



Winter 2011

Volume 25, Issue 1

# Tri-Basin Topics

A quarterly publication of Tri-Basin Natural Resources District

## Annual Holdrege Water Conference Set for February 3

The annual Holdrege Water Conference will be held Thursday, February 3, 2011 at the Phelps County Ag Center. Registration is at 10 a.m. and sessions will start at 10:15 a.m. The program should conclude around 3 p.m. A free lunch will be provided for those attending. The conference is sponsored by Tri-Basin Natural Resources District, Central Nebraska Public Power and Irrigation District, UNL Extension and Holdrege Area Chamber of Commerce.

Sessions at the conference will focus on water-related issues that affect agricultural producers in central Nebraska.

The morning session will begin at 10:15 a.m. with an update of Natural Resources Conservation Service programs from District Conservationist Kevin Breece and Irrigation Water Management Specialist Curtis Scheele.

The remainder of the morning sessions will focus on water-related research being conducted by the University of Nebraska-Lincoln. Bill Kranz, UNL Irrigation Specialist will discuss using technology to manage pivots in the future, and Derrell Martin will explain the concept of consumptive crop water use.

Craig Derrickson, the new State Conservationist for NRCS will be the keynote speaker at noon. Derrickson will

give an overview of NRCS programs in the state of Nebraska.

The afternoon's first session will focus on climate change. Tapan Pathak, UNL's Climate Variability Extension Educator, will discuss climate change on a worldwide level. Joy Hayden, from the National Weather Service in Goodland, Kansas, will finish out the session with a presentation on the 1935 Republican River flood.

The final session of the afternoon will have a very local water focus. Eric Hixson from Central Nebraska Public Power and Irrigation District (CNPPID) will talk about small hydropower projects at CNPPID. Corey Steinke, also from CNPPID, will give a Platte Basin surface water supply update. John Thorburn, General Manager of Tri-Basin NRD, will finish out the session with a presentation on aquifer and groundwater levels in the area.

Area agri-businesses will display their products and services at the water conference and have representatives on hand to visit with those who attend the water conference. Producers in Tri-Basin NRD's Phase 2 or Phase 3 areas of the Groundwater Quality Management Area will receive recertification credit for attending the conference.



2010 Holdrege Water Conference

*"Dedicated to Conservation of our Natural Resources"*

<http://www.tribasinrd.org>



## Manager's Message

by John Thorburn

### Snow in the Mountains

When most people hear about mountain snowpack, they think about snow skiing. Is there fresh powder at your favorite Rocky Mountain ski resort? How deep is the base? Snow skiing is a lot of fun, but mountain snowpack is

carefully watched throughout the winter by another group of people for an entirely different reason. As winter turns to spring, and spring to summer, snowpack turns into snowmelt.

Throughout the western US, irrigation districts rely on snowmelt to provide the water that they store in their reservoirs and distribute through their canals. Power districts use the same water to turn turbines in hydro-electric powerplants. Most western cities rely on snowmelt as their primary source of drinking water.

The Platte River system is dependent on mountain snowmelt for about two-thirds of its annual flow. Water managers in the Platte Basin rely on snowpack data to help them predict how much water will be available for irrigation and electric power production in the upcoming summer. Where do they get this data? They get it mostly from the US Department of Agriculture

-Natural Resources Conservation Service (NRCS) Snow Survey and Water Supply Forecasting program. This program collects data from over 900 manually-measured sites and more than 750 automated weather stations in the SNOTEL network.

SNOTEL stands for SNOwpack TELemetry, a network of automated weather stations located throughout the mountains of 12 western states and Alaska. These stations collect data on snow depth, snow-water equivalent, precipitation and temperature. Snow depth is measured using a type of SONAR sensor, while snow-water equivalent is determined with a "snow pillow", which is basically a pressure-

sensor. Data is transmitted from the SNOTEL stations to six master stations by bouncing radio signals off the ionosphere. Data is then distributed to water managers and the general public over the internet from the NRCS National Water and Climate Center in Portland, Oregon. See their website for the latest snowpack reports: <http://www.wcc.nrcs.usda.gov/snow/>

All these data points give forecasters a good basis for figuring out how much water is locked up in mountain snowdrifts. The tricky part is forecasting when and at what rate that snow will melt and run off into streams. Snowmelt is primarily affected by temperature and cloud cover. Runoff can be reduced if mountain soils are dry, or it can be accelerated by spring rains. The picture can be further confused by late, wet snowstorms in the mountains. The snowmelt "season" generally runs from mid-April to mid-June, but large amounts of wet snow can pile up during this period as well, as it did in 2010. Snowpack was about average



through mid-May this year, and melting was well underway, when a series of spring storms blanketed the central Rockies in late May and early June. The result was record runoff, overflowing reservoirs in the North Platte Basin and considerable flooding in eastern Wyoming and western Nebraska.

