

# Tri-Basin Irrigator

Volume 16, Issue 1

May 5, 2016

## PROGRAM INFORMATION

### *EQIP, CSP, AND ACEP:*

**EQIP** – FUNDS AVAILABLE FOR 2016 CONTRACTS HAVE ALREADY BEEN APPROVED OR OBLIGATED IN THE TRI-BASIN NRD. NO MORE FUNDS ARE AVAILABLE. SHOULD SLIPPAGE FUNDS ARRIVE FROM OTHER AREAS, THEN WE CAN POSSIBLY FUND ADDITIONAL CONTRACTS. HAVE TO WAIT AND SEE.

**CSP** – WE ARE CURRENTLY VISITING WITH PRODUCERS AND RANKING THE NEW 2016 APPLICATIONS.

**NSWCP:** NEW MONEY COMES JULY 1<sup>ST</sup>. APPLICATIONS FOR COST-SHARE CAN BE TAKEN AT YOUR LOCAL NRCS OFFICE AND MUST BE SIGNED BY THE OWNER. APPLICATIONS MUST BE APPROVED PRIOR TO STARTING ANY INSTALLATION WORK. IN THE TRI-BASIN NRD, IRRIGATION APPLICATIONS ARE REVIEWED FOR APPROVAL FOUR TIMES A YEAR, SEPTEMBER, DECEMBER, FEBRUARY, AND MAY. THE EXCEPTION IS APPLICATIONS FOR FLOW METERS AND SOIL MOISTURE SENSORS. THESE TWO IRRIGATION PRACTICE APPLICATIONS AND NON-IRRIGATION APPLICATIONS ARE REVIEWED FOR APPROVAL MONTHLY. THE TRI-BASIN NRD BOARD MEETS ON THE SECOND TUESDAYS OF EACH MONTH.

**ENERGY EFFICIENCY GRANT:** SIGN-UP DEADLINE FOR 2016 FUNDS HAS PASSED FOR IMPROVEMENTS TO IRRIGATION SYSTEMS SUCH AS CONVERTING GRAVITY SYSTEMS TO PIVOTS OR SDI. APPROVALS WILL TAKE PLACE LATER THIS SUMMER. IF YOU HAVE A COMPLETED APPLICATION ON FILE AT YOUR RURAL DEVELOPMENT OFFICE, YOU CAN START YOUR PROJECT IF YOU WANT TO. IF NOT APPROVED BY SEPTEMBER 30, 2016, THEN YOU WILL NOT RECEIVE ANY FUNDING ASSISTANCE. FOR MORE INFORMATION CONTACT RURAL DEVELOPMENT AT THE KEARNEY USDA SERVICE CENTER OR AT 308-237-3118, EXT. 4.

## CALENDAR OF EVENTS

MAY 8: MOTHER'S DAY

MAY 17: TBNRD BOARD MEETING 7:30 PM

MAY 30: MEMORIAL DAY – GOV'T OFFICES CLOSED

JUNE 6: CNPPID BOARD OF DIRECTORS MEETING 9 AM

### *New Extension Educator*

I would like to introduce the new Extension Educator located here in Holdrege. His name is Todd Whitney. He started his duties this past winter. His accountability region covers Phelps, Gosper, Harlan, and Furnas Counties. His focus is on cropping systems, soil nutrients, manure management, and water quality. Some of you may have already met him at the pesticide and chemigation recertification meetings. Welcome Todd!!!



## CURTIS'S COLUMN



### **Tri-Basin Irrigator: Underway for 2016!!!:**

The Tri-Basin Irrigator has arrived for another season. Welcome to those of you getting this newsletter for the first time! My name is Curtis Scheele. I am the Water Management Specialist with the NRCS covering Gosper, Phelps, and Kearney counties. My office is located in Holdrege. See page 4 for my contact information.

The goal of this newsletter is to provide you with irrigation and other related information across the Tri-Basin NRD. Hopefully, you will benefit from the information provided. It will be sent bi-weekly during the crop season.

Archived copies from 2009 to present are available on the Tri-Basin NRD's website at [http://tribasinnrd.org/tb\\_irrigator.html](http://tribasinnrd.org/tb_irrigator.html).



