6vww)] or scan the QR code (pictured above) with your phone and follow the link.



Remains of pine trees (above) that fell victim to the Jasper Fire in 2000. More than 83,000 acres were burned during the fire. Video participants (left) included (pictured left to right): Justin Boerboom (USDA-Natural Resources Conservation Service), Penny Svenkeson (landowner), Faryn Klebe (National Wild Turkey Federation), Mike Baldwin (Custer Conservation District), Blaine Brakke (SD Association of Conservation Districts), and Mike Jarding (landowner). Not pictured: Dave Thom (Custer Conservation District) and Patricia Weyrich (SD Dept. Agriculture and Natural Resources).





## 2023 Scholarship Recipients

The Conservation District would like to congratulate the recipients of our 2023 scholarship. Weston Woodward (left), an active 4-H and rodeo club member, and Remington Miklos (right), a State finalist for the Resource Conservation Speech Contest, will each receive a \$1,000 scholarship to further their education after high school. Congratulations and best of luck to you both!



## Soil Health & Sustainability Landowner Meeting in June

Save the date! On June 16, the Custer Conservation District is teaming up with the Pennington County Conservation District and the USDA-Natural Resources Conservation Service to host a soil health workshop in Rapid City. Topics to be covered include principles of soil health; ranching & soil health; soil testing, nutrient applications & fertilizer recommendations; NRCS assistance/programs; rainfall simulator; and there will be a farm tour. Lunch is provided. The morning session will be held at the Walt Taylor Building at the Central State Fairgrounds, 601 Centre St. in Rapid City. The afternoon session will be located at the Freeland Farm in Caputa. Registration is required. Please contact Mike @ 673-5680 to register. See the flyer on our webpage for additional information!

June 16, 2023!



## Cost-share Grant

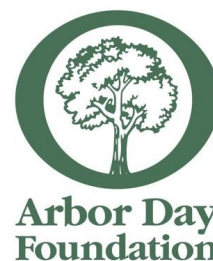
(Continued from page 1)

wildlife habitat while also reducing wildfire hazards. Overstocked forests are vulnerable to insect outbreaks and wildfires.

Qualified applicants are eligible to receive up to \$225/acre for thinning and up to \$100/acre for slash disposal. Payments will be made after work is completed and certified by a Staff Forester from the SD Department of Agriculture and Natural Resources. Applications are available at our website ([custercountysd.com/conservation-district/](http://custercountysd.com/conservation-district/)) or in the office. Call 605-673-5680 for additional information.

## Local Student is Recognized in State-wide Arbor Day Creative Writing Contest

Millie Paulton, a student at the Elk Mountain School in Custer County, received honorable mention for her entry in the 2023 South Dakota Arbor Day Creative Writing Contest. Sponsored by South Dakota's conservation districts and the South Dakota Department of Agriculture and Natural Resources-Division of Resource Conservation & Forestry, the contest provides fifth and sixth grade students the opportunity to write about the importance of Arbor Day and tree planting in South Dakota.



Kadlin Rai Humbracht of Hot Springs, Adelynn Ihnen of Hitchcock,

(Continued on page 7)



