

Quarterly
Newsletter
November
2018



Photo by Erika Peckham



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CAN YOU AFFORD **NOT** TO TREAT INVASIVE ANNUAL GRASSES ON YOUR FARM OR RANCH ?

INVASIVE ANNUAL GRASSES LIKE CHEATGRASS, MEDUSAHEAD AND VENTENATA CAN IMPACT FORAGE PRODUCTION AND CREATE A FIRE PRONE MONOCULTURE OF WEEDS. If left untreated, they can stifle native plant diversity and reduce the health of livestock and your soil. Treating infestations early on can save you money in the long run. Knowing when to treat, and the costs and benefits involved, can help you make informed decisions.

For recommendations and assistance on how to treat invasive annual grasses on your property, contact your local **NATURAL RESOURCES CONSERVATION SERVICE**.

WHAT LEVEL OF INFESTATION DO YOU HAVE?	HOW MUCH FORAGE ARE YOU PRODUCING?		
	500lb/acre	1000 lb/acre	1500 lb/acre
LOW	FINANCIAL GAIN with treatment ✓ 21 ¢ per acre/ YR	FINANCIAL GAIN with treatment ✓ \$2.58 per acre/ YR	FINANCIAL GAIN with treatment ✓ \$4.94 per acre/ YR
MODERATE	FINANCIAL LOSS with treatment ✗ 49 ¢ per acre/ YR	FINANCIAL GAIN with treatment ✓ \$1.42 per acre/ YR	FINANCIAL GAIN with treatment ✓ \$4.23 per acre/ YR
HIGH	FINANCIAL LOSS with treatment ✗ \$5.43 per acre/ YR	FINANCIAL LOSS with treatment ✗ \$4.39 per acre/ YR	FINANCIAL LOSS with treatment ✗ \$3.76 per acre/ YR

BENEFITS OF TREATING INVASIVE ANNUAL GRASSES

- REDUCED EROSION
- BETTER FORAGE PRODUCTION
- HEALTHIER SOILS
- LESS WILDFIRE RISK
- CLEANER SURFACE WATER
- IMPROVED FISH AND WILDLIFE HABITAT
- BETTER WATER INFILTRATION
- IMPROVED LIVESTOCK HEALTH
- PLANT DIVERSITY
- LONGTERM PROFITABILITY

CHALLENGES

1. Treatment Can Be Expensive
2. Periodic Maintenance Costs Required For Treatment
3. Forbs And Other Plant Species Could Potentially Be Impacted
4. Treatment Methods are Under Development
5. Proper Application Time May be Limited
6. Terrain Location Make Proper Application Difficult

Information from "Economics of Annual Grass Control in Eastern Oregon" report produced by NRCS, 2017. Treatment costs, forage response and actual numbers will vary with site conditions. Refer to the website for more details. USDA is an equal opportunity provider, employer and lender.

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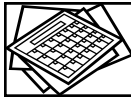
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Shelby Atwood



SCHEDULE OF EVENTS

November 7, 2018	CCCD Board Meeting
November 12, 2018	Veterans Day- office closed
November 14-16, 2018	WACD Convention in Evanston
November 22-23, 2018	Thanksgiving Holiday - CCCD closed
December 7, 2018	Holiday Open House
December 11, 2018	CCCD Board Meeting
December 24-25, 2018	Christmas Holiday - CCCD closed
December 31, 2018	New Year's Holiday - CCCD closed
January 1, 2019	New Year's Day - office closed
January 8, 2019	CCCD Board Meeting
January 15, 2019	Soil Workshop #3 with NRCS
January 21, 2019	WY Equality Day - office closed

Scat and Tracks at the 2018 State Fair

The Wyoming State Fair was held in Douglas, August 15-18.

So, can you tell the difference between dog **tracks** and coyote **tracks**, and do you know bear **scat** is nothing like deer **scat**?

Crystal and Clay were on hand to assist the Wyoming Ag in the Classroom and WACD by providing natural resource education activities for parents and youth attending the Wyoming State Fair.



The 9th Annual



Northern Rockies Tree School

October 11 and 12, Debbie participated in the annual Northern Rockies Tree School in Cody, WY.

Approximately 180 attended this year. Topics included: Soils and Tree Nutrition, Emerald Ash Borer Planning, Establishing Trees, Species Diversity, and Developing Local Tree Programs.