**Stop slack'in & start work'in!  
It's Irrigator time!**

**Tri-Basin Irrigator via EMAIL**  
**saves paper and lets you be one click away**  
**from the various links.**

**If you would be willing to receive this newsletter via email, please provide me with your email address. You can call me at 308-995-6121, Ext. 3, call your local NRCS office (see contact info. on page 4), or you can email me at [curtis.scheele@ne.usda.gov](mailto:curtis.scheele@ne.usda.gov).**

## **RENEW your SAM Registration OR find yourself in contract violation!!!**

Those of you who have EQIP, CSP, or other contracts with NRCS, you are probably familiar with the SAM registration. In the past some have expired and were then renewed prior to payments, etc. It's been pretty laid back. Well, that is no longer the case. After going through a SAM review, from now on, any entities with a Tax ID Number getting paid from NRCS **MUST** maintain a valid SAM registration under contract. That means if you allow SAM to expire, you are in contract violation and would pay back all funds received plus penalties. This is written in the appendix which each contract holder has signed.

I will mention the expiration date is like a revolving door. It never remains the same date. Each time you renew your SAM, the expiration date is one year from that date. So if you have an annual reminder on your calendar to renew SAM, that will not work. You will have to schedule each year based on your renewal date.

I know farming gets busy and these types of things can easily be overlooked. Therefore, I am going to harp on this as I don't want to see anyone get into contract violation because of missing an expiration date. However, it is ultimately your responsibility to keep SAM updated and your contract in compliance.



**75<sup>th</sup> Anniversary of Kingsley Dam:**

It is a summer of celebration at the Central District; 75 years since the completion of Kingsley Dam and the great benefits it gives to the Platte Valley and Kearney, Phelps, Gosper, Dawson, Lincoln and Keith counties.

Homegrown Tri-County visionaries; George Kingsley, C.W. McConaughy and many others spent decades moving their dream of a new water source forward and in 1936, construction of the Kingsley Dam began. It was dedicated on July 22, 1941—the second largest earthen dam in the world—built with behemoth machines, five years labor and 1,100 men. With the water holding capacity of the Wyoming Reclamation reservoirs and the newly formed Lake McConaughy in place, the annual mountain snowmelt that once brought torrential spring flooding and then a parched and empty summer streambed had been tamed and ag commerce in the valley began to take root.

It is good to remember the life changing benefits Kingsley Dam and the Central District has brought to generations of families of the Tri-County area; abundant water for irrigation, hydro-power to energize high-capacity irrigation wells, recharge water to the aquifers, a series of lakes that changed the quantity and quality of wildlife habitat and public recreation for all time and a sound base for an agricultural based regional economy.

Please mark your calendars to join us at Lake McConaughy for the 75<sup>th</sup> Anniversary celebration of Kingsley Dam on July 22<sup>nd</sup> and 23<sup>rd</sup>. Planning is underway for the large event by the Ogallala and Keith County Chamber of Commerce and the Keith County Visitors Bureau. It's shaping up to be a great history lesson and family getaway weekend.

**TRI-BASIN NRD NEWS**



**Chemigation Permit Renewals Due June 1:**

Chemigation, the practice of applying agricultural products such as fertilizers, herbicides, and insecticides through a pivot irrigation system, can be a highly effective means of chemical or fertilizer application.

By state law, anyone who wants to apply fertilizer or ag chemicals through their irrigation system needs to apply for a chemigation permit for the 2016 season. Chemigation renewal forms have been sent to producers and are due, along with payment, in the Tri-Basin NRD office by June 1, 2016. Renewal permits are \$15 each.

Landowners and operators should contact Tri-Basin NRD toll-free at 1-877-995-6688 regarding new chemigation permits. New permits are \$50 each. All newly permitted chemigation systems must be inspected before use. A person who is certified as a chemigation applicator must supervise injection of fertilizer and ag chemicals in irrigation water. If a chemigation system crosses an open waterway, such as an irrigation canal, an additional form must be completed before the permit can be approved.

NRD staff do routine inspections on chemigation systems from June until August. Routine inspections are required every three years. If your system is due for an inspection, you will receive a postcard this summer. Routine inspections must be completed for permits to be eligible for renewal the following year.

