

Tri-Basin Irrigator

Volume 22, Issue 1

May 12, 2022

PROGRAM INFORMATION

EQIP: INITIAL FUNDS FOR 2022 ARE CURRENTLY BEING WRITTEN AND OBLIGATED INTO CONTRACTS. AFTER MAY 27TH, INITIAL UNUSED FUNDS WILL BE REDISTRIBUTED. **SIGNUP NOW FOR 2023 EQIP FUNDS.**

CSP: 2022 APPLICATIONS WILL BE PRE-APPROVED SHORTLY. PRE-APPROVED APPLICANTS WILL BE NOTIFIED TO START THE CONTRACT WRITING PROCESS. **SIGN UP NOW FOR 2023 CSP FUNDS.**

NSWCP: NSWCP FUNDS ARE APPROVED MONTHLY FOR FLOW METER ONLY AND SOIL MOISTURE SENSOR APPLICATIONS. ALL OTHER IRRIGATION APPLICATIONS FOR UNDERGROUND PIPE, SURGE VALVES, ETC. ARE REVIEWED FOR FUNDING 4 TIMES A YEAR, SEPTEMBER, DECEMBER, FEBRUARY, AND MAY (FOR SLIPPAGE). **NEW FUNDS COME JULY 1ST SO GET YOUR IRRIGATION APPLICATIONS IN BY AUGUST 31ST IN ORDER TO HAVE FIRST CHANCE AT THE NEW FUNDS IN SEPTEMBER. APPLICATIONS MUST BE SIGNED BY THE OWNER. INSTALLATION WORK CANNOT BE STARTED UNTIL APPROVED. - AS A SIDE NOTE, ALL NON-IRRIGATION APPLICATIONS ARE APPROVED MONTHLY.**

ENERGY EFFICIENCY GRANT: SIGN-UP DEADLINE FOR 2022 FUNDS HAS PASSED FOR IMPROVEMENTS TO IRRIGATION SYSTEMS SUCH AS CONVERTING GRAVITY SYSTEMS TO PIVOTS OR SDI, AND NATURAL GAS/PROPANE/DIESEL ENGINES TO ELECTRIC MOTORS, WELL REBOWLS, ETC. APPROVALS WILL TAKE PLACE THIS SUMMER. IF YOU HAVE A COMPLETED APPLICATION ON FILE AT YOUR RURAL DEVELOPMENT OFFICE, YOU CAN START YOUR PROJECT IF YOU WANT TO, YOU ARE JUST TAKING THE RISK OF NOT BEING FUNDED. IF NOT APPROVED BY SEPTEMBER 30, 2022, THEN YOU WILL NOT RECEIVE ANY FUNDING ASSISTANCE. **NEXT SIGNUP DEADLINE WILL BE OCTOBER 31, 2022 FOR 2023 FUNDING. RURAL DEVELOPMENT IS ALREADY ACCEPTING APPLICATIONS FOR THIS DEADLINE. FOR MORE INFORMATION CONTACT KELLEY AT RURAL DEVELOPMENT AT THE KEARNEY USDA SERVICE CENTER AT 308-455-9837 OR KELLEY.MESSENGER@USDA.GOV.**

CALENDAR OF EVENTS

- MAY 30:** MEMORIAL DAY – GOV'T OFFICES CLOSED
- JUNE 6:** CNPPID BOARD OF DIRECTORS MEETING
- JUNE 6:** CNPPID 12 WEEK IRRIGATION RUN SCHEDULE STARTS
- JUNE 7:** TBNRD BOARD MEETING

REMINDER: Soil Moisture Sensors!

Get your soil moisture sensors installed especially if they are required for an EQIP or CSP contract.

Tri-Basin Irrigator via EMAIL

SEE ATTACHMENT

If you would like to receive this newsletter via email, please provide me with your email address. 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@usda.gov.

CURTIS'S COLUMN

 United States Department of Agriculture
Natural Resources Conservation Service

Tri-Basin Irrigator in its 18th season!!!:

The Tri-Basin Irrigator is underway for its 18th season. Hello. 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. I would like to welcome those of you who will be receiving the Irrigator for the first time. It will be sent bi-weekly during the crop season.



Archived copies from 2016 to present are available on the Tri-Basin NRD's website at <https://www.tribasinprd.org/information-outreachnews/tribasin-irrigator-newsletter>.

Crop ET Information – Beyond Websites!!!

Again in 2022, I will email the weekly Crop ET information from the NAWMN sites each week. See map on page 3 for locations. These sites are additional Crop ET locations to the High Plains Regional Climate Center locations. **Anybody can be added to this email list. Contact Curtis Scheele at 308-995-6121 to provide him your email address.** The info will still be on page 3 of the newsletter, but this way you can receive the info more timely.

See page 2 for more ET options.

Beginning Season Moisture:

A long dry winter had us all wondering what to do. Granted the surface and seedbed area was dry. But what about the 4-foot profile. Dryland is obviously different from irrigation. Below is a table showing a 9-year average of year-ending soil moisture levels under pivot irrigation.