A session on the historic USDA Horticulture Research Station was very informative. "The Station opened in 1929 in Cheyenne," Scott Skogerboe, Plant Propagator and Historian explained "and closed in 1974." The surviving trees and shrubs there today are 89 years old and existed primarily on natural precipitation. They are remarkable to study!

Wyoming Society for Range Management 2018 Annual Meeting Update

By: Clay Wood

The Wyoming Section of the Society for Range Management held its annual meeting in Sheridan on October 9th-11th, 2018. This year's presentation topics revolved around a central theme of cooperative projects that have been successfully implemented to provide rangeland management across both ownership and management boundaries. Presentations were delivered from a wide variety of individuals from the Sheridan Research and Extension Center, Bird Conservancy of the Rockies, Western Landowners Alliance, Wyoming Game and Fish Department, USDA Agriculture Research Service, Sheridan County Weed & Pest, Sheridan NRCS Field Office, and local producers.

The meeting was well attended with nearly 75 participants registering for the meeting. As part of the meeting there were also student competitions, including plant identification, the undergraduate range management exam, and extemporaneous speaking. Competing in these competitions were 14 students from the University of Wyoming, five from Sheridan College, and one from Northwest College. Section awards were presented at the banquet including the Trailboss Award - Ray Gullion, Outstanding Woman of The Range – Karen Clouse, and Outstanding Young Professional – Clay Wood. Despite the cold weather, the meeting concluded with 35 people participating in a field tour highlighting Ventenata and Medusahead (two relatively new invasive grasses to the Sheridan area), control efforts, and the success that have been achieved so far.



National Association of Conservation Districts (NACD) Pacific and Southwest Regional Meeting

Kennewick, WA hosted the NACD region meetings September 17-19. The meetings give conservation district leaders, members and partners a time and place to discuss their most pressing concerns and share their most valuable insights.

Jennifer participated in the discussions concerning legislative issues, conservation programming topics and NACD initiatives. In a time where many groups with very limited knowledge or experience are trying to influence the use of federal lands and money to impact natural resources, it is crucial the CCCD represent Campbell County residents. CCCD is the local knowledge and expertise in natural resources and is that voice.

Jennifer Hinkhouse, CCCD District Manager
Todd Heward, WACD Vice President
Astrid Martinez, NRCS State Conservationist

CCCD Participates in Mallo Camp 2018

Mallo Camp is not your ordinary field trip. It's a tradition, a rite of passage that every 5th grade student in the Campbell County School District anticipates.

For over 30 years, Campbell County fifth-graders have been staying in cabins tucked away in the Black Hills for three days and two nights to experience outdoor environmental education. Daily stations teach about the environment, which include forestry, limnology, animal signs, entomology, botany, geology and water monitoring.

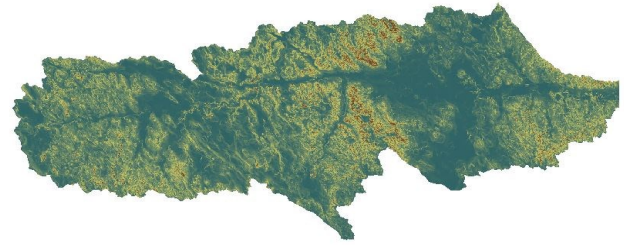
This school year, Crystal Kellebrew, CCCD Education Coordinator provided a water quality monitoring activity over a 3 week period (August 28 through September 14) to a total of 731 students attending the 17 Campbell County Schools.



Wyoming Association of Conservation Districts -Area I Meeting

September 12, 2018, Crook County Natural Resource District hosted the Area I meeting in Moorcroft. Debbie Hepp, Crystal Kellebrew, Clay Wood, Jaime Tarver, Bob Maul, and Brenda Schladweiler attended representing the CCCD. Updates were given by NRCS, and Wyoming Department of Agriculture and legislative issues were discussed.

Donkey Creek Watershed



Cost-Share Program Opportunity

Through Federal and State grants, the Campbell County Conservation District and the Donkey Creek Watershed Steering Committee are offering financial assistance for projects that will benefit water quality.



