

# TRI-BASIN TOPICS

Winter 2005

Volume 19, Issue 1

**“Dedicated to the Conservation of our Natural Resources”**

## NRD Water Users Respond to Survey

**Introduction:** Last October, the Tri-Basin NRD Board of Directors had NRD staff write and distribute a survey that sought NRD constituents’ opinions on water management issues. The survey was included in the last issue of *Tri-Basin Topics*. More than 250 district citizens and landowners filled it out. The survey results follow. Thanks to all citizens and landowners who took the time to respond to our survey. Your opinions provide the board of directors with valuable information that they will use as they develop water management policies for our district.

### 1. Which county do you live in?

Phelps	97 Responses	(38%)
Lincoln	1 Response	(0%)
Kearney	51 Responses	(20%)
York	1 Response	(0%)
Gosper	66 Responses	(26%)
Harlan	6 Responses	(2%)
Buffalo	7 Response	(3%)
Frontier	3 Responses	(1%)
Adams	5 Responses	(2%)
Furnas	3 Responses	(1%)
Franklin	4 Responses	(1%)
Other States	11 Responses	(4%)

### 2. Which of the following categories best describe your situation? (You may circle more than one response)

- A. Landowner directly involved in a farming operation:  
161 Responses (49%)
- B. Landowner NOT directly involved in a farming operation:  
64 Responses (19%)
- C. Tenant/lessee:  
90 Responses (27%)
- D. Agribusiness (banker, crop consultant, land manager, etc.):  
12 Responses (4%)

- E. Other (please specify):  
4 Responses (1%)

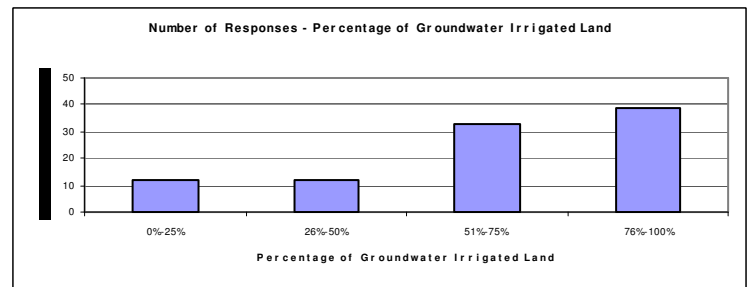
### 3. Do you irrigate or supervise irrigation using groundwater?

- A. YES: 222 Responses (87%)  
B. NO: 32 Responses (59%)

### 4. Do you irrigate or supervise irrigation using surface water (canal water)?

- A. YES: 101 Responses (41%)  
B. NO: 143 Responses (59%)

### 5. If you answered YES to both questions 3 and 4, what is your percentage of groundwater irrigated land? (example, 40%)



### 6. Should Tri-Basin NRD limit groundwater irrigation to insure that our existing groundwater supplies are preserved for future generations?

- A. YES: 147 Responses (67%)  
B. NO: 73 Responses (33%)

Continued on page 5...



## Managers Message

By: John Thorburn

There's been a lot of discussion in Nebraska lately about drilling wells for irrigation. Farmers are prohib-

ited from drilling new wells in some parts of the state, due to either declining groundwater levels or concerns about groundwater use depleting stream-flows.

The first wells in Nebraska were hand-dug to provide water for pioneers and their livestock. Digging wells was a grueling, dangerous task. Some early municipal and farmstead wells were dug to depths as great as 300 feet, but the primitive pumps available then didn't provide enough water to make irrigation from deep wells practical.

The first irrigation wells in Nebraska were dug in the Platte valley in the early 1900s. The high water table meant that wells were only ten to thirty feet deep. The well casings were usually constructed of brick or wood. Pumps were either centrifugal "pitless" pumps or rocker piston pumps of the type that are used in oilfields. The pumps were powered by stationary gasoline engines, which required constant maintenance and attention. Once the water was pumped above ground, it flowed to fields in open ditches. The ditches were cut open at regular intervals to allow water to flow down the furrows of a field.

The Egyptians first used open ditch irrigation thousands of years ago. Farmers in the early 1990s used essentially the same inefficient, labor-intensive method that watered crops along the Nile. Open-ditch irrigation is only workable on ground that is nearly level. The limitations of the open-ditch method and the inability of early pumps to lift water further than about thirty feet restricted groundwater irrigation to the Platte and other river valleys through the 1930s.

After World War II, a series of technological advances combined to make groundwater irrigation possible in a wider variety of terrain. Turbine pumps, developed by Western Land Roller Company in Hastings, were capable of lifting water from great depths. Rotary well-drilling equipment drilled wells deeper and faster than well diggers ever imagined

possible. Rural public power districts brought electricity to farms, enabling farmers to use electric motors to power their water pumps. Powerful, reliable and efficient diesel engines also came into widespread use as irrigation power sources. Earth-moving equipment leveled land to improve the flow of water. Gated aluminum pipe replaced open ditches as a means of water delivery.

