



Conservation CONNECTION

Rosebud and Big Horn Conservation Districts

ROSEBUD CONSERVATION DISTRICT: 270 S. Prospect • P.O. Box 1200 • Forsyth, MT 59327

BIG HORN CONSERVATION DISTRICT: 724 West 3rd Street • Hardin, MT 59034

ROSEBUD CD: Meetings: 1st Thursday • 406-346-7333 ext. 101 • Fax/Phone: 406-346-7479 | BIG HORN CD: Meetings: 1st Thursday • 406-665-3442

NRCS FORSYTH FIELD OFFICE: 406-346-7333 | HARDIN FIELD OFFICE: 406-665-3442 | LAME DEER FIELD OFFICE: 406-477-6494 | CROW AGENCY FIELD OFFICE: 406-638-9102

Meet our new District Conservationist

This is Danny Pratt, I'm the new District Conservationist located in Forsyth. I used to be the District Conservationist in Chinook. I managed NRCS's work in Blaine County, supervised the local employees and supported the conservation district and NRCS's partners. You may have heard of "Helping People Help the Land" – I love the saying and I'm proud to embody it as an employee of the NRCS. By focusing on helping people, I have been able to help many producers understand their natural resources and implement sound management strategies. The agriculture of Blaine county is diverse – so this has included implementing systems on organic wheat fields, Bureau of Rec irrigation projects and native rangelands valuable as duck nesting habitat. Of course, we also spend plenty of time assisting with cover crops, forage plantings and pipelines that you might find in most counties.



You may be thinking that I have spent a lot of time talking about Chinook and where do you all fit in? I'm getting to it! I have built strong relationships everywhere I have worked, and it is why I love "Helping People Help the Land". I feel like I have to love it, not only because it's my "job", but because you all have helped me. I was born in Shelby, MT. My Dad was the district conservationist there and my Mom was a range conservationist in Cut Bank. A local farmer working with my Dad took me out on a round in the combine - it's one of my first memories harvesting wheat. While I was in high school in Miles City, my Dad brought me to one of your conservation district annual meetings to listen to a local rancher talk about his grazing practices. Conservation Districts, FFA, Montana Range Days, and other ag organizations helped pay for my education. Conservation Districts got me connected to the community in each of the 5 Montana towns I have worked in with NRCS. I am so thankful for the opportunity to give back to an industry and its people that have given me so much support, wisdom, and encouragement over the years. I hope I can do my part with you all in Forsyth. So, while I'm excited to be apart of your lives in Forsyth, I'm also making sure I'm taking all the good from my past and bringing it with me – and I look forward to adding more to my collection.

A few extra tidbits if you're interested. My wife, Sarah, is a home maker, mother, former conservation district supervisor, bible study leader and president of the Chinook Chamber of Commerce. Our son, Matthias, turned 4 in February. He attends some pre-school and likes to help with cooking, mechanics, wiring, carpentry and snow shoveling, but he keeps the cleaning to a minimum. Our daughter, Elsa, is 1. She keeps tabs on her brother and works hard to keep everyone smiling. Sarah and I are excited to move our family to you and be a part of your community.



Crop Production Basics Workshop Held

Seanna Torske
Supervisory District Conservationist
Crow Agency, Hardin, and Billings Work Unit

The Crop Production Basics Workshop was held on a chilly Wednesday, February 27th, 2019, at the Little Big Horn College in Crow Agency, MT. We had six participants who braved the weather and the roads to learn about various agronomy topics including: soil testing, managing residue, tillage implements, crops grown in Big Horn County, and many other topics. Lunch was provided through the Little Big Horn College Equity Program. Speakers included: Mark Henning, USDA-NRCS Area Agronomist; Evan Van Order, USDA-NRCS Soil Conservationist; and Seanna Torske, USDA-NRCS Supervisory District Conservationist.



Mark Henning, USDA-NRCS Miles City Area Agronomist, speaks to workshop participants about the nitrogen cycle.



CLEAN. DRAIN. DRY.

Forage and Biomass Planting

Are your cropland fields not as productive as they used to be? Are you noticing wind or water erosion removing precious soil from your fields? Are you looking for another source of forage for your livestock? Forage and Biomass Planting might be the solution! Forage and Biomass Planting is a term used for when an adaptable herbaceous plant species (like grass or forbs) are planted for pasture, hay, or biomass production. In other words, instead of planting annual crops in your cropland each year, you could consider planting that ground back to a perennial grass and forb species mix that keeps growing year after year.

