



Winter 2024

Volume 38, Issue 1

# Tri-Basin Topics

A quarterly publication of Tri-Basin Natural Resources District



## South-Central Water Conference February 1st

The 2024 South-Central Water Conference will be held Thursday, February 1st at the Phelps County Ag Center. Join us at 9:30 a.m. for coffee and donuts. Sessions begin at 10:00 a.m. The conference is free of charge and a lunch by Score One Smokin' will be provided for those attending. The program will conclude around 2:30 p.m. A full agenda for the event will be posted at [www.tribasinnrd.org](http://www.tribasinnrd.org) as soon as it is available.

### Agenda Topics

- Actual Water Consumption in Your Field
- Kingsley Dam
- Water & Nitrogen Efficiency - Producer Panel
- 2024 Weather Outlook
- Water Resources Updates



The conference is hosted by Tri-Basin Natural Resources District, Lower Republican Natural Resources District, Central Nebraska Public Power and Irrigation District, and UNL Extension. It is a joint effort to increase the public's understanding of water-related issues in Nebraska.

Area agri-businesses will display their products and services at the water conference and will have representatives on hand to visit with conference participants.

Tri-Basin NRD's Phase II or Phase III Groundwater Quality Management Area producers who attend the conference are eligible to receive nitrogen management recertification credit if they sign-in when they enter.

## Order Conservation Trees and Shrubs Today!

(See enclosed information)

Contact Tri-Basin NRD or your local NRCS office for information about planting a windbreak or shelterbelt.



## Nitrogen Reports

Nitrogen Management Reports for the 2023 crop year were due December 31, 2023. If you have fields in the Phase II or Phase III areas of the Groundwater Quality Management Area and have not turned in your reports, please do so as soon as possible. If you need forms or help filling them out, contact the TBNRD office.

## Chemigation Renewals

Renewal forms will go out to producers who had active chemigation permits last year. Producers whose chemigation certification has expired will need to attend one of the chemigation training sessions held in February and March or complete the online course. For dates and locations for classes go to [www.tribasinnrd.org](http://www.tribasinnrd.org).

Chemigation renewal permits are due in the Tri-Basin NRD office before **June 1, 2024**.

*"Dedicated to Conservation of our Natural Resources"*

<http://www.tribasinnrd.org>



## Manager's Message

by John Thorburn

Chemigation is the process of applying fertilizer and ag chemicals through a center pivot or subsurface irrigation system. Chemigation is an important innovation in crop management that all center pivot irrigators should utilize. Chemigation enables farmers to spoon-feed fertilizer to their crops. This minimizes potential for fertilizer to leach below the crop root zone into the groundwater aquifer. Fertigation is an especially important tool for farmers in Tri-Basin's Phase 3 Groundwater Management areas, where applications greater than 60 pounds per acre of actual nitrogen are prohibited from September 1 to March 1. It also gives farmers flexibility to apply fungicides, herbicides, and other ag chemicals on fields even after the crops get too mature for application with tractors.

Chemigation is a "best management practice" for crop production, but it must be done safely to prevent contamination of irrigation wells and groundwater supplies. For this reason, state law requires farmers to get application licenses from the state and permits to chemigate from NRDs. NRD technicians regularly inspect chemigation systems to make sure that safety equipment functions properly to protect our groundwater. Chemigation renewal permits are due in the NRD office by June first. If you miss the deadline, your permits will be processed as new for that year. New permits are much more expensive than renewals and must be inspected before they are used, so be sure to make this deadline.

If you have a permit and plan to chemigate, don't wait for NRD staff to check your equipment. Make sure that your mainline check valve closes when your well is shut off and your low-pressure drain and vacuum relief valve operate properly. Also, remember to connect a garden hose at least 20 feet long to the low-pressure drain, to carry any contaminated water away from the well-head. If you want more information about chemigation and the permitting and inspection process, feel free to give us a call at Tri-Basin NRD at (308) 995-6688, or visit our website at [tribasinncrd.org](http://tribasinncrd.org).

Owners of center pivots with electric-powered wells who want to apply fertilizer or agrichemicals through their irrigation equipment need to check whether their



system is fully electrically interlocked. The Nebraska Chemigation Act and associated regulations require that the electrical circuit that powers a chemical injection pump must automatically shut down when the well shuts down.

