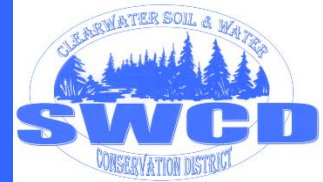


# The Clearwater SWCD Conservator



Volume 4, Issue 2

Spring 2013

**Our mission is simple** - to promote the wise use and improvement of our county resources, in order that future generations will inherit an economically viable county that has made wise choices in resource management.

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Clearwater SWCD  
312 Main Ave N, Ste 3  
Bagley, MN 56621

Phone: 218-694-6845  
www.clearwaterswcd.org

## New Grant Funds Incentives to Install Vegetative Buffers

Clearwater Soil and Water Conservation District (SWCD) recently received over \$119,000 to help landowners protect local natural resources through generous cost sharing and additional financial incentives. We received this Clean Water Fund grant from the Minnesota Board of Water and Soil Resources. These funds boost local efforts to protect county water quality and reduce harmful erosion. This grant targets the Clearwater River Watershed which includes the Silver Creek, Ruffy Brook and Lost River sub watersheds.

One element of this grant funds protection of the Lost River, specifically the JD 72 ditch system, northwest of Gonvick. The SWCD is

partnering with the Red Lake Watershed District (RLWD) to work with landowners to install vegetated buffers along this drainage. These plant buffers will improve water quality by reducing the sediment entering the ditch. Less sediment entering the ditch will also save the RLWD time and money to maintain the ditch. A good buffer will also help stabilize the ditch bank and provide a good work area for ditch maintenance by the RLWD.

Another component of the grant serves agricultural producers in the Clearwater River Watershed. The grant provides assistance to install plant, shrub and tree buffers on sensitive sites adjacent to waterways, streams, and lakes. In these tight economic times

it can be challenging to make important investments in water quality protection. The grant provides participating landowners with increased financial assistance and additional incentives to install these beneficial practices on their land.

Clearwater SWCD encourages interested producers and landowners to call the office if interested in these volunteer conservation opportunities. Best Management Practices (BMPs), such as the buffers mentioned above benefit everyone. Producers save money by keeping more soil and nutrients on the land and the community benefits by having clean lakes and streams with greater recreational

*(Continued on page 3)*



Photo courtesy of USDA-NRCS.

### 4 Things a Shelterbelt or Windbreak Can Do For You

- Hold soil where it belongs—in your fields and pastures
- Clean water and prevent runoff from contaminating lakes and streams
- Save money on livestock feed costs, reduce animal stress, and improve pasture conditions
  - Cut your heating bill through appropriate placement near homes and outbuildings

### 5 Ways Clearwater SWCD Can Help You Enjoy Shelterbelt and Windbreak Benefits

- Create custom designs for your specific site and needs
  - Offer you diverse tree and shrub species at affordable prices
  - Rent you a mechanical tree planter when the trees arrive
- Contract to plant the trees for you and save you time
- Financial assistance available to plant shelterbelts/windbreaks that meet certain requirements

Isn't it time to start enjoying these benefits for your fields, pastures, and home? Call Clearwater SWCD today!

# 12 Benefits You'll Enjoy By Planting Cover Crops

By Brooke Knick

During the recent droughts **Cover Crops** have become the latest buzz words in agriculture. A cover crop is a crop that is planted after the traditional crops are harvested. Cover crops can also be seeded at the same time as the traditional crop. The two crops will grow side by side and benefit each other. So why the big cover crop excitement? Research has shown that utilizing cover crops has many benefits which are listed below.

Turnips used as a cover crop within a corn planting



The USDA is an equal opportunity provider and employer.