Perennial grasses and forbs can greatly reduce soil erosion. This can be done by binding the soil particles down with their diverse root systems, and by reducing the velocity of precipitation after hitting the plant's above ground biomass. This can reduce overland water flow which can carry sediment into neighboring surface water. The grasses can also help trap moisture in the field during the winter by acting as a snow trap. This soil moisture will help with the germination of seedlings in early spring and promote healthy stand establishment. A bonus to planting cropland to a perennial species mix, is additional forage for livestock and wildlife throughout the grazing season. Depending on the species and the accessibility, the fields can be grazed later into the season or harvested for hay. These options can reduce the expense of extra feed during the winter months. Whether the plants are grazed or harvested for hay, the root systems and unharvested biomass are keeping a living root in the soil. This is an important aspect of soil health.

When planting species in these seed mixes, one should consider a few things to promote a successful plant stand establishment. Select a forage species by the intended use. Some species are going to be better utilized or more palatable at different times of the year, and some are better for hay production versus late season grazing. If the field is irrigated or dryland is another important factor to consider when choosing a seed mix. The annual precipitation for an area, growing season length, and soil attributes like; pH, water holding capacity, salinity, depth, or flooding potential are important factors to consider when choosing which species to include in a seed mix.

Planting seeds to the proper depth is important. Small grass, forbs, and legumes seeds should be planted no deeper than ½-inch, and large grass seeds should be no deeper than ¾-inch. The seedbed should be prepared to be a firm, weed-free medium that reduces seedling competition from weedy species. Using no-till planting methods reduces erosion when compared to conventional tillage methods. Some species establish better when planted in the spring or the fall during seed dormancy. Spring seeding should be done by May 15th, and dormant fall seeding can be done after October 15th or when soil temperatures two inches below the surface remains at 40° F. or less for at least 10 days. If broadcast seeding, the seeding rate should be doubled.

Hopefully this article helps with an understanding of forage and biomass plantings. Information for this article and for this practice can be found on the USDA-NRCS website in the electronic Field Office Technical Guide (eFOTG), Section 4: https://efotg.sc.egov.usda.gov/efotg_locator.aspx , and in Montana Plant Materials Technical Note MT-46: https://www.nrcs.usda.gov/wps/portal/nrcs/mt/plantsanimals/nrcs144p2_057725/ . You can also contact your local USDA-NRCS Field Office for more information on forage and biomass plantings. You can find your local Field Office here: <https://www.nrcs.usda.gov/wps/portal/nrcs/mt/contact/local/>.

By: Randell Hopkins, Soil Conservationist, Hardin NRCS Field Office

Soil Microscope with Hardin Kindergarten Readiness Center

On Wednesday, March 13th, Evan Van Order and Randell Hopkins, Soil Conservationists with the Natural Resources Conservation Service, went to the Kindergarten Readiness Center in Hardin and presented on Soil Health principles. Some of the topics covered with the kids included parts of plants, living organisms in the soil, and how soil structure (microorganism's home) is influenced by disturbance. Pea plant seedlings were used to explain how the plant's leaves, seeds, and roots work together to make a healthy plant and have an influence on soil organisms. They also got to try eating the pea plant microgreens. The kids enjoyed looking at microorganisms moving around in the soil with the help of a microscope. The microscope image was projected to the wall, so all the kids could see the life in the soil. They found countless bacteria and protozoa moving around in the soil. Magnified images of soil microorganisms were shown to the kids after they looked at the microscope to show examples of some of the other organisms that can be found in healthy soil. They drew great pictures of some of the microorganisms they saw! Dried soil samples were also shown from a tilled/disturbed soil and an undisturbed soil. Both soils were submerged in water and the disturbed soil broke apart and made the water murky quickly and the undisturbed soil stayed intact due to healthy soil microorganism activity binding the soil structure together. The kids also enjoyed a coloring activity book that highlighted the life in healthy soil.



Randell Hopkins showing soil microorganism images to the class. Photo Credit: Evan Van Order



Students drawing pictures of soil microorganisms. Photo Credit: Evan Van Order

Big Horn Conservation District bids farewell to administrator

Gloria Menke



Thank you for everything over the years!