A "La Nina" weather pattern appears to be firmly in place for the winter of 2010-11. That should mean wide temperature swings and dry conditions on the plains, but high amounts of snowfall in the Rockies. Current snowpack

readings in Colorado and Wyoming are well above average for this time of year, with readings in the upper North Platte Basin at 150% of average as of December 15, 2010. Since all five of the big reservoirs in the North Platte system are full, there isn't much room in the system to hold additional water when the snow melts next spring. For that reason, flows on the Platte in central Nebraska are likely to remain high through next summer. Hopefully, the melt next spring will come slowly. A fast melt could result in substantial flooding throughout the basin. To know for sure, we need to keep an eye on the snowpack, even after snow skiing season is over.

## Nebraska Natives



### Eastern Redcedar (*Juniperus virginiana*)

Eastern redcedar is highly adapted to a wide range of sites and has the highest survival rate of any conifer planted in Nebraska. Its deep roots and small leaf surface make it very drought resistant. The foliage turns a russet color in winter. It is the primary species in most windbreaks.



Two foliage diseases, Cercospora blight and Phomopsis blight, can cause substantial defoliation and kill redcedar if not controlled. Cercospora blight is common and widespread. A third foliage disease, Kabatina blight, can kill branch tips but is not a serious concern. Spider mites occasionally cause damage, and young trees may require protection.





TBNRD's Alex Hasenauer at Lake Seldom Prescribed Burn

## Holdrege is Selected as Site for Prescribed Burn School

Holdrege will host a Prescribed Burn School on Tuesday, February 1, at the Phelps County Ag Center, according to John Ortmann, Prescribed Burn Task Force president. The school will meet from 9 a.m. to 4 p.m., with registration at 8:30 a.m. Admission is free for fire-department members.

There will also be a firefighter evening school at the Axtell fire station on Tuesday, February 1 from 6:30 to 9:00 p.m.

Pre-registration is required to assure meals. To register, call Tri-Basin NRD at 308-995-6688.

Lead instructor at both schools will be Bill Wain, Fire Management Officer from Quivira National Wildlife Refuge in Kansas. Wain will cover goals and objectives for burning, fire behavior, weather factors, burning methods and techniques and burn planning.

He also will discuss the advantages of forming prescribed burn associations, in which community landowners combine in a formal organization to pool labor, equipment and expertise to conduct private-land prescribed fires.

Wain has been instrumental in the increased use of safe prescribed burns in Nebraska and Kansas for over 20 years.

## Nitrogen Reports Due

Nitrogen Management Reports for the 2010 crop year were due December 31, 2010 for producers in Phase 2 and Phase 3 of the Tri-Basin Groundwater Quality Management Area. If you have fields in the Phase 2 or Phase 3 areas and have not turned in your reports yet, please do so as soon as possible. If you need reporting forms, please contact the Tri-Basin NRD office.



## Trees for Newborns

Each year Tri-Basin NRD honors newborns in the district with the gift of a seedling tree. These trees are available to the family of any child born in Gosper, Phelps or Kearney County since the previous tree season (April). You can reserve a baby tree for your newest family member by calling our office at (308) 995-6688 or 1-877-995-6688 or by emailing the baby's name, birthdate, parents' names, address and phone number to [esmith@tribasinnr.org](mailto:esmith@tribasinnr.org). We will send you a postcard in April letting you know when and where to pick up your tree. If you have any questions, please call our office and ask for Esther.

## NRD to Recognize Conservationists, Directors, Staff at Banquet

Tri-Basin NRD will hold its biennial recognition banquet on January 13, 2011 at Cheex Bar & Grill in Holdrege for staff, directors and honored guests.