Crimson clover used as a cover crop within a corn planting

1. **Available Water:** During a drought or the high heat of July and August, cover crops keep water higher in the soil profile by cooling the soil. Direct sunlight on the soil causes higher soil temperatures and higher rates of plant water loss.
2. **Soil Fertility:** Crop diversity increases soil fertility. Growing the same 2 or 3 crop rotation will slowly strip soil of micronutrients – which we don't usually soil test for. Tillage radishes can be used to harvest calcium from the subsoil and bring it to the surface. More calcium means less liming. And as for the major nutrients that we do test for, legumes add nitrogen to soil. Buckwheat converts insoluble phosphorus to a more available form. Rye and barley can be used to increase potassium and carbon.
3. **Microbial Activity:** Incorporating a variety of species stimulates increased soil microbial activity leading to more available phosphorus and thus less fertilizer.
4. **Soil Glue:** Increased microbial activity leads to more natural glues in soil. These glues keep the soil particles stuck together protecting them from both wind and rain erosion.
5. **Soil Organic Matter:** Cover crops provide a second set of roots in the soil, increasing the amount of organic matter. More organic matter equals more profitable soils.
6. **Nutrient Cycling:** Cover crops can be used to drastically reduce fertilizer inputs. Deep-rooted species (tillage radishes and turnips) capture deeply leached nitrogen and bring it near the soil surface for shallower-rooted crops (wheat and soybeans).
7. **Nutrient Storage:** Nutrients like nitrogen that aren't [immediately] utilized can be quickly leached in a big rain event. Cover crops utilize the nutrients and keep them in the soil. Using legumes in a cover crop can even supply slow release nitrogen to existing and future crops.
8. **Surface Residue:** Surface residue shields soil from sun, wind, and rain. Meaning cover crops protect soil from erosion and protect plants from heat stress.
9. **Weed Suppression:** Cover crops protect soils from weed invasions.
10. **Soil Infiltration:** Using cover crops keep the soil's structure intact. This allows water to be absorbed quickly into the soil profile and preserves it for later use.
11. **Higher Net Income:** As gas prices climb, doing more practices in the field costs more money. With cover crops, you can spray or roll/crimp the cover and then plant directly into them. In a study comparing using cover crops to traditional farming, one less herbicide application was made on the corn field with cover crops. One less application means saving more money on gas and chemicals.
12. **Break Up of Compaction:** Radishes and turnips are cover crops that break up compaction. Their 2-foot taproots reach deeper into the soils than deep tillage equipment. After the radish dies, its roots decompose and leave a long channel through the soil. These channels allow roots, water, and air further access into the soil. The Tillage Radish was the 2012 No Till Product of the Year.

For more information on cover crops, contact the Natural Resources Conservation Service at **312 Main Ave N in Bagley**. Or call **(218) 694-6584 ext 3**.

Currently, there is an Environmental Quality Incentives Program (EQIP) sign-up for financial assistance to try cover crops on a small field of your farm for a period of 5 years. EQIP pays \$83.14 per acre. Their payment is capped at \$4000 which roughly equals 48 acres.

**Brooke Knick** has been a technician with the NRCS for the past 3 years. She transferred to Bagley in November of 2012.

# 2013 Tree Order Form

Clearwater Soil & Water Conservation District

312 Main Ave N, Suite 3, Bagley MN 56621

Phone/Fax (218) 694-6845 ■ www.clearwaterswcd.org

Name \_\_\_\_\_

Date \_\_\_\_\_

Address \_\_\_\_\_

Phone \_\_\_\_\_

Street or Box

City

Zip

Email \_\_\_\_\_

Please provide your email address if you have one. We will use it to remind you when trees are in.

**This column  
is for office  
use only.**

## NEW: MULTI-VARIETY NATIVE SPECIES PACKS

Species	Size	Price/Bundle	# of Bundles	Total Cost	Packed
<b>Bird &amp; Grouse Small Pack: Cranberry, Highbush (5); Dogwood, Gray (5); Hawthorne, Downy (5); Hazelnut (5); Nannyberry, Viburnum (5); 25 total</b>	same sizes as listed below	\$31.50			
Bird & Grouse Large Pack: Cranberry, Highbush (25); Dogwood, Gray (25); Hawthorne, Downy (25); Hazelnut (25); Nannyberry, Viburnum (25); 125 total	same sizes as listed below	\$132.50	—	—	—
Jam & Jelly Small Pack: Cherry, Pin (5); Chokecherry, Common (5); Grape, Riverbank (5); Plum, American (5); Serviceberry/Juneberry, Alleghany (5); 25 total	same sizes as listed below	\$31.50	—	—	—
Jam & Jelly Large Pack: Cherry, Pin (25); Chokecherry, Common (25); Grape, Riverbank (15); Plum, American (25); Serviceberry/Juneberry, Alleghany (25); 115 total	same sizes as listed below	\$123.00	—	—	—

Multi-variety tree packs are in limited supply, order soon for best availability. NO SUBSTITUTIONS.