Funding Overview

Typical projects may include installing fencing/ stock water to minimize access to waterbodies, relocating corrals or animal feeding areas away from surface water, or replacing septic systems to eliminate sewage discharges. The amount of cost share available for each project varies. Projects ranked as high priority may receive up to 70% funding. If you think you would like to apply for cost-share funds through the District's water quality improvement program, you are highly encouraged to see if you are qualified.

Application Information

Applications will continue to be accepted and reviewed based on fund availability. The District staff is available to answer any questions or provide technical assistance regarding potential projects or the application process. Applications are available at the District office or you can download a copy from our website www.cccdwy.net.

Step One: Self Assessment/

Completed by the landowner. You may download one off the CCCD website (cccdwy.net) or call the office and have one mailed to you.

Step Two: Site Visit/Ranking

Completed by CCCD staff along with the landowner to evaluate resource concerns. CCCD will use ranking sheets to determine priority and eligibility

Step Three: Contract/Budget Development

- Grant/ SHPO Authorization (Up to 60 days)
- Permits
- Cost estimates

Step Four: Approval

Contract must be signed by the landowner prior to Watershed Committee and Board approval **AND** must include all documentation required in Step Three.

Step Five: Construction

Construction can begin following an **APPROVED** and **SIGNED** contract and budget. The Board **WILL NOT** make payments on any contract items constructed prior to an approved contract.

Step Six: As Built Payment

CCCD staff conduct site visit to validate construction elements and take pictures. Landowner submits all receipts to CCCD for payment which may take up to 90 days.

AUGUST

- Jennifer and Clay inspected the Timber Stand Improvement project on August 1.
- The staff manned the booth during the Campbell County Fair August 2-5.
- Crystal and Lauren provided the Great Migration and Fundana Bandana activity along with a nature hike for 200, 5-16 year olds attending the Boys and Girls Club on August 3.
- Jennifer traveled to Virginia to attend the Forestry Resource Policy Group meeting August 6-9.
- August 8, Clay and Crystal inspected the Timber Stand Improvement project.
- Jennifer and Crystal inspected the Timber Stand Improvement project on August 13.
- All staff attended the board meeting on August 14.
- Jennifer attended the National Forest Advisory Board meeting in Rapid City on August 15.
- Crystal and Clay traveled to Douglas for the Wyoming State Fair on August 17 to provide the Tracks and Scat activity and assist with the water quality activities with WACD.
- The Little Powder River Watershed Committee meeting was held August 28 with Clay and Debbie attending.
- August 28, Jennifer attended the WDA Prairie Dog Meeting in Douglas.
- Crystal provided water quality monitoring sessions during the Campbell County School District Mallo Camp August 29-31 for 5th grade students.
- August 30, Jennifer and Clay were in the field with USFS and CC Weed and Pest personnel examining a potential allotment restoration project.
- August 31, Jennifer and Clay inspected the Timber Stand Improvement project.
- Clay and Debbie continued to water monitor on the Little Powder River on August 2, 13, and 23.
- Clay and Debbie continued to water monitor on Donkey Creek/Stonepile Creek on August 6, 16, and 27.

➤ SEPTEMBER

- Fall data on the cottonwood deep potted tree project was collected on September 5 by Jennifer and Debbie at Spotted Horse and Bitter Creek.
- Crystal provided water quality monitoring sessions during the Campbell County School District Mallo Camp for 5th grade students, September 5-7, and 10-14. A total of 731 students attended the 3 week sessions.
- Jennifer, Debbie, and Clay attended the Board meeting September 11.
- Clay attended the Ranching for Profit workshop September 12 in Gillette.
- September 13, Jennifer and Clay inspected the Timber Stand Improvement Project.
- September 17-20, Jennifer attended the NACD Pacific and Southwest Regional meeting in Washington.
- Debbie, Crystal, Clay, Jaime, Bob, and Brenda Schladweiler attended the Area I meeting in Moorcroft on September 18.
- The final inspection on the Timber Stand Improvement Project was on September 21 by Jennifer and Clay.
- Jennifer, Clay, Jaime, and Bob met with the City of Gillette September 24.
- Clay inspected cover crop sites with NRCS on September 25.
- September 25, Jennifer attended the BLM Prairie Dog meeting in Douglas.
- Crystal provided the solar oven educational activity for 42 home school students on September 25.
- Jennifer and Clay met with the Waste Water Treatment Plant staff and NRCS to discuss a project on September 26.
- September 27, Clay, Jennifer, and Debbie attended the Little Powder River Watershed Committee meeting.
- Water monitoring of Donkey Creek/Stonepile Creek was on September 10 and the season was completed on the 20th.
- Water monitoring of Little Powder River was on September 6 and 17, completing the season on the 27th.