## Summer Pest: Pine Loopers

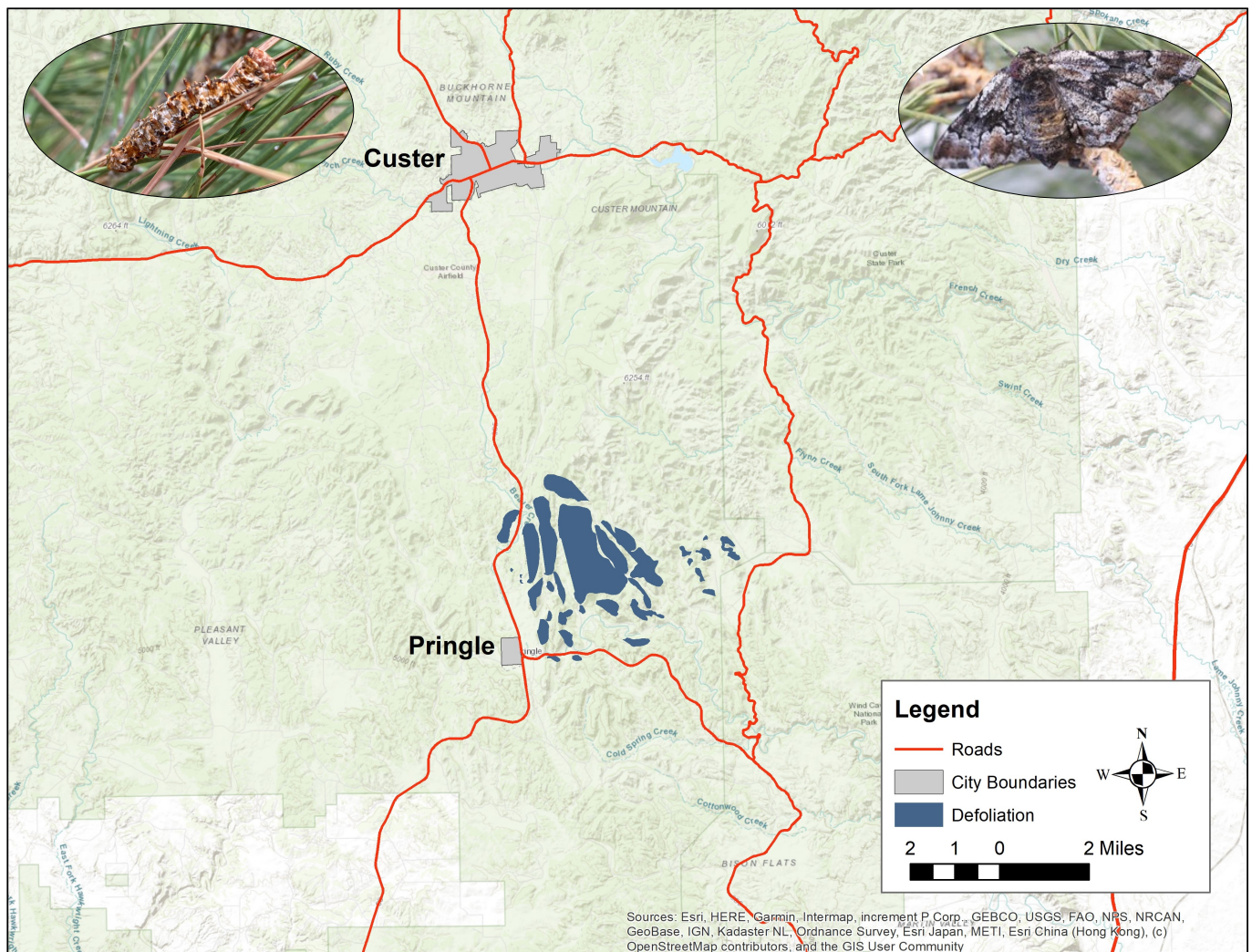
With summer approaching, many will be keeping a watchful eye on the ponderosa pines near Pringle. Last summer's outbreak of the pine looper (*Phaeoura mexicanaria*) caused significant defoliation of the pine trees and raised concerns of a large die-off. The larvae (caterpillars) of the looper feed exclusively on pine needles and were responsible for defoliating a large area east and northeast of Pringle last summer (see figure below).

Pine loopers are native to the Black Hills, but

(Continued on page 6)



A stand of ponderosa pine (above) that experienced heavy defoliation from the pine looper caterpillars last summer. The estimated extent of defoliation during last summer's outbreak was delineated by the U.S. Forest Service (below). Area was mapped based on aerial flight observations. Image of larval pine looper (inset left) and adult moth (inset right). Adult photo by USDA Forest Service.