A great leap forward in irrigation technology was made when

Frank Zybach built the first center-pivot irrigation system on his farm near Strasburg, Colorado in 1954. Zybach was a better inventor than he was a businessman. After trying for a few years to manufacture and market his new invention, Zybach and his partner sold their patent to Valley Manufacturing



Company, which is still a leading manufacturer of center-pivot systems today. Center-pivots enable farmers to irrigate sandy soils and rolling, hilly land that are unsuitable for furrow irrigation. The widespread adoption of center pivots led to the irrigation development boom of the 1970s. It is estimated that more than 50,000 center pivots are in use in Nebraska today, more than in any other state.

Modern technology has made it possible for farmers to pump vast quantities of water to irrigate thirsty crops, but no technology exists to make more water. Benjamin Franklin said "when the well is dry, we learn the worth of water." If we aren't wise enough to manage and conserve the groundwater supplies that God has blessed us with, the pumps and pivots that power our economy today will stand as rusting reminders to future generations of our inability to deal with the consequences of the technology that we created.

## Tri-Basin NRD Recognition Banquet

Tri-Basin Natural Resources District (NRD) held its biennial recognition banquet on January 18, 2005 at Club 183 in Holdrege. Neil Carlson of Axtell won the Wetland Stewardship Award, George Gruber of Elwood was presented with the Soil Stewardship Award, and G. Reed Philips of Bertrand received the Tree Planter Award. These individuals were commended for the contributions they have made toward protecting and enhancing our natural resources.

Years of service awards were given to directors Phyllis Johnson of Bertrand (10 years of service), Dick Helms of Arapahoe (10 years of service), Harold D. Erickson of Holdrege (10 years of service), David Nickel of Kearney (15 years of service), Larry Reynolds of Lexington (20 years of service), and Gary Lindstrom of Wilcox (25 years of service). Mary Stauffer, NRD secretary in the Elwood field office received an award for 20 years of service. Bruce Anderbery with Accent Video Productions provided the entertainment for the evening.



George Gruber

## Nitrogen Management Classes

*February 8, 2005	Holdrege Ag Center	9:00 A.M.
*February 8, 2005	Holdrege Ag Center	1:00 P.M.
February 17, 2005	Tri-Basin NRD	7:00 P.M.
February 28, 2005	Axtell Community Bldg	1:00 P.M.
*March 3, 2005	Holdrege Ag Center	1:00 P.M.
*March 3, 2005	Holdrege Ag Center	7:00 P.M.

\*Denotes Pesticide Recertification Meeting also

## Arbor Day April 29— Order Your Trees Now!

Tree orders are being taken at Tri-Basin NRD or your local NRCS office until March 24, 2005. Orders must be in multiples of 25 per species. A postcard will be sent to you when your trees arrive.

Tri-Basin NRD offers cost-share funds for tree plantings and plastic mulch installation. Cost-share applications must be in before March 1st. 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.

A tree order form is on the following page.

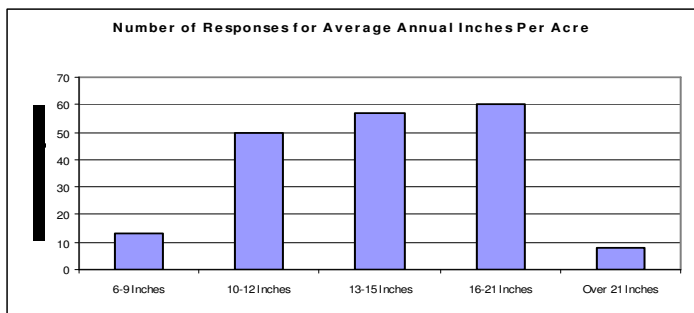
### Cost-share Notes

The cost-share rate on flow meters in the Platte and Little Blue River Basins is now 25% with a maximum of \$300 per landowner per year.

Republican Basin flowmeter cost-share program rate is still 50% of material and labor costs, up to \$600. NO time extensions will be offered to Republican Basin cost-share applications that expire on or after July 1, 2005. NO Republican cost-share applications will be approved after September 1, 2005. ALL cost-share applications in the Republican Basin submitted after June 30, 2005 will have an expiration date of December 31, 2005. ALL APPLICATIONS NEED TO BE COMPLETED AND RETURNED TO THE NRCS OFFICE FOR PROCESSING BY DECEMBER 31, 2005 FOR THE REPUBLICAN BASIN.



**7. What is the average annual amount of water (inches per acre) that you use in irrigated crop production? 45 Total Responses (acre-inches per acre per year)**



**8. If Tri-Basin NRD needs to limit groundwater irrigation to sustain existing groundwater supplies, which method would you prefer that we use to allocate (divide) available supplies?**

- A. "First in time, first in right" (older wells get more water than newer wells): 130 Responses (54%)
- B. "Share and share alike" (all wells get equal amounts of water): 83 Responses (34%)
- C. Other: 30 Responses (12%)

**COMMENTS RECEIVED ON THE SURVEY:**

—If wells are allowed to be drilled to replace surface water then they should be treated like the first come first in right going back to when the surface water right was given. The surface water user has helped build the water mound below us and should have a right to it before a groundwater user who just drilled a new well to irrigate new ground. The last 5 years have gotten out of control in allowing some of this pasture ground to be broken out and new wells drilled to service it.