OCTOBER

- Jennifer attended the Small Acre Issue Team meeting in Casper on October 3.
- Crystal, Debbie, and Jennifer attended the Board meeting on October 9.
- October 9, Bob and Casey attended the Gillette Chamber Lunch meeting.
- As President-Elect of the Society for Range Management, Wyoming Section, Clay attended the annual meeting in Sheridan October 9– 11.
- Debbie attended the Northern Rockies Tree School in Cody, October 11 and 12.
- October 16, Jennifer and Jaime traveled to Casper to participate in the National Conservation Planning Partnership meeting.
- Crystal will be providing the Water Match Activity for Home school students on October 23.
- Jennifer will be attending the Wyoming State Forestry meeting concerning long eared bats in Newcastle on October 23.
- The Little Powder River Watershed meeting will be held October 25 with Jennifer, Debbie, and Clay participating.
- Jennifer plans to attend the BLM Prairie Dog meeting in Douglas on October 30.
- October 30, Crystal will participate in the Project Learning Tree meeting in Sundance.

WEED BARRIER INFORMATION

DeWitt Sunbelt woven ground cover consists of 3.2 oz. polypropylene, which resists tearing, puncturing and weed penetration. This product is offered on the seedling tree order form only and is not kept in stock. **THE LAST DAY TO ORDER WEED BARRIER IS MARCH 1st. SEE THE ORDER FORM INCLUDED IN THIS NEWSLETTER!**

LIVESTOCK WATER STORAGE TANKS FOR FIRE SUPPRESSION
By Tim Kellogg, NRCS

One of the challenges that our fire department faces, while battling wildfire, is easy access to water for their engines. Often the fire department must dispatch a water tender to a fire to supply the water needed for fire suppression. Depending on terrain the tender may be a few miles from the fire. This means more travel time to a water source and takes time and personnel away from the fire line.

This concern was identified as one of the many challenges facing firefighters in Campbell County at one of the Regional Hazard Mitigation meetings that were held this past spring. One of the solutions mentioned was to assist firefighters in identifying the locations of the livestock water storage tanks on the ranches around the county.

Dale Izatt, CCFD, and Tim Kellogg, NRCS, discussed this after the meeting and came up with a proposal: Landowners could voluntarily give the location of their storage tanks to CCFD and the Gillette NRCS field office to create a digital map layer for the fire department to use during fire season.

In order for NRCS to share the location of potential water resources with CCFD, each landowner would need to give NRCS signed written permission.

If you are interested in being part of this voluntary effort or have questions, please contact Tim Kellogg at the Gillette NRCS field office located 601 4J Court, Suite C or call 307-696-4446.

**JANUARY
15,
2019**



**SAVE
THE
DATE**

**SOIL WORKSHOP #3 WITH
MARLON WINGER, NRCS.
CHECK OUT OUR WEBSITE IN
DECEMBER FOR MORE
INFORMATION OR CALL THE
CCCD AT 682-1824**

Web Soil Survey

A Users Guide Series

this issue...

- Soils Report Tab
- Shopping Cart (Free) Tab

Series Wrap Up...

- Tips and Tricks

Final Steps in Using WSS

When we last left off, we were working in the Soil Data Explorer Tab and its inner tabs. So far, we have discussed 4 of the 5 tabs and are left with the Soils Reports tab. Once I have covered the Soil Reports tab we will return to the remaining main tabs and finish up with some helpful hints.

The Soil Reports tab includes various formatted tabular and narrative report tables which containing data for each soil map unit in your AOI, and the components of those soil map units. Unlike the reports in the "Suitabilities and Limitations" and "Soil Properties and Qualities" tabs, no aggregation of data is done. The reports contain soil interpretive information as well as basic soil properties and qualities. Reports are organized by category and can be opened by clicking in the panel to the left and selecting a report. If you would like to learn more about the report, click View Description. To view the report, click View Soil Report and only the major components of the map unit will be included. If you would like, in the Options pane, you can select "Include Minor Soils" which will include all the map unit components in a report, regardless of their percent composition.