Three conservation awards will be presented that evening to Tri-Basin NRD producers for their outstanding efforts in conserving our natural resources. Larry Brell of Gosper County will be presented the Soil Conservation Award for his implementation of soil conservation farming practices. The Tree Planter Award will be given to Dr. Tom Smith of Phelps County for his dedication to planting conservation trees. Mosaic of Axtell will be honored with the Wetland Conservation Award for the development of Nature's Mosaic.

Several Tri-Basin NRD staff and directors will also be honored for their years of service to the NRD. Harold D Erickson, who retired from Tri-Basin NRD's board in January 2010, will be honored for his 16 years of service to the District. Patty Abrahamson will also be recognized because she has retired after working for TBRND for 11 years as the Holdrege Field Office Secretary and an office assistant. Directors who will be honored are: Larry Reynolds, 25 years of service; David Olsen, 20 years of service, Dick Helms, 15 years of service; and David Raffety, 15 years of service. General Manager John Thorburn will be honored for 15 years of service to Tri-Basin NRD.

## Electronic Version of Tri-Basin Topics is Available

If you would like to receive a PDF version of Tri-Basin Topics by email, send an email with your request to [nsalisbury@tribasinnr.org](mailto:nsalisbury@tribasinnr.org). We'll take you off the mailing list and send the newsletter to your inbox each quarter. If saving trees isn't enough incentive, consider this: the electronic version of the newsletter is full-color!



# CALENDAR OF EVENTS

(All meetings are at NRD office in Holdrege unless otherwise noted.)

## January

- January 11 .....NRD Board Meeting at 1:30 p.m.\*
- January 13 .....TBNRD Recognition Banquet
- January 17 .....Office closed for Martin Luther King, Jr. Day

## February

- February 1 .....Prescribed Burn School in Holdrege
- February 3 .....Holdrege Water Conference
- February 8 .....NRD Board Meeting at 1:30 p.m.\*
- February 21 .....Office closed for President's Day

## March

- March 8 .....NRD Board Meeting at 1:30 p.m.\*

\* Times are tentative

## CONSERVATION TIP

Put food coloring in your toilet tank. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it can save up to 1,000 gallons of water a month.



## TRI-BASIN NRD BOARD OF DIRECTORS

- Todd Garrelts, Chairman ..... Holdrege, NE
- David Nickel, Vice Chairman ..... Kearney, NE
- Ed Harris, Treasurer ..... Loomis, NE
- Larry Reynolds, Secretary ..... Lexington, NE
- Brian Bergstrom ..... Axtell, NE
- Dick Helms ..... Arapahoe, NE
- Phyllis Johnson ..... Bertrand, NE
- Joe Larson ..... Loomis, NE
- Brad Lundeen ..... Wilcox, NE
- David Nelson ..... Upland, NE
- David Raffety ..... Kearney, NE
- David Olsen ..... Minden, NE
- Ray Winz ..... Holdrege, NE

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## TRI-BASIN NRD STAFF

- John Thorburn ..... General Manager
- Richard Holloway ..... Assistant Manager
- Charles Brooks ..... Land Resources Coordinator
- Carie Lynch ..... Administrative Secretary
- Nolan Little ..... Water Resources Technician
- Alex Hasenauer ..... Land Resources Technician
- Tammy Fahrenbruch ..... Office Manager
- Esther Smith ..... Office Clerk
- Nicole Salisbury ..... Information & Education Coordinator
- Ruth Nielsen ..... Minden Office Secretary
- Lori Hagan ..... Elwood Office Secretary
- Tami Reese ..... Holdrege Office Secretary

A mailing list is maintained and requests to be placed on the list should be sent to the above address. Comments and suggestions may be addressed to the General Manager.

- ◆ Conservation Tree Order Form
- ◆ Prescribed Burn School in Holdrege
- ◆ Holdrege Water Conference Feb. 3

## IN THIS ISSUE

RETURN SERVICE REQUESTED



Non-Profit Permit  
U.S. Postage  
PAID  
Holdrege, NE 68949  
Permit No. 220

# TRI-BASIN NATURAL RESOURCES DISTRICT 2011 HAND PLANT ORDER FORM

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY/STATE/ZIP: \_\_\_\_\_ PHONE: \_\_\_\_\_

ORDERS MUST BE IN MULTIPLES OF 25 at \$15.00 per bundle.