Some center pivot systems connected to electric-powered wells were not installed with water pressure sensors that shut down a chemical injector pump if a well shuts down for any reason. Without such a sensor, the injector pump could continue to run after the well shuts off and fill the pivot water supply pipeline with chemicals or fertilizer. Then, when the well restarts, the chemicals or fertilizer are overapplied on a small portion of the field. A pressure sensor is not a legally required chemigation safety equipment item, but it is a useful precaution to prevent overapplication of chemicals or fertilizer.

Finally, some farmers have received special "fertilizer-only" permits from Tri-Basin NRD that allow them to fertigate in the vicinity of irrigation canals. Even though you have a permit, you still need to be diligent about not allowing fertilizer to contaminate canal water. Fertilizer can cause algae blooms in canals. Algae blooms clog irrigation intakes and require costly treatment by irrigation district personnel. If you have a fertilizer-only chemigation permit, please shut off your fertigation pump as your pivot crosses a canal or lateral and adhere to the application limitation that you agreed to when you applied for your permit.

Tri-Basin NRD leads the state in chemigation utilization rates. More than half of the 5000 irrigation wells in the district are permitted for chemigation. More than ten percent of all chemigation permits issued in Nebraska are for fields in Tri-Basin NRD. I am very proud of our progressive farmers and their efforts to fertilize their crops as efficiently as possible. This effort must be sustained for the long-term, to keep our farms profitable, and to protect our vital groundwater supplies from contamination.



Left: TBNRD Water Technician, Pat Nott, inspecting chemigation system for Kent Hanson in the district. Right: Chemigation system.



## New Field Office Secretary



Please welcome Lisa Schroeder, she is the new Minden field office secretary. She is ready to assist you when you call or stop in the Minden NRCS office.

Lisa grew up in Burwell and graduated in 2001. Lisa and her husband, Dustin, live in Minden where he works for the city of Minden. They have

two children, Brenna, 20, and Braiden, 18, both are college students.

In her free time, Lisa enjoys cooking, baking, canning, crafts, house projects, and spending time with their family dog, Piper.

Along with a new field office secretary there have been other changes to the staff in the Minden office. Both Amy Dutton and Michael Nielsen have new positions. Here is a list of the Minden staff:

Lisa Berkeypile – Resource Conservationist  
Amy Dutton – Natural Resource Specialist  
Mike Nielsen – Soil Conservation Technician  
Dave Rocker – Surveying Technician  
Lisa Schroeder – District Secretary

## We are Hiring— Integrated Water Program Specialist

Tri-Basin and Central Platte NRDs seek an Integrated Water Program Specialist. This position will work one-on-one with producers. Applicants should send a cover letter, resume and three professional references to [vogt@cpnrd.org](mailto:vogt@cpnrd.org). Go to [tribasinnrd.org](http://tribasinnrd.org) or [CPNRD.org](http://CPNRD.org) for full job description and requirements. Applications will be reviewed January 19.

## TBNRD Trees Honor District Newborns

Tri-Basin NRD offers parents of newborns in the district the gift of a seedling tree. These trees are available to the family of any child born in Gosper, Phelps or Kearney Counties since the previous tree season (March 2023).

Reserve a baby tree by calling the Tri-Basin NRD at 308-995-6688 or email [nmunter@tribasinnrd.org](mailto:nmunter@tribasinnrd.org) your request with the baby's name and birthdate and the parents' names, address, and phone number. We will contact you in April to let you know when and where to pick up your tree. If you have any questions, please call the Tri-Basin and ask for Nate.