The last step in using Web Soil Survey is to get a Custom Soil Resource Report. This report can be generated from information you have added to the "Shopping Cart (Free)" tab from the Soil Map and Soil Data Explorer tabs. To customize your report, while in these tabs you will need to add the specific data you want to your shopping cart. To do this you'll view the information in the right column, and then click the Add to Shopping Cart button. Again, I would like to stress that even though it is called a shopping cart and you check out when you are done, everything is free. The first thing you will see in the Shopping Cart tab is the report properties panel which contains title and map options. The title of your report cannot be changed and always includes the name of the soil survey areas in your AOI. You can however, optionally add your own subtitle to the report. You can use the AOI name if you entered one on the AOI tab or enter a custom subtitle in the "Custom Subtitle" box or eliminate the subtitle entirely by selecting "None".

Map Options will specify how all the maps included in your report will be generated. The printed map always displays the full AOI extent, regardless of how you may have zoomed or panned the map on the screen. If you want your maps to be rendered to a certain scale, you may select your desired scale.

It may be that map scale values are disabled and unavailable because your AOI is so big that your maps cannot be printed on any of the available paper sizes. Note that when selecting a different scale, the choices for paper size will show if your maps will fit on a single sheet, or they will need to be "tiled" or broken up into multiple sheets. The last option you have for the maps is whether you want tick marks on the edge of the map. Tick marks represent meter coordinates in the UTM system and you can use them to locate items within your map or to compare your map with other maps.

Next, you can preview the contents of the report by clicking on items in the Table of Contents (TOC) panel. Here you can check or uncheck items to include or exclude that item from your custom report. Note that required content cannot be unchecked. If nothing appears in your TOC it is because you have not used the Add to Shopping Cart button while in the Soil Data Explorer and Soil Map tabs. Click an item in the TOC to highlight it. That section will appear in the display panel to the right of the TOC. To make it go away, click the item again, or highlight something else.

Finally, click the Check Out button and select a delivery method. You can either generate your report now or download it later, depending on the size of your report. If you select "Get Now" WSS will immediately create a PDF file which will open in a separate browser window and can be printed or saved. If you select "Download Later," you will be prompted to enter your email address. WSS will assemble your report and notify you via email the URL for your PDF when it is ready. "Get Now" is intended for relatively small reports and "Download Later" is intended for larger reports, however there is a limit to the size of report that WSS can generate. If the limit is reached the system will inform you and you'll need to deselect some items in the TOC.

This completes our walk-through for using WSS. As I have mentioned previously there are a lot better and more complete publications and tutorials available on how to use WSS that will be able to go into much greater detail and provide you with illustrations. On the following page will be some tips and tricks I have learned about while using WSS.



Tips & Tricks

Printable Version vs Add to Shopping Cart...

They are actually the same thing really. An example would be if you are hunting for specific information in WSS. Instead of adding what you want to the shopping cart and then generating a report with all the required information that goes on a report you can just use the Printable Version button and it will provide you with a PDF with just the information from that page. "Add to Shopping Cart" makes it easier to assemble a complete report especially if you have multiple items you would like details on.

Viewing Soil Information By Use...

If you are only looking for information relating to a certain land use you can filter the data. For example, say you were only interested in data related to cropland. While in the Soil Data Explorer tab right below is the drop-down menu to View Soil By Use. The drop-down option defaults to All uses so that all information is displayed, but you can choose from Cropland, Forestland, Hayland/Pastureland, Horticulture, Rangeland, Recreation and Urban Uses to filter the data so only information relating to selected land uses is displayed.

Saving your AOI...