Drought tolerance: T=Terolant; A=Average tolerance; S=Sensitive to drought; Acceptable site drainage:

**Call us with  
any  
questions!**

SHRUBS, SMALL TREES, ETC.	P=Poor drainage; M=Moderate drainage; E=Excessive drainage					
Species	Drought Tolerance - Site Drainage	Size	Price/Bundle	# of Bundles	Total Cost	Packed
<b>Climbing Vine: Grape, Riverbank (10)</b>	<b>T - P, M, E</b>	<b>12 - 18"</b>	<b>\$13.00</b>			
<b>Ash, American Mountain (25)</b>	<b>A - P, M</b>	<b>18 - 24"</b>	<b>\$27.50</b>			
<b>Cherry, Nanking (25)</b>	<b>T - M, E</b>	<b>18 - 24"</b>	<b>\$27.50</b>			
Cherry, Pin (25)	A - M, E	18 - 24"	\$27.50	—	—	—
Chokeberry, Black (25)	T - P, M, E	18 - 24"	\$27.50	—	—	—
Chokecherry, Common (25)	T - M, E	18 - 24"	\$27.50	—	—	—
Crab, Midwest Manchurian (25)	S - M	18 - 24"	\$27.50	—	—	—
Crab, Red Splendor (25)	S - M	18 - 24"	\$27.50	—	—	—
Cranberry, Highbush (25)	T - P, M	18 - 24"	\$27.50	—	—	—
Currant, Black (25)	A - P, M	12 - 18"	\$27.50	—	—	—
Dogwood, Gray (25)	T - M, E	18 - 24"	\$27.50	—	—	—
Dogwood, Red Osier (25)	A - P, M	18 - 24"	\$27.50	—	—	—
Elderberry, American (25)	A - M	18 - 24"	\$27.50	—	—	—
<b>Hawthorn, Downy (25)</b>	<b>T - M, E</b>	<b>18 - 24"</b>	<b>\$27.50</b>			
Hazelnut (25)	A - M, E	8 - 18"	\$27.50	—	—	—
Lilac, Common (25)	A - M	18 - 24"	\$27.50	—	—	—
Lilac, Vilosa (25)	A - M	18 - 24"	\$27.50	—	—	—
Nannyberry, Viburnum (25)	T - P, M, E	12 - 18"	\$27.50	—	—	—
Ninebark (25)	T - P, M, E	18 - 24"	\$27.50	—	—	—
Plum, American (25)	T - M, E	18 - 24"	\$27.50	—	—	—
<b>Serviceberry/Juneberry, Alleghany (25)</b>	<b>S - M</b>	<b>18 - 24"</b>	<b>\$27.50</b>			

## CONIFERS

Species	Drought Tolerance - Site Drainage	Size	Price/Bundle	# of Bundles	Total Cost	Packed
<b>Cedar, White (25)</b>	<b>A - P, M</b>	<b>TR 8 - 16"</b>	<b>\$28.50</b>			
Pine, Jack (25)	T - M, E	8 - 14"	\$20.00	—	—	—
<b>Pine, Red (Norway) (25)</b>	<b>S - M, E</b>	<b>6 - 12"</b>	<b>\$14.75</b>			
<b>Pine, Red (Norway) (25)</b>	<b>S - M, E</b>	<b>TR 8 - 24"</b>	<b>\$26.00</b>			
Pine, White (25)	S - M	5 - 12"	\$14.75	—	—	—
<b>Pine, White (25)</b>	<b>S - M</b>	<b>TR 8 - 16"</b>	<b>\$26.00</b>			
<b>Spruce, Black (25)</b>	<b>A - P, M</b>	<b>5 - 12"</b>	<b>\$20.00</b>			

**CONIFERS, continued**

Spruce, White (25)	S - M	5 - 12"	\$14.75	—	—	—
Spruce, White (25)	S - M	TR 8 - 18"	\$26.00			
Tamarack (25)	A - P, M	6 - 12"	\$25.00	—	—	—

**TALL TREES**

Species	Drought Tolerance - Site Drainage	Size	Price/Bundle	# of Bundles	Total Cost	Packed
Birch, Paper (25)	S - P, M	18 - 24"	\$27.00			
Birch, Yellow (25)	S - P, M, E	5 - 12"	\$27.00	—	—	—
Cottonwood, Siouland (25)	T - P, M, E	18 - 24"	\$27.00	—	—	—
Hackberry (25)	T - P, M, E	18 - 24"	\$27.00	—	—	—
Maple, Red (25)	S - P, M	18 - 24"	\$27.00	—	—	—
Maple, Silver (25)	T - P, M	18 - 24"	\$27.00	—	—	—
Maple, Sugar (25)	S - M	18 - 24"	\$27.00	—	—	—
Oak, Bur (25)	T - M	18 - 24"	\$27.00	—	—	—
Oak, Red (25)	S - M	18 - 24"	\$27.00	—	—	—
Poplar Cuttings, Hybrid (25)	S - M	18 - 24"	\$27.00	—	—	—
Walnut, Black (25)	T - M	18 - 24"	\$27.00			