You will be greatly missed!

~ Wildlife Profile ~

Burrowing Owl (*Athene cunicularia*)...

- Are one of the smallest species of owl, averaging only 9.5 inches tall.
- Are considered a Species of Concern in Montana.
- Diet consists of mostly insects, although snakes, amphibians, birds, and small mammals are also eaten.
- Habitats are generally found in open grasslands, in abandoned burrows, created by other animals, on the edge of a prairie dog town.
- Make a hissing noise that mimics a rattlesnake's tail shake when threatened.
- Are most active during the day, unlike other owls.
- If you are interested in having a free presentation for your group or class, about wildlife, conservation, or habitat please contact Heather Nenninger at 406-346-7333.



**Read upcoming editions of the Conservation Connection for more intriguing facts about Montana's native wildlife, presented by Heather Nenninger, Sage Grouse Initiative (SGI) Partner Biologist!

Rosebud Conservation District Reserved Water

Montana's water reservation law provides an opportunity to legally allocate water for future consumptive uses as well as to maintain in-stream flows to protect water rights, aquatic life, and water quality.

The conservation district water reservations are for agricultural irrigation and in some districts for stock watering. Districts rely on land users within the basin to develop the water resource and put the reserved water to use. Districts encourage land users and resource managers to apply for reserved water for new or supplemental irrigation projects.

A reservation is subject to protection under the Montana Water Use Act and is an appropriate water right protected by law. In the case of the conservation district, the right is held by the district on behalf of the individual users. Individuals will apply to the district once they have plans to put the water to use. A water user receives an authorization or permit from the district for the right to use a portion of the district's reserved water. Legally, this is the same as when an individual obtains a permit from the Department of Natural Resources & Conservation (DNRC) to use water.



of December 15, 1978 (4:18 P.M.)

The Rosebud Conservation District, as a water reservation holder, is responsible for apportioning the reservation in an equitable manner. The district is also responsible for administering the use of its reserved water and in accordance with the "Board of Natural Resources Board Order Establishing Water Reservations". Rosebud Conservation District holds a water reservation of 87,003 acre-feet per year with a maximum flow rate of 540.7 cubic feet per second from the main stem of the Yellowstone River which has a priority date

Rosebud Conservation District has
82,880.40 acre-feet and a flow rate of 464.61 cubic feet per second available.

If you are in need of reserved water and would like more information or an application contact
Rosebud Conservation District's Administrator Bobbi Vannattan at 406-346-7333 ext. 8012

visit us at www.rosebudcd.com

"Most things, except agriculture, can wait." ~Jawaharlal Nehru~

"Nature holds the key to our aesthetic, intellectual, cognitive, and even spiritual satisfaction." ~E. O. Wilson~

"Whoever makes two ears of corn, or two blades of grass to grow where only one grew before, deserves better of mankind, and does more essential service to his country than the whole race of politicians put together ."

~Johnathan Swift~

TREE & GARDENING WORKSHOP

FRIDAY, APRIL 12TH
9:00-4:00

ROSEBUD COUNTY
LIBRARY BASEMENT
FORSYTH, MONTANA



Lunch
Provided

Door
Prizes

Tree
Tour

Featured Speakers:

Wayne & Connie Burleson
~Gardening 4 Life~

Chase Anderson & Rachel Leisso
~Montana Heritage Orchard~

Sharon Wetsch
~Master Gardener~

Workshop Focus:

- New methods of creating compost faster
- Improving soil fertility cheaply and naturally
- How to carbon load your soil by copying nature
- How to plant in August and eat it in 3 weeks
- The importance of keeping soil covered all the time
 - Free seeds for give-away
 - Learning about a variety of Apple trees
- Information about the Montana Heritage Orchard
 - Gardening tips and ideas for success
 - Walking tree tour (weather permitting)



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United States Department of Agriculture
Natural Resources Conservation Service



250.00 per camper. Please inquire with your local conservation district for scholarship opportunities.

For registration and camp information visit www.gallatin.macdnet.org
For more information, please call 406-282-4350

Rosebud Conservation District

Cover Crop Cost Share

Rosebud Conservation District is looking for producers who are seeking diversity in no-till cropping systems.