## Five Soil Forming Factors by Rachel Crowther, NRCS Resource Soil Scientist

As a soil scientist, one of my favorite things to talk about are the five soil forming factors. Every soil has a back-story, and these different factors give soil profiles their unique characteristics and help us get to know our soils a little bit better. The five soil forming factors are climate, organisms, relief, parent material, and time. With an understanding of these factors, I encourage you to see your soils differently next time you are out in the field and reach out to your local soil scientist if you have any questions!

**Climate:** Average annual temperature and rainfall is different across the country. Knowing this, we wouldn't expect a soil from a desert region to be the same as a soil from a tropical region. In a hot and dry desert environment there is sparse vegetation with limited organic matter. The lack of rainfall inhibits chemical weathering which leads to coarser textured soils. On the other hand, in a warm

and wet tropical environment with high rainfall the chemical processes in the soils are sped up which changes the textures entirely. Climate is our biggest factor in soils because it's not only a factor itself, but it influences all the other factors greatly.

**Organisms:** This includes microorganisms, vegetation, insects, animals, and humans. This factor is important because organisms add organic matter to the soil, aid in decomposition, and assist with weathering and nutrient cycling. Burrowing animals will create passageways into the soil to help aerate the soil and allow water and organic matter to infiltrate the profile. A good example of this is earthworms. Earthworms influence soil structure while creating macropores and mixing organic matter into the soil horizons.

**Relief:** Soils will differ based on where they fall in the landscape. The relief

influences water movement and plant communities. Deeper soils are formed at the bottom of hills due to gravity and water movement moving soil particles down the slope while shallow soils are at the top of the hill. Different plants will thrive in soils that are deep versus soils that are shal-

(Continued on page 6)



## Arbor Day Celebrations

Custer City and the Conservation District teamed up to wrap tree seedlings as part of Arbor Day celebrations. The City held an event at the VFW park where they planted four trees and distributed seedlings to the young helpers. The District gave seedlings to 1st graders in Custer and Hermosa and planted a tree on both school grounds. Seedlings were also provided to students at the Elk Mountain School. The District is thankful to Josh Larson, Forester with SD DANR, for his Arbor Day presentations and his tree planting skills.



Tree wrapping crew of 2023 (pictured left), from left to right were Weston Woodward, Paul Nettinga, Mike Baldwin, Peg Ryan, Nina Nielsen, Tamarah Caster, and Dave Thom (not pictured). Attendees at the City of Custer Arbor Day Celebration at the VFW Park (pictured above). Students (below) gathering for the Arbor Day presentation and tree planting at the Custer Elementary School.







*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.*

## Pine Loopers

(Continued from page 4)

are rarely observed in appreciable numbers. The caterpillars pupated in late summer and spent the winter months in the forest floor waiting for warmer temperatures. From the pupae stage, adult moths will emerge in late May or June.

This summer, researchers will be monitoring adult populations with the hopes that the outbreak does not continue for a second year. SDSU Forest Health Specialist Dr. John Ball and his students will set and monitor traps within and around the affected area.

In reference to tree health, Dr. Ball indicated that the majority of the trees seem to have tolerated the defoliation. However, the trees are now more vulnerable to attack from the Ips pine engraver beetle. A wet spring/summer will go a long way towards protecting the trees from the beetle.

## Soil Forming Factors

(Continued from page 5)

low. Slope positioning is important as well, as a southern exposure is warm and dry while a northern exposure is cool and moist.

**Parent Material:** Soils develop from parent material, which could be bedrock that has stayed in place or other

material deposited by wind, water, or ice. Just like we carry traits from our parents, soils will carry similar traits to their own parent material. For example, sandier soils are derived from sandstone material while silty soils are derived from siltstone material.

**Time:** Soils take quite a long

time to form. As time passes, weathering continues to develop soil horizons. Older, more mature soils will have well developed horizons while younger soils have horizons harder to determine due to lack of development. Keep in mind, it takes about 500 years to create 1 inch of topsoil.

## District Participates in Forestry Workshop

Custer County Conservation District was a cosponsor for a whole tree utilization workshop held May 2 near Pringle. The workshop was designed to educate landowners and professionals on whole tree utilization methods in the Black Hills. Dave Thom and Mike Baldwin from the Conservation District participated.