TREE TUBES		COST	Quantity	Total Cost	Packed
Tree Tubes, 48"		\$3.75			
Stakes for tree tubes	call Clearwater SWCD to find out stake prices				

DEER REPELLANT	SIZE	Plants Treated	COST	# of Boxes	Total Cost	Packed
Plantskydd Pre-mixed Spray	1 Liter	100	\$20.00			
Plantskydd Powder	1 lb. Box	200-400	\$24.00			
Plantskydd Powder	2.2 lb. Box	400-800	\$44.00			

CLEARWATER COUNTY PLAT BOOKS		SHIPPING	COST	Quantity	Total Cost	Packed
2011 Plat Book (add \$3.00 and we will mail book to you)		\$3.00 (optional)	\$28.00			

I understand the Clearwater SWCD does not guarantee survival, size, or replacement of tree stock. Due to the perishable nature of the stock, the Clearwater SWCD will not be responsible for the condition of trees after pick up or if picked up after the scheduled dates. It is not the intent of the SWCD to compete with private nurseries.

Signed \_\_\_\_\_ Date \_\_\_\_\_

Total Cost of Trees, Deer Repellants, Plat Books, & Shipping	_____			_____
Add MN Sales Tax 6.875% (total cost x .06875)		+		_____
Example 1: \$27.50 x .06875= 1.890625 so your tax is \$1.89				
Example 2: \$108 x .06875= 7.425 so your tax is \$7.43		<b>TOTAL =</b>		_____
<div style="border: 1px solid black; border-radius: 15px; padding: 5px; display: inline-block;">                     Make checks payable to Clearwater SWCD                 </div>				

Planting Site:  
 County \_\_\_\_\_ Township \_\_\_\_\_ Section \_\_\_\_\_

**TERMS**

Payment must accompany all orders unless other arrangements have been made with the Clearwater SWCD office. For assignments of payment through NRCS and FSA programs please contact our office to make arrangements. Tax-exempt individuals or organizations must have a tax-exempt certificate completed and filed with this office.

**TREE PICK-UP INFORMATION**

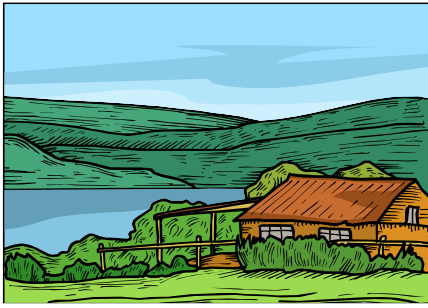
The SWCD office will notify you of any changes to the scheduled pickup dates. Please check our website for updates at [clearwaterswcd.org](http://clearwaterswcd.org). The pickup site is located at the DNR Forestry storage building north of Bagley on Hwy 92. Questions please call 218-694-6845 or email [kathy.rasch@mn.nacdnet.net](mailto:kathy.rasch@mn.nacdnet.net) Pickup times and dates are as follows:

**Thursday, April 25th 4-6 / Friday, April 26th 3-7 / Saturday, April 27th 8-1. Due to staff shortages, prior arrangements must be made to pick up trees outside scheduled hours.**

**SWCD SERVICES & INFORMATION**

If you would like info on any of the following items please contact our office at 218-694-6845: Cost Share Opportunities; Tree Species Information; Tree Planter Rental; Custom Tree Planting Bid; SWCD Conservation Farm Educational Trails; Buffer Strip or Field Windbreak Information.

### Do you live on a lakeshore?



### Do you want to protect your shoreline from erosion, wave action, and ice movement?

Clearwater SWCD can design a more resilient shoreline for you! We incorporate native flowers, grasses, and shrubs to protect your property *and* the lake you love.

Financial assistance available to qualifying partners!

## New Buffer Grant

*(Continued from page 1)*

opportunities for everyone.

Clearwater SWCD encourages local residents to reach office staff at 218-694-6845 with questions about conservation problems and programs. Clean Water Fund grants come from the Clean Water, Land and Legacy Amendment approved by Minnesota voters in 2008.