Incentive- \$20 per acre with a max of 20 acres

The purpose of the soil health incentive is to encourage the utilization of cover crops in no-till cropping systems. The proper cover crop can economically control erosion, reduce runoff, increase organic matter, break up crop disease patterns, cycle deep nutrients, and be used for haying and/or grazing. RCD will pay the actual seed and seeding cost up to \$20 an acre up to 20 acres or \$400 per producer in the conservation district boundaries. Responsibilities of the producer are to prepare a weed free seed bed, note all important observations, agree to tours and news article, if applicable, and provide information regarding fertilizer techniques. A requirement of the cost share agreement is that seed mixtures consist of at least three species of seed in the cover crop planting.

**Contact Rosebud Conservation District
at 406.346.7333**

Big Horn Conservation District

Cover Crop Cost Share Available

It's time to think about utilizing a cover crop in no-till cropping systems. In order to encourage producers to learn about the benefits of cover crops, the BHCD initiated a program to pay the actual cover crop seed costs up to:

\$20 per acre with a max of 40 acres

Producer responsibilities to participate in this program are to prepare a weed-free seedbed, use a minimum of three species of seed in the cover crop mix, and agree to tours and newsletter articles, if applicable, concerning the experience.

**Contact Big Horn Conservation District
at 406-665-3442, ext. 112**

When is a 310 permit needed?

A 310 permit is REQUIRED if you are planning ANY project that physically alters or modifies the bed or banks of a stream. The purpose of the permit is to minimize soil erosion and sedimentation, protect and preserve streams and rivers in their natural or existing state, and to prevent damage to the lands and property immediately adjacent to streams and rivers.

The application process is easy, simply pick one up at your local conservation district, upon completion, return the application to the office.. An inspection of the proposed project is necessary, afterwards, the Board of Supervisors determine the fate of the 310 permit. Sometimes additional permits are required and it is the responsibility of the producer to secure all permits before beginning any projects.

Rosebud County

- ◆ Yellowstone River
- ◆ Tongue River
- ◆ Rosebud Creek
- ◆ Reservation Creek
- ◆ Otter Creek
- ◆ Armell's Creek
- ◆ Numerous Other Creeks

Big Horn County

- ◆ Big Horn River
- ◆ Tongue River
- ◆ Little Big Horn River
- ◆ Rosebud Creek
- ◆ Numerous Other Creeks

Treasure County

- ◆ Yellowstone River
- ◆ Big Horn River
- ◆ Sarpy Creek

*All Perennial Streams in Big Horn, Treasure, and Rosebud Counties Require a 310 Permit!
If you are unsure, please contact your local conservation district!*

****Fascinating Facts****

- * The Yellowstone River is the only undammed river in the lower 48 states
- * The river flows for 692 miles
- * Montana, Wyoming, and North Dakota are the lucky states that have the Yellowstone flowing through them
- * The slopes of Yount Peak, in the Absaroka Range of Wyoming, are where the mighty river begins
- * The Yellowstone River hosted a group from the Lewis and Clark Expedition which was led by Lieutenant William Clark
- * The first trading post on the river was established in 1807 by John Colter and Manuel Lisa



Rosebud Conservation District

270 Prospect Forsyth, MT 406-346-7333

~For Sale or Rent~

For Sale:

- *Wildlife Ramp~ \$20.00
- *Gate Latch~ \$20.00
- *Marking Flags (5"x8")~ \$10.00/bundle

For Rent:

- *Track Filler~ \$100.00/day or \$200.00/week
- *No Till Drill~ \$7.00/acre (200 acre maximum)

Books For Sale:

- *Range Plants of Montana~ \$15.00
- *Rosebud County Land Ownership Map Books \$28.00/small or \$40.00/large \$38.00/small aerial view or \$50.00/large aerial view

Treasure County Conservation District

211 Elliot Avenue Hysham, MT 59038 406-342-5510 ext. 102

For Sale:

- *Marking Flags (5"x8")~ \$10.00/bundle
- *Wildlife Ramp~ \$20.00

For Rent:

- *Great Plains Native Grass Drill~ \$7.00/acre (200 acre maximum)

Books For Sale:

- *Treasure County Land Ownership Map Books~ \$16.00/small or \$20.00/large

Big Horn Conservation District

724 W 3rd Street Hardin, MT 59034 406-665-3442

For Sale:

- *Moisture Probe~ \$65.00
- *Wildlife Ramp~ \$25.00
- *Hydrosorce Plant Gel~ \$7.00/pint