A more detailed explanation of the chemigation permitting process is available on our website at [www.tribasinnrdr.org](http://www.tribasinnrdr.org), under the Programs & Services tab.



**New Irrigation Scheduling App - FREE!:**

A new irrigation decision-making tool is now available free-of-charge for corn and soybean producers. The real-time CornSoyWater App was developed by Haishun Yang, James Han and Jim Specht, Nebraska Extension specialists, to assist producers with making irrigation decisions.

This Extension online prediction tool can be downloaded onto your computer or smartphone from [cornsoywater.unl.edu](http://cornsoywater.unl.edu). Then, after loading your site-specific field(s) information with free GIS software; real-time irrigation timing can be determined using crop stage; stage-based irrigation threshold; amount of crop-available water in the soil root zone; and the possibility of crop water stress for both corn and soybean fields. These predictions can then be applied forward the next three days.

CornSoyWater uses the Nebraska Extension crop simulation models (Hybrid-Maize model corn and SoySim for soybeans). Using this program, producers can receive up-to-date irrigation need predictions without traveling to the fields. This App automatically determines the weather station closest to the field in the weather station network and the soil texture for the field. Then, each time the user logs in and selects a field, the program will make irrigation need predictions based upon current weather data and crop growth / soil moisture conditions for the selected field(s). When the user irrigates the field and/or makes adjustments for rainfall variations, the irrigator follows up by typing the irrigation date and amount into the program. Then, a new irrigation prediction can be generated for the next three days.

**Pocket Gopher and Mole Control:**

Pocket gophers can be a nuisance in alfalfa, pastures and row crop fields. Proper control begins with correctly identifying which pest is creating mounds or tunnels in your fields. Moles cause ridged or upheaved soil / mounds with shallow tunnels under the soil surface. In contrast, pocket gophers form larger fan, kidney or tear shaped design mounds. Gopher lateral tunnels may be 5" to 8" deep; but they usually connect two lateral tunnels at a 45 degree angle to their larger main tunnel which is likely 12" to 14" deep.

Both gophers and moles may be controlled using traps although each rodent type requires a different style of trap. For pocket gophers, traps should be placed (tines first) into the entrance of the deeper main tunnel. Traps should be staked with a wire or light cable extended to the soil surface to prevent the rodent from chewing through twine or plastic string. Then, stake traps to the surface using wire surveyors marking flags.

Toxicant baits are labelled for controlling both moles and pocket gophers. Since moles primarily feed on earthworms and nightcrawlers, grain-based 2% zinc phosphide pellets do not work as well controlling moles. Therefore, worm-shaped baits (bromethalin toxins) dropped in runways provide better control.

When soil conditions are dry, the 2% zinc phosphide grain baits can work well for pocket gopher control. The key is keeping this bait dry and not covered up the baits in tunnels. For wet conditions, the waxed or paraffin moisture-proof bait blocks with chlorphacinone or diphacinone toxins work well. Fumigants are labelled for pocket gophers but require a fumigant management plan and nitrile protection gloves.

Stephen Vantassel's, Nebraska Extension Wildlife, free training YouTube "How to Control Pocket Gophers" url is: <https://www.youtube.com/watch?v=eldpMmfoQVw>.

**Climate:**

See link on page 4 under "Websites of Interest"

## NAWMN CROP ET INFORMATION

Additional Information and other ET resources can be found at websites listed under "ET Information Sites" below.