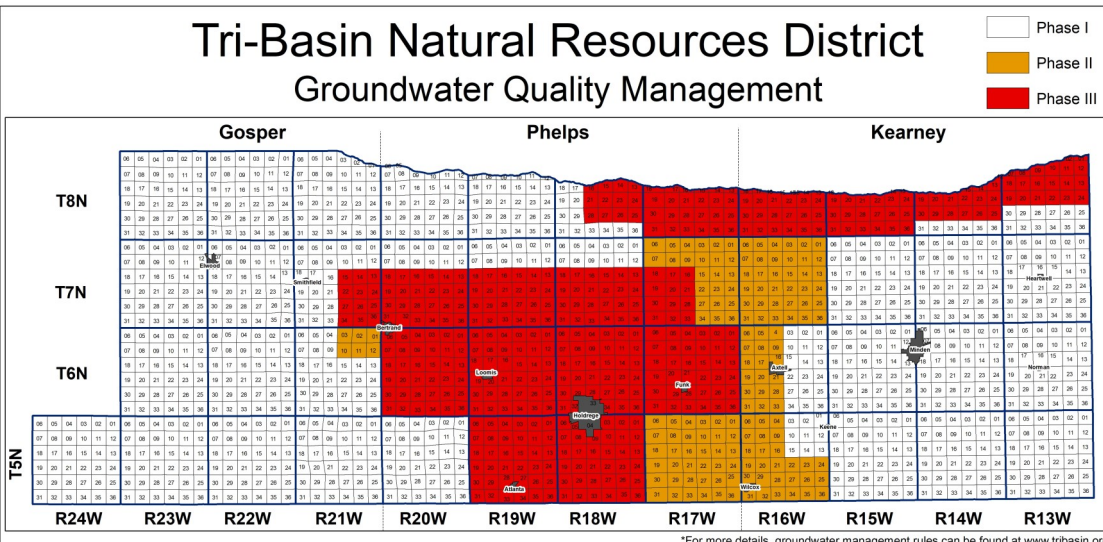


## Nitrogen Management Certification Reminders

The Groundwater Quality Management Areas established by Tri-Basin NRD have allowed district staff to work cooperatively with farmers and agronomists for more than 25 years. These management areas help improve the timeliness, efficiency, and effectiveness of fertilizer application. These efforts have resulted in stable or declining nitrate/nitrogen levels in groundwater supplies in much of the district, safeguarding the quality of our groundwater.

Producers in Phase II and Phase III areas of the Groundwater Quality Management Area must take soil samples this winter and water samples in Summer 2024. Current Nitrogen Management Certification is required.

Producers whose certification has expired will receive notification in January by mail. Training dates have not been set, we will list them on Tri-Basin's website at [www.tribasinnrd.org](http://www.tribasinnrd.org) once they are announced. Attendance at the South-Central Water Conference on February 1st also qualifies for Nitrogen Management Certification. (However, you must sign-in to receive credit.)





Winter 2024

# Tri-Basin Topics

## Tri-Basin Natural Resources District

1723 Burlington St. Holdrege, NE 68949

(308) 995-6688

email: [tribasin@tribasinncrd.org](mailto:tribasin@tribasinncrd.org)

[www.tribasinncrd.org](http://www.tribasinncrd.org)

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Permit No. 220

**RETURN SERVICE REQUESTED**

*Nebraska's NRDs: Protecting Lives, Protecting Property, Protecting the Future*

# Calendar

January 9 ..... NRD Board Meeting, 1:00 p.m.\*

January 15 ..... NRD Closed for Martin Luther King, Jr. Day

February 1 ..... South Central Water Conference, Holdrege

February 15 ..... NRD Board Meeting, 1:00 p.m.\*

February 19 ..... NRD Closed for Presidents' Day

March 12 ..... NRD Board Meeting, 1:30 p.m.\*

April 9 ..... NRD Board Meeting, 7:30 p.m.\*

April 24-25 ..... Water Jamboree, Republican City

April 26 ..... Arbor Day Tree Give Aways, District-wide

\* Times are tentative. All meetings are at TBNRD office in Holdrege unless otherwise noted.

## TRI-BASIN NRD BOARD OF DIRECTORS

Todd Garrelts, Chairman .....	Holdrege
Joe Bilka, Vice Chairman .....	Holdrege
Robin Hinrichs, Secretary .....	Axtell
Jeff Ryan, Treasurer .....	Heartwell
Brian Bergstrom .....	Axtell
Joel Grams .....	Minden
David Grimes .....	Minden
Ed Harris .....	Loomis
Joe Larson .....	Loomis
Bradley Lundeen .....	Wilcox
G. Reed Philips .....	Bertrand
David Raffety .....	Kearney
Larry Reynolds .....	Lexington