By Kathy Rasch, District Manager, Clearwater SWCD



# Living on the Edge

Did you know Clearwater County lies directly on the Laurentian Divide? This divide separates the water that flows north to the Atlantic Ocean through Hudson Bay from the water that flows south to the Atlantic Ocean through the Gulf of Mexico. Most of the precipitation falling within the county border finds its way to the Red River and heads north to the Atlantic. A smaller portion of the county sends its water south down the Mississippi River to the Atlantic. This unique positioning makes Clearwater County the headwaters of the Wild Rice River, Clearwater River, Lost River, and of course, the mighty Mississippi River, along with the rest of the waterways in the county.

Being the headwaters of our region allows us to send all of our runoff downstream out of our county without receiving much, if any, runoff from our neighbors. Most counties can point a finger somewhere upstream out of their border as the cause of poor water quality. We are not afforded this escape. We are solely responsible for the quality of water present in Clearwater County. The only exception to this would be a small portion of the Clearwater River Watershed that flows in from Beltrami County.

As the source of many important streams and rivers, we have been granted the responsibility of sending clean water on to our neighbors. Many of Clearwater County's lakes and streams have great water quality, but this is not always the case. Some of our waters are impaired with E. coli, sediment, phosphorus, and/or experience low dissolved oxygen. Any of these impairments prevent them from providing the quality habitat and recreational value they are capable of. As you live, work, and play within Clearwater County, enjoy the great water quality we are blessed with and strive to pass clean water on downstream.

By Nathan Nordlund, Program Technician, Clearwater SWCD

Being the headwaters of our region allows us to send all of our runoff downstream out of our county without receiving much, if any, runoff from our neighbors.





**Species Spotlight—Serviceberry/Juneberry:** Serviceberry, sometimes called juneberry, is a useful shrub in the landscape. As a food they are as valued by birds such as robins, warblers, orioles, cedar waxwings, and other fruit-eating birds. People like them too! Juneberries make wonderful jams, jellies, and pies if you can beat the birds to them. With their attractive and fragrant spring flowers, they can be planted as lovely specimens in the yard. They also work well in windbreaks and shelterbelts or naturalized in an open to semi-wooded area.



Photo courtesy of MinDOT

Serviceberry adapts to a range of soil types although it will prefer a site with adequate moisture supply. Mature height is usually around 15 feet, up to 20 feet, with a multi-stemmed shrub form.

With its exceptional attributes and versatility, you can't go wrong planting serviceberry for the birds or for yourself!

### Clearwater Soil and Water Conservation District

Clearwater SWCD  
312 Main Ave N, Ste 3  
Bagley, MN 56621  
Phone: 218-694-6845  
[www.clearwaterswcd.org](http://www.clearwaterswcd.org)

**Our mission is simple** - to promote the wise use and improvement of our county resources, in order that future generations will inherit an economically viable county that has made wise choices in resource management.

**Species Spotlight—White Cedar:** This well-known tree is an icon of the northern forests. Unfortunately white cedar had declined dramatically in recent years. For many songbirds like warblers, waxwings, and other species that depend on cedar as a major food source this is a serious problem. Years ago the deer herds which yarded up in our cedar swamps to survive long, deep snow winters were legendary.

Planting cedar helps to sustain this valuable wildlife tree as well as add beauty to the landscape. It works well to create a thick dense hedge. Cedar has long been valued for its medicinal properties as an aid in healing wounds. Cedar boughs are beautiful in traditional wreaths at the holidays. White cedar, while commonly associated with the "cedar swamp" condition, also does well upland on well-drained soils with adequate moisture.

To fend off hungry deer the application of an effective repellent, such as Plantskydd (available at Clearwater SWCD), or fencing is recommended. Repellent application a couple times each year will provide valuable protection, so you can enjoy these beautiful trees for decades to come.



Photo courtesy of USDA NRCS

## Local Grant to Fund Septic System Fix-Ups!

Clearwater County Environmental Services has received a grant from the Minnesota Pollution Control Agency to offer cost-share with low-income homeowners for the replacement of failing septic systems on homesteaded single-family home property in Clearwater County. Funding is sufficient for only 5 or 6 projects at a 50% cost-share level, and these projects will be awarded on a first-come first-served basis. Homeowners must demonstrate they meet low-income criteria of the U.S. Department of Agriculture and there must be a formal Notice of Non-Compliance issued by a licensed contractor for the septic system being replaced. Watch for advertisements in local newspapers for more details or contact Clearwater County Environmental Services at 694-6183.