—This sounds communistic. I believe any one that put in a well 20 or 30 years ago should have first water rights

—Wells on Central's water shouldn't get near as much with access to both

—Let us have x inches of water for 5 years. If we run out on year five, it'll be dry land for one year. Put moratorium on immediately with no grace period.

—TBNRD should limit groundwater if the groundwater reaches levels that could jeopardize future use of irr. wells.

— The certified acres to date is the limitation for the future

— If a well was established within the law, the investment shouldn't be jeopardized by later rulings

— A pivot can just run faster and put on fewer inches. You can't run pipe faster. It takes as long as it takes unless I change row in 8 hours instead of 12 whether they are through or not.

—Look into irrigation of Class I and II soils not grasslands torn up for gravity production purposes where we (tax payers) spend \$1,000's of dollars in renovation costs later.

— To be honest, this groundwater policy was not done in a very common sense manner. It appears it was thrown

together as quickly as possible and not thought through,

just to please the Kansas lawsuit people. Rules seem to change from week to week and office to office. Hundreds and hundreds of wells have been drilled that would have not been for several years or maybe never, which defeats the purpose of the water saving program. The farmers have had basically zero input to whether or not they would go along with the never-ending demands. We are expected to adopt all programs, which cost us money, but cost share does help some. From talking to other farmers many are about to say enough is enough.

—Not sure just how to enforce, and what the supply issues will be (take your time to decide this issue, the best at making this decision would be for the State to make the decision). Tri-Basin NRD is to be complimented on the method of making the decisions facing them. You seem to have studied and been deliberate in your decisions.



Steve Nelson

Steve Nelson began the New Year as the newest employee at Tri-Basin NRD. Steve grew up in Odessa and attended high school and college in Kearney. He graduated with a B.S. in Agri-business and will work for Tri-Basin as a Land Resource Technician. Steve is a member of St. James Catholic Church in Kearney and a member of the Western Wrangler Horse Club. His hobbies include hunting and horseback riding.

**Chemigation Training 2005**

<b>February 2</b>	<b>Elwood</b>	<b>Elwood Fairgrounds</b>	<b>9:00 a.m.</b>
<b>February 10</b>	<b>Kearney</b>	<b>Kearney Fairgrounds</b>	<b>1:00 p.m.</b>
<b>February 14</b>	<b>Minden</b>	<b>Minden Fairgrounds</b>	<b>9:00 a.m.</b>
<b>March 3</b>	<b>Holdrege</b>	<b>Holdrege Ag Center</b>	<b>9:00 a.m.</b>



Nicole Salisbury

— Give all wells in the state equal amounts of water

— I like share alike, except wells put on highly erodible land especially in the last 5 years

Nicole Salisbury started working as an Office Assistant at Tri-Basin NRD at the end of September 2004.

Originally from Loup City, Nicole now resides on the outskirts of Holdrege with her husband, Chris, and their two children, Emily and Ryan.

Nicole graduated from Nebraska Wesleyan University with a B.A. in Communication and Writing. Currently, Nicole is an active member of First United Methodist

# CALENDAR OF EVENTS

(All meetings are at NRD office in Phelps County Ag Center unless otherwise noted.)

## February

- February 3 - Elwood Water Conference
- February 8 - NRD Board Meeting at 1:30 p.m.\*
- February 21 - President's Day (office closed)

## March

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

## April

- April 12 - NRD Board Meeting at 1:30 p.m.\*
- April 13 - Rainwater Basin Conservation Day
- April 27-28 - Water Jamboree

\* Times are tentative

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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  
Roger David ..... Conservation Technician  
Steve Nelson ..... Land Resource Technician  
Tammy Fahrenbruch ..... Inf. & Education Coordinator/Office Asst.  
Esther Smith ..... Office Clerk  
Shennon Helms ..... Inf. & Education Assistant  
Nicole Salisbury ..... Office Assistant  
Marlene Shearer ..... Minden Office Secretary  
Mary Stauffer ..... Elwood Office Secretary  
Patty Abrahamson ..... 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.

### TRI-BASIN NRD BOARD OF DIRECTORS

Brad Lundeen, Chairman Wilcox, NE	Gary Lindstrom Wilcox, NE
Phyllis Johnson, Vice Chairman Bertrand, NE	Ed Harris Loomis, NE
Todd Garrelts, Treasurer Holdrege, NE	David Nickel Kearney, NE
David Olson, Secretary Minden, NE	David Raffety Kearney, NE
David Nelson Upland, NE	Larry Reynolds Lexington, NE
Harold D. Erickson Holdrege, NE	Ray Winz Holdrege, NE
Dick Helms Arapahoe, NE	

## WATER CONSERVATION TIP

- Conserve water because it is the right thing to do. Don't waste water just because someone else is footing the bill, such as when you are staying at a hotel.

\*Water User Survey Results  
\*Nitrogen Management  
Class Dates  
\*Tree Order Form  
\*Chemigation Training Dates

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*Natural Resources District*



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