For Rent:

- *Tree Planter~ \$.10/tree (\$30.00 min)
- *Fabric Layer~ \$.10/tree (\$30.00 min w/o fabric purchase) or \$.05/tree + fabric cost (w/ fabric purchase)

Visit us at www.rosebudcd.com

~Rosebud Conservation District Tree Sales~

- Tree orders are now being taken and will continue through April 15, 2019
- There is a large variety of trees, shrubs, grasses, and perennials offered
- Delivery will be in late April or early May, weather dependent
- Pricing and ordering information is available at www.rosebudcd.com or the Forsyth USDA Service Center, located at 270 Prospect Street
- Please contact Monica with questions or to place an order at (406) 346-7333 ext. 8023 or monica.boyer@mt.usda.gov



~Upcoming Events~

Tree and Garden Workshop

Rosebud County Library Basement Forsyth, Montana April 12, 2019

For more information: Rosebud Conservation District 406-346-7333 ext. 3 or Treasure County Conservation District 406-342-5510 ext. 102

Livestock Genetic Management and Grazing

Bos Terra, Hobson, Montana May 29-30, 2019

For more information: Teresa Wilhelms 406-566-2311 or teresa.wilhelm@mt.nacdnet.net

State Wide Administrator Training (SWAT)

Arrowpeak Lodge Highwood, Montana June 3-6, 2019

For more information: Dusty Olson 406-557-2740 ext. 100 or garfieldcd@macdnet.org

Montana Association of Conservation District's Spring Board Meetings

State Capital Helena, Montana June 10-13, 2019

For more information: Dan McGowan 406-443-5711 or dmcgowan@macdnet.org

Montana Youth Range Camp

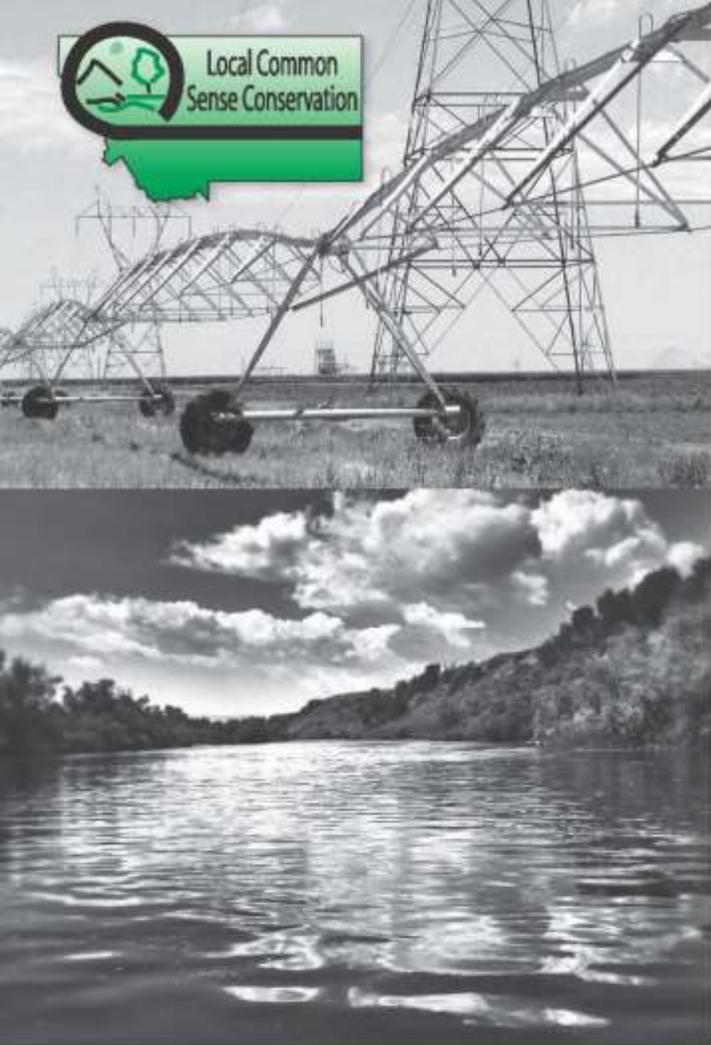
Hyalite Lions Camp Bozeman, Montana June 25-28, 2019

For more information: 406-282-4350 or gallatin.macdnet.org



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