Sadly, there is no way to save your entire session of WSS if you run out of time, however there are two ways you can save your AOI. The first is the "Link" option above the main tabs. Use the link to return to WSS exactly as it is now, with the same AOI, and with the map zoomed to the same location. You can bookmark the link, copy it and save it for future use, or email it to others. This is good for simple shaped AOIs with fewer vertexes. The more vertexes you have, the longer the link will be. The second method is to use the Export AOI option. This option becomes available below the Import AOI after you have added an AOI to your map. This will export your AOI as a zipped ESRI shapefile that you can use to re-open your AOI in WSS using Import AOI or save it so that you can open it in another application. Export AOI exports your AOI as a zipped shapefile consisting of four files, using the base filename entered as Base filename. To export your AOI as a zipped shapefile, enter a value for base filename. Note the base filename must consist only of letters, numbers, and "_" instead of using a space. Once you have created a base filename, press Export AOI and an information dialog will be displayed containing a link to your exported AOI, as a zipped shapefile. If you click the link, your browser will download the file and do whatever it is configured to do with zip files. If you right-click the link, your browser will present a context menu allowing you to save the zip file or open it in a suitable application. This is the method I recommend. Once it is saved you can re-import the zipped shapefile using Import AOI → Create AOI from Zipped Shapefile.

Downloading Soils Data...

We didn't cover this tab in the main articles, but you can download Soils Data for just your AOI or entire soil survey areas. These data packages are a zip file containing tabular soils data, a blank template database, and spatial soils data. Once downloaded, this data can be used in conjunction with your GIS and database software to perform custom analysis, queries, and reports to meet your specific needs. This option would be for more of you who are tech savvy and probably use either GIS or databases on a regular basis. For help on how to download or what to do with the data after it is downloaded use the "?" buttons in each section.

COMING SOON

My next series will be covering the Farm Bill
and its relation to NRCS Programs

2019 CCCD Seedling Tree Order Form

Conditions of Sale

1. This nursery stock must be used for conservation purposes only.
2. No plant purchased from the CCCD may be resold as a living plant.
3. Bareroot stock is available in multiples of 25 per species only.
4. Tube stock is available in multiples of 30 per species only.
5. No guarantee of survival.
6. Payment must accompany the order.

Order No. _____

TREE PICK UP DATE IS MAY 2ND AT THE ROCKPILE ICE ARENA - 121 4J ROAD, GILLETTE.

We will contact you prior to delivery with the time for pick up.

I have read and agree with the above "Conditions of Sale".

Signature Date

Name (please print) Mailing Address

City	State	Zip Code	Daytime phone: _____
			Evening phone: _____
			E-mail address: _____

Acres of ownership County

How did you learn of the CCCD tree sale? (circle one)	CCCD website	CCCD facebook page
	CCCD Newsletter	Other _____

Send order form and check made payable to:
Any questions call- (307) 682-1824

Campbell County Conservation District (CCCD)
601 4J Court, Suite D, Gillette, WY 82716

SHRUBS

BUFFALO BERRY: native, good drought resistance, edible fruit
 CARAGANA: medium to tall, does well on poor soils, excellent drought resistance, rapid growth rate
 CHOKECHERRY: tall shrub, can be poisonous to livestock, rapid growth rate, prefers well drained soil
 COYOTE WILLOW: suckers, rapid growth rate on moist soil
 LILAC: excellent cold hardiness, rapid growth rate
 N.M. PRIVET: very tall, alkaline tolerance, native
 NANKING CHERRY: rapid growth rate, Fruit edible
 NATIVE PLUM: tall shrub or short tree, does well on most soils, rapid growth rate, edible fruit, thorns
 WAX CURRANT: very good drought resistance, rapid growth rate, edible fruit, native
 WOODS ROSE: Low shrub; rapid growth rate, suckers

MANCHURIAN APRICOT: Small, fast growing, drought resistant, winter hardy
 PRAIRIE SKY POPLAR: (USUALLY COTTONLESS) rapid growth rate, cottonwood cross
 SIBERIAN ELM: rapid growth rate, excellent drought resistance and cold hardiness

CONIFER TREES

AUSTRIAN PINE: Tall, excellent drought resistance
 BLACK HILLS SPRUCE: cold resistant, prefers well drained soil, drought and alkaline tolerant
 COLORADO BLUE SPRUCE: Tall, slow growth rate
 EASTERN RED CEDAR: Medium height, drought tolerant, very adaptable to site conditions, red-brown color in winter
 PONDEROSA PINE: Tall, rapid growth rate, needs well drained soils
 ROCKY MOUNTAIN JUNIPER: excellent drought resistance and cold hardiness, alkaline tolerant