***Deadline for placing orders is April 1, 2011.***

QUANTITY	SPECIES
	<b>CONIFERS</b>
	AUSTRIAN PINE
	REDCEDAR (EASTERN)
	COLORADO BLUE SPRUCE
	PONDEROSA PINE
	<b>BROADLEAFS</b>
	BLACK WALNUT
	BUR OAK
	HACKBERRY
	RED OAK
	WHITE OAK
	<b>SHRUBS</b>
	AMERICAN HAZEL
	AMERICAN PLUM
	BUFFALO BERRY
	COTTONEASTER
	CHOKECHERRY
	LILAC
	SAND CHERRY
	SKUNKBUSH SUMAC
	GOLDEN CURRANT
	<b>Total # of Trees</b>
	<b>Multiply total # of trees x .60</b>
	<b>Mulch x .35/foot</b>
	<b>Subtotal</b>
	<b>Tax (Holdrege 7%, Elwood 5.5%, Minden 6.5%)</b>
	<b>TOTAL AMOUNT DUE/PAID</b>

Tree Pickup will be at: _____ Tri-Basin NRD _____ Minden NRCS _____ Elwood NRCS
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# WHY PLANT A WINDBREAK?

Windbreaks and shelterbelts provide many benefits. Windbreaks planted along field boundaries reduce soil erosion by reducing wind velocity. Shelterbelts planted around farmsteads reduce heating costs in homes and shop buildings. Shelterbelts can protect livestock from blizzards and serve as "living snow fences." Trees and shrubs also provide food, shelter and nesting habitat for many species of birds and mammals.

## NRD TREE & SHRUB PLANTINGS

Contact the NRD Office or your county NRCS for help with determining the type and number of trees and shrubs you need. The technician will make arrangements for the tree order and planting service. The NRD will plant the trees according to the plan.

Trees are planted in the spring as soon as conditions are suitable. The NRD tree planting crew will notify landowners of the approximate date and time of planting.

## SITE PREPARATION

Good site preparation is a key to rapid tree growth and survival. The best site preparation begins the year before the trees are planted. On heavier soils, working the ground to kill competing vegetation is an excellent method of preparing the site. The technician assisting in planning a windbreak or habitat plot can advise you about the type of site preparation needed. The technician can also help you determine if herbicide carryover will be a problem.

## WEED CONTROL

Weed control in the form of plastic mulch is available through the district. This woven material is installed over the trees after planting. Slots are then cut for the trees. Plastic mulch not only eliminates weeds but also helps to preserve soil moisture.

## PRICES

Trees & Shrubs ..... 60¢ each/multiples of 25

## PLANTING SERVICE

Tree planting (no mulch) ..... 50¢/ft

## Trees, tree planting, mulch, and mulch laying

Tilled sites ..... \$ 1.05/ft

Untilled sites ..... \$ 1.10/ft

Drip tape ..... 35¢/ft

Pull-in Charge ..... \$20

Minimum plan charge \$350 per planting

## PLASTIC MULCH

Material Only ..... 35¢ per ft

Stakes ..... 15¢ each

Seedling Tubes ..... \$1.10 each

*Prices are subject to change.*

## PLANTING YOUR OWN TREES

You can order trees and shrubs at the NRD or your local NRCS Office. Orders must be in multiples of 25 per species. We will send you a postcard when your trees arrive.

## DRIP TAPE

Tri-Basin has subsurface "drip tape" available for watering trees planted by the District. The water source could be a portable tank or a hydrant. Check with the TBNRD Land Resource Coordinator for more information.

## COST-SHARE

Tri-Basin NRD offers cost-share funds for tree plantings and plastic mulch installation. You should apply at your county NRCS office before March 1.

All sites must be properly prepared before planting to qualify for cost-share. Reimbursement is made only after full payment is received. The minimum total cost of plantings eligible for cost-share is \$500.

Cost-share may also be available from your county USDA office. Pheasants Forever and Nebraska Game & Parks Commission also offer programs for wildlife habitat improvement. NRCS staff can help you determine which programs have funds available and best suit your needs.

## BILLING ON NRD PLANTINGS

Tri-Basin NRD bills for trees/tree planting service after completion. Full payment is due upon receipt of the billing. Cost-share forms will not be finalized until payment is received at the Tri-Basin or NRCS office.