$$\text{Inches of Crop Water Use (ET)} = \text{Evaporation} \times K_c$$

| Crop Coefficients (K <sub>c</sub> ) |                |                    |                |
|-------------------------------------|----------------|--------------------|----------------|
| Corn                                |                | Soybeans           |                |
| Stage                               | K <sub>c</sub> | Stage              | K <sub>c</sub> |
| 2 leaf                              | 0.10           | Cotyledon (VC)     | 0.10           |
| 4 leaf                              | 0.18           | 1st Node (V1)      | 0.20           |
| 6 leaf                              | 0.35           | 2nd Node (V2)      | 0.40           |
| 8 leaf                              | 0.51           | 3rd Node (V3)      | 0.60           |
| 10 leaf                             | 0.69           | Beg. Bloom (R1)    | 0.90           |
| 12 leaf                             | 0.88           | Full Bloom (R2)    | 1.00           |
| 14 leaf                             | 1.01           | Beg. Pod (R3)      | 1.10           |
| 16 leaf                             | 1.10           | Full Pod (R4)      | 1.10           |
| Silk – Beg. Dent                    | 1.10           | Beg. Seed (R5)     | 1.10           |
| ¼ Milk Line                         | 1.04           | Full Seed (R6)     | 1.10           |
| Full Dent (½ Milk)                  | 0.98           | Yellow Leaf (R6.5) | 1.00           |
| ¾ Milk Line                         | 0.79           | Beg. Mat. (R7)     | 0.90           |
| Black Layer                         | 0.60           | Full Mat. (R8)     | 0.20           |
| Full Maturity                       | 0.10           | Mature             | 0.10           |

### CROP STAGE INFORMATION

**Corn (Planted to Emergence stage):**

Avg. daily water use from April 25 – May 1 was 0.00"-0.00".

**Soybeans (Not Planted):**

Avg. daily water use from April 25 – May 1 was 0.00"-0.00".

April 25-May 1 (17 of 17 NAWMN sites reporting): Average weekly rainfall was NA (range NA to NA). Average weekly ET for corn was NA and for soybeans was NA.

### ET INFORMATION SITES

**NAWMN Sites:**

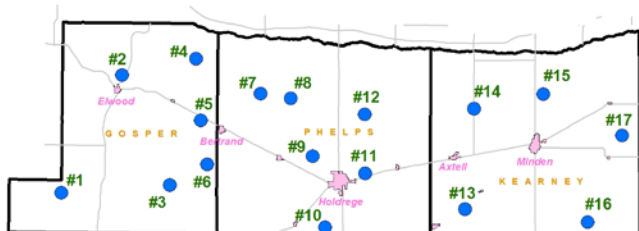
<http://www.cnppid.com/news-info/weatheret-data/nebraska-agricultural-water-management-network/>  
[http://elkhorn.unl.edu/ETGage/xml/NE\\_counties\\_2.jsp](http://elkhorn.unl.edu/ETGage/xml/NE_counties_2.jsp)

**CropWatch:** <http://cropwatch.unl.edu/gdd-etdata>

**CNPPID:** <http://www.cnppid.com/news-info/weatheret-data/>

**Water Use Hotline:** 1-800-993-2507

| Site | Apr 18 – Apr 24 |      | Apr 25 – May 1 |      |
|------|-----------------|------|----------------|------|
|      | Evaporation     | Rain | Evaporation    | Rain |
| 1    | NA              | NA   | NA             | NA   |
| 2    | NA              | NA   | NA             | NA   |
| 3    | NA              | NA   | NA             | NA   |
| 4    | NA              | NA   | NA             | NA   |
| 5    | NA              | NA   | NA             | NA   |
| 6    | NA              | NA   | NA             | NA   |
| 7    | NA              | NA   | NA             | NA   |
| 8    | NA              | NA   | NA             | NA   |
| 9    | NA              | NA   | NA             | NA   |
| 10   | NA              | NA   | NA             | NA   |
| 11   | NA              | NA   | NA             | NA   |
| 12   | NA              | NA   | NA             | NA   |
| 13   | NA              | NA   | NA             | NA   |
| 14   | NA              | NA   | NA             | NA   |
| 15   | NA              | NA   | NA             | NA   |
| 16   | NA              | NA   | NA             | NA   |
| 17   | NA              | NA   | NA             | NA   |



**2016 Map of NAWMN Sites across the Tri-Basin NRD.**

| Corn Stage    |            | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| V2            | 2 Leaves   | Leaf stage is defined by number of leaves with visible collars. The collar is a discolored line where the leaf meets the stalk. This line circles the stalk. <b>TIP:</b> Mark the 6th leaf or a higher leaf by cutting a notch in it or some other way so as to know that leaf number. Reason is the lower leaves will be lost as the plant develops. Flag or somehow mark the plant in the field as a reference plant when determining later leaf (vegetative) stages. |
| V4            | 4 Leaves   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| V6            | 6 Leaves   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Soybean Stage |            | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| VC            | Cotyledon  | Shortly after emergence. Cotyledons and unifoliate leaves are unfolded. (1 node)                                                                                                                                                                                                                                                                                                                                                                                        |
| V1            | First Node | One trifoliate leaf has 3 leaflets. V1 is the first trifoliate leaf with unrolled or unfolded leaflets. Leaflet edges are no longer touching. (2 nodes = 1 unifoliate + 1 trifoliate)                                                                                                                                                                                                                                                                                   |