## TRI-BASIN NRD STAFF

Dana Christensen .....	Water Resources Technician
Tammy Fahrenbruch .....	Water Programs Coordinator
Lori Hagan .....	Office Clerk
Sasha Hahn .....	Information & Education Coordinator
Nolan Little .....	Water Resources Manager
Carie Lynch .....	Administrative Secretary
Nate Munter .....	Land Resources Coordinator
Patrick Nott .....	Water Resources Technician
Tami Reese .....	Holdrege Office Secretary
Dalton Refior .....	Land Resources Technician
Carolyn Schaaf .....	Elwood Office Secretary
Lisa Schroeder .....	Minden Office Secretary
Esther Smith .....	Office Assistant
John Thorburn .....	General Manager
Jeff VanEperen .....	Water Resources Technician

USDA is an equal opportunity provider, employer, and lender.

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.

**Get Tri-Basin Topics in your inbox instead of your mailbox!**

To request an electronic version of this newsletter, send an email to [shahn@tribasinncrd.org](mailto:shahn@tribasinncrd.org).

# TRI-BASIN NATURAL RESOURCES DISTRICT 2024 HAND PLANT ORDER FORM

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

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

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

ORDERS MUST BE IN MULTIPLES OF 25.

QUANTITY	SPECIES
	<b>CONIFERS</b>
	AUSTRIAN PINE
	COLORADO BLUE SPRUCE
	PONDEROSA PINE
	RED CEDAR (Eastern)
	NORWAY SPRUCE
	<b>BROADLEAFS</b>
	BLACK WALNUT
	BUR OAK
	HACKBERRY
	RED OAK
	SWAMP WHITE OAK
	<b>SHRUBS</b>
	AMERICAN PLUM
	COTONEASTER
	CHOKECHERRY
	ELDERBERRY
	RED OSIER DOGWOOD
	LILAC
	SAND CHERRY
	SKUNKBUSH SUMAC
	<b>Total # of Trees</b>
	<b>Multiply total # of trees x 1.00</b>
	<b>Mulch x .45/foot</b>
	<b>Staples x .15</b>
	<b>Subtotal</b>
	<b>Tax (Holdrege 7%, Minden 7.5%, Elwood 6.5%)</b>
	<b>TOTAL AMOUNT DUE/PAID</b>

**Tree Order Deadline is April 1, 2024.**

## TREES PROTECT LIVESTOCK

- Increase calf survival by 12%
- Minimize winter stress
- Increase feed efficiency
- Increase milk production
- Improved animal health
- Increased forage yield
- Snow control
- Higher weights
- Improved heating efficiency of confinement buildings

## TREES IMPROVE PROPERTY

- Reduce heating/cooling costs
- Increase property value
- Reduce noise and dust

## TREES IMPROVE COMMUNITY

- Lower stress & increase wellbeing
- Improve air & water quality
- Stimulate economic development

## TREES PROTECT WILDLIFE

- Provide habitat and food
- Shelter from bad weather
- Cover from predators

## TREES IMPROVE WATER QUALITY

- Reduce soil erosion
- Stabilize stream banks
- Filter pollutants

## TREES PROTECT CROPS

- Can Increase yields
- Conserve plant moisture
- Reduce wind damage

Tree Pickup will be at: \_\_\_\_\_ Tri-Basin NRD \_\_\_\_\_ Minden NRCS \_\_\_\_\_ Elwood NRCS

# 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 .....	\$1.00 each/multiples of 25
PLANTING SERVICE	
Tree planting (no mulch) .....	\$0.55/ft
Trees, tree planting, mulch and mulch installation .....	\$2.00/ft
Drip tape .....	\$0.30/ft
Drip tape set-up .....	Minimum \$35.00
Pull-in Charge .....	\$55.00
Renovations* .....	\$275.00
Shrub thickets* .....	\$330.00
Minimum 850 foot per planting	
Plastic Mulch (Material Only) .....	\$0.45 per ft
Stakes .....	\$0.15 each
Seedling Tubes .....	\$1.50 each
<b>Prices are subject to change.</b>	
*Contact Tri-Basin NRD for site review.	

## 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. We also have tree spades available to rent.

## 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. Plantings must be a minimum of 850 feet.

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 payments will not be made until payment is received at the Tri-Basin or NRCS office.