DECIDUOUS TREES

ASPEN: Tall, poor drought resistance
 BUR OAK: Hardy, drought resistant, slow growth rate
 COTTONWOOD, LANCELEAF: low drought resistance, rapid growth rate, suckers
 COTTONWOOD, PLAINS: rapid growth, adapts to most soils, high drought tolerance - **produces cotton**
 HACKBERRY: Tall tree, good drought resistance
 HONEYLOCUST: good drought resistance, rapid growth

WINDBREAK 101

Courtesy of Laramie County Conservation District

Planting Tree Rows

An average planting consists of at least three rows to achieve good wind protection. A typical planting consists of shrubs or shorter trees comprising the outer rows, while evergreens (the foundation of the wind-break) should make up at least one inside row. Your tallest trees should be in the inside row(s). You should not make all your tree rows the same species (i.e. three rows of juniper.) This will help protect your windbreak in the event of a disease or insect destroying all of one species. Planting different types of trees in the same row can create gaps and reduce windbreak effectiveness.

Spacing Within and Between Rows

The District suggests the following tree spacing distances to use when planting trees and shrubs in a row. Windbreak rows should be planted 20 feet apart. Always leave enough distance between rows and around your windbreak to allow cultivating equipment passage.

Suggested Tree Spacing

Shrubs (i.e: Caragana, Lilac, Buffaloberry, Native Plum, Chokecherry) – Plant 3-6 feet apart

Smaller Evergreen Species (i.e: Rocky Mountain Juniper, Eastern Redcedar) – Plant 6-12 feet apart

Large Evergreen Species (i.e: Pine and Spruce) – Plant 10-12 feet apart

Deciduous Trees (i.e., Bur Oak, Hackberry, Siberian Elm, Cottonwood) – Plant 10-14 feet apart

Remember the above spacing recommendations are simply guidelines, depending on how you want to utilize your planting. For example: for a windbreak, trees will be spaced closer, whereas trees in a wildlife planting are spaced a little farther apart. If you have questions, please call the District for further information.

Preparing Your Planting Site

Proper site preparation is very important for windbreaks. Plows, disks, or rototillers can be used to achieve necessary tillage and are available at rental equipment stores and landscape companies. Fallowing the fall before planting is essential for dry land windbreaks to allow moisture to accumulate during the winter. Rows should be 8 feet wide and 6-8 inches deep.

Weed and Moisture Management

Weed control is an extremely important factor for tree growth and survival. Weed and vegetative competition control should be provided for at least five years. Remember that weeds are better competitors than seedlings for moisture, nutrients and sunlight. They also provide fuel for fires and habitat for tree-injuring pests. Mulch, cultivation and herbicides are three basic methods for controlling weeds. The District sells fabric mulch in 300 ft. rolls. Fabric mulch has significantly improved the survival of tree plantings. Fabric mulch allows moisture to pass through to the soil but minimizes moisture loss through evaporation.

Irrigation may be needed at planting time and is often helpful throughout the first several growing seasons. Generally, the District recommends 10 gallons of water for every inch in tree diameter. Also, it is recommended that you cease watering your trees at the end of August to allow the tree to harden off. Watering beyond this time can cause die back of new growth from an early freeze.

Winter Care

Snow cover is helpful to the young trees. A snow fence on the windward side of the windbreak the first year or two will protect plants from desiccation and add soil moisture. Protection from the wind – most evergreen species require protection from wind, especially during winter months. Sunlight reflected off snow and wind can quickly dry unprotected conifer foliage. It is recommended to install wind protection for evergreen trees the first three years of establishment or until the trees are taller than the protectors. The Conservation District sells the mesh, bi-fold tree protectors. Please note that the District has no control over inventories of these protectors, so be sure to call ahead of time to check availability. Other items that can be used for wind protection include wood shakes and bales of straw.

Campbell County Conservation District
601 4J Court, Suite D
P.O. Box 2577
Gillette, WY 82717 - 2577



NP MKT ML
PERMIT NO. 70
Gillette, WY 82716

Phone: (307) 682-1824 Fax: (307) 682-3813 E-Mail: icd@vcn.com

RETURN SERVICE REQUESTED



HOLIDAY OPEN HOUSE

December 7, 2018
1:00 pm to 3:00 pm
601 4J Court
Gillette, WY

Hosted by:
Campbell County Conservation District,
Natural Resources
Conservation Service,
and Farm Service Agency