## LAKE AND RIVER LEVELS

CNPPID Reservoir Elevation and Platte River Flow data listed below and other locations can be found on CNPPID's website at [http://www.cnppid.com/wp-content/uploads/2016/05/WPelevation\\_flows.html](http://www.cnppid.com/wp-content/uploads/2016/05/WPelevation_flows.html).

|                                                 | May 5, 2016,<br>8:00 AM | 1 Year Ago |
|-------------------------------------------------|-------------------------|------------|
| Capacity of Lake McConaughy                     | 87.0%                   | 76.0%      |
| Inflows to Lake McConaughy                      | 4000 cfs                | 854 cfs    |
| Flows on the South Platte River at North Platte | NA cfs                  | 587 cfs    |

*Loving relationships are a family's best protection against the challenges of the world.*

- Bernie Wiebe

## WEBSITES OF INTEREST

Climate [aqclimatenebraska.weebly.com](http://aqclimatenebraska.weebly.com)  
 NRCS Nebraska [www.ne.nrcs.usda.gov](http://www.ne.nrcs.usda.gov)  
 Central Irrigation District [www.cnppid.com](http://www.cnppid.com)  
 TBNRD Home Page [tribasinncrd.org](http://tribasinncrd.org)  
 Farm Service Agency [www.fsa.usda.gov](http://www.fsa.usda.gov)  
 UNL Cropwatch [cropwatch.unl.edu](http://cropwatch.unl.edu)  
 UNL Extension <http://extensionpubs.unl.edu/>  
 K-State SDI Website [www.ksre.ksu.edu/sdi](http://www.ksre.ksu.edu/sdi)  
 No-till On The Plains [www.notill.org](http://www.notill.org)

## RAINFALL

Rainfall amounts listed below and other locations come from NeRAIN which can be found at website <http://nerain.dnr.ne.gov/NeRAIN/docs/report.asp>.

| Location:            | May 1 – May 4 | May 1 – May 4 |
|----------------------|---------------|---------------|
| Arapahoe 6.9 NW:     | NA            | NA            |
| Bertrand 6.1 mi. SE: | 0.22          | 0.22          |
| Funk 4.1 mi. NNE:    | NA            | NA            |
| Minden 0.855 mi. W:  | NA            | NA            |
| Minden 8.8 mi. ESE:  | 0.12          | 0.12          |

Average Rain for May in Holdrege = 4.06 Inches

April Rain in Holdrege = 10.41 Inches / Average = 2.46

\*\*\* If you wish to receive this newsletter via e-mail, or have any questions, comments or ideas, feel free to contact Curtis Scheele at the NRCS office in Holdrege or you can email him at [curtis.scheele@ne.usda.gov](mailto:curtis.scheele@ne.usda.gov). \*\*\*

## USDA - Natural Resources Conservation Service



1609 Burlington Street  
 PO Box 798  
 Holdrege, NE 68949-0798  
 308-995-6121, Ext. 3

309 Smith Street  
 PO Box 41  
 Elwood, NE 68937-0041  
 308-785-3307, Ext. 3

1005 South Brown Street  
 Minden, NE 68959-2601  
 308-832-1895, Ext. 3

## Central Nebraska Public Power & Irrigation District



415 Lincoln Street  
 PO Box 740  
 Holdrege, NE 68949  
 308-995-8601

## Tri-Basin Natural Resources District



1723 Burlington Street  
 Holdrege, NE 68949  
 308-955-6688

## Nebraska Extension

1308 2<sup>nd</sup> Street  
 Holdrege, NE 68949  
 308-995-4222

PO Box 146  
 Elwood, NE 68937  
 308-785-2390

424 North Colorado  
 PO Box 31  
 Minden, NE 68959  
 308-832-0645

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