Goals of whole tree management include reduce risk of severe wildfire, improve forage production, improve/maintain wildlife habitat, reduce risk of mountain pine beetle infestation, produce revenue, and improve forest health.



Some of the participants in the whole tree utilization workshop near Pringle on May 2.

Other sponsors of the event included the Dakotas Society of American Foresters, SD Family Forests Association, SD Dept. of Agriculture and Nat. Resources, Black Hills Forestry, Pete Lien and Sons, and Baker Timber Products.



## Arbor Day Creative Writing Contest

(Continued from page 3)

and Kenzley Souhrada of Tyndall were the winning authors selected from the 709 entries. Others receiving honorable mention were Blake Hoiness and Kimber Cordell. Below is Millie's entry:

*An Arbor Day Poem by Millie Paulton*

*Trees are important, the plant I like lots,  
You can plant them in big or small pots!  
Trees provide shade, shelter, and food,  
They always seem to improve my mood.  
On our South Dakota ranch, we have Ponderosa pine,  
Rocky Mountain juniper, one lonely cottonwood, but no  
other kind.  
Our cattle and the wildlife need trees a whole bunch,  
They help provide shelter, pine cones for bedding, they go  
crunch, crunch!  
It's important to plant trees for animals, people and the  
earth,  
Let's go plant some trees in the dirt!  
So give a tree a chance to grow.  
The first thing it will do when you plant it and let it go,  
He'll start out small and give it his all,  
Water him deeply and stake him so he can't fall!  
Your tree will help the soil from erosion,  
So why don't you plant a tree if you have the notion?  
The best time to plant a tree was hundred years ago.  
The next best time is today, so...  
My friend, it's clear, plant a tree,  
It will help you and it will help me!*



## Calendar of Events

- May 30—Birds, Bees, and Bison Workshop, 777 Bison Ranch, Hermosa, SD.
- June 8—Custer Conservation District Board meeting.
- June 14-15—Rangeland and Soil Days Murdo, SD. Contact Deanna Kunkel @ 605-882-4989 ext. 3.
- June 16—Soil Health & Sustainability Landowner meeting, Rapid City, SD. Contact Mike at 605-673-5680 to register.
- June 20-22—Grazing School, Wall, SD. Contact 605-280-0127 or visit SDGrass.org for more information.
- July 13—Custer Conservation District Board meeting.
- August—No board meeting
- Sept. 12-14—Grazing School, Chamberlain, SD. Contact 605-280-0127 or visit SDGrass.org for more information.

## Share Your Email with Us!

Help us save printing and mailing costs by sharing your email address with us. Call the office (673-5680) or send an email to [custercd@sdconservation.net](mailto:custercd@sdconservation.net).

Also, we are always interested in expanding our audience. Please contact us if we missed you and would like to be included on future newsletter mailings.



| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|-----|-----|-----|-----|-----|-----|-----|
|     |     |     |     |     | 1   | 2   |
| 3   | 4   | 5   | 6   | 7   | 8   | 9   |
| 10  | 11  | 12  | 13  | 14  | 15  | 16  |
| 17  | 18  | 19  | 20  | 21  | 22  | 23  |
| 24  | 25  | 26  | 27  | 28  | 29  | 30  |





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

Type address here or use Mail Merge  
to automatically address this  
publication to multiple recipients.

## Newsletter of the Custer County Conservation District

### District Board

Dave Thom - Chair  
Paul Nettinga - Vice-Chair  
Oonagh Wood - Treasurer  
Tamarah Caster - Supervisor  
Greg Neugebauer - Supervisor  
Advisors: Stuart Adrian, Stephenie Rittberger, and  
Gladwin Paulsen  
Mike Baldwin - District Manager  
Mike Linde - County Commission Liaison

### NRCS Staff

Joel Milos - District Conservationist  
Justin Boerboom - Resource Unit Conservationist

### Partners

Patricia Weyrich - Acting Forester, SD DANR-RCF  
Vacant - National Wild Turkey Federation

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



Established in 1940