<i>Pivot Corn and Soybean Year End Averages (2011-2019) Holdrege Silt Loam soil (2.25 inches per foot)</i>		
Soil Depth	Corn	Soybeans
1 foot	79%	88%
2 foot	76%	75%
3 foot	75%	69%
4 foot	75%	64%
4 ft. avg.	76%	74%

These averages are from sensor usage over 9 years. Even though these sites averaged 75% moisture, across the Tri-Basin NRD, average year end moisture levels is 80%.

A 4-foot profile holds 9.0 inches. With the surface drying out so much over the winter, we'll use 75% avg moisture to 4-feet. 9.0 inches x 25% used = 2.25 inches short of a full profile.

Depending upon how much you watered with the pivot prior to planting and how much rain you received over the last couple of weeks, one could be at a full profile at planting time based on the averages.

Dry Winter, Wind, Trash In Canals:

Due to the lack of moisture and high winds this year, Central has collected much more cornhusks and corn stocks into their canals than previous years. This trash blown into the canals is flushed with water, mechanically scooped out of the canals with excavators and backhoes, and then hauled away in side-dump trailers and 10-yard dump trucks. The added trash in canals requires more work, longer days, and slower filling of the canals. Central is continuously working on the cleanup of their canals, along with other maintenance that still needs to be completed, to deliver irrigation to our customers in a timely and efficient manner.



Visit www.cnppid.com or follow @CNPPID on Facebook, Instagram and Twitter for updates throughout the year.

TRI-BASIN NRD NEWS



Chemigation Deadline June 1st:

Chemigation can be an effective and efficient means of applying fertilizers, herbicides, and insecticides to your field. State law requires anyone applying fertilizer or ag chemicals through their irrigation system to have an annual chemigation permit for each injection site.

Tri-Basin Chemigation renewal forms were sent to producers in January and must be signed and returned with payment to the Tri-Basin NRD office by June 1, 2022. Renewal permits are \$15 each and new permits are \$50 each. Landowners and operators should contact Tri-Basin NRD toll-free at 1-877-995-6688 regarding new chemigation permits. All newly permitted chemigation systems must be inspected before use.

A person must have a chemigation applicator license to apply ag products (fertilizer or 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.



Chemigation systems require routine inspections every three years. If your system is due for an inspection, you will be contacted this summer. NRD staff conduct these inspections from June to August. 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.tribasinnr.org, under Water Quality.

Free Irrigation ET Texting Service:

The "free daily texting" corn & soybean crop irrigation ET (evaporation/transpiration) water usage service is being provided again through partnership and CNPPID financial underwriting support. Automated daily weather data updates through the High Plains Regional Climate Center can be texted directly to your desired cell phone.

Again, in 2022, this free-of-charge service is a joint effort among CNPPID (Central Nebraska Public Power Irrigation District); Tri-Basin NRD (Natural Resource District); and Nebraska Extension. This daily text provides crop growth and water use calculations for both corn and soybean. **Corn** growth staging water usage is based on a **May 10th** emergence date; whereas, **soybean** growth staging water usage is based on a **May 15th** emergence date. The ET texting starting date will be June 1st.

Referenced automated weather data network stations are named to reflect mileage and direction from the nearest town. Texting weather stations include: "Holdrege 5N;" "Axtell 5NE;" and "Smithfield 2E."

If you are a returning participant, you do not need to re-register. However, if you would like to be added or removed; need to change your cell phone number; or have other questions: please contact Sasha Hahn @ Tri-Basin NRD (308-995-6688).

Free Irrigation ET Emailing Service from CNPPID:

Please note that free daily irrigation crop growth / ET updates can be directly emailed to you through CNPPID. Register through Dusty Way (dway@cnppid.com) or call 308-995-3555. Daily water use information is also available at: <http://www.cnppid.com>.*

UNL Irrigation Apps Available:

- Water Meter Calculator App
- Irrigation Pumping Plant Efficiency Calculator
- Agriculture Irrigation Costs

Goto http://cropwatch.unl.edu/archive/-/asset_publisher/VHeSpfv0Aqju/content/monitor-irrigation-data-from-your-phone to find out more about these apps and for links to purchase these apps.

New Free Online 'Farm Stat' Tool:

A new 'Farm Stat' tool from the Nebraska Extension On-Farm Research Network will allow growers and agronomists to easily run statistical analysis on their own research studies.

This new tool available online can be adapted to producer and/or consultant unique studies. Statistical significance increases when treatments are replicated. Generally, Nebraska Extension personnel encourage research studies to be repeated at least 3-4 times for statistical variance and reliability of results to be increased. To register: contact Laura Thompson at 402-245-2224 OR online <https://cropwatch.unl.edu/farmstat>.

NAWMN CROP ET INFORMATION

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

Inches of Crop Water Use (ET) =

Evaporation x Kc

Site	April 25 – May 1		May 2 – May 8	
	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

Crop Coefficients (Kc)			
Corn	Kc	Soybeans	Kc
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 (Not Planted to Planted stage): Nothing at this time.

Avg. daily water use from May 2 – May 8 was 0.00"-0.00".

Soybeans (Not Planted to Planted stage): Nothing at this time.

Avg. daily water use from May 2 – May 8 was 0.00"-0.00".

May 2-May 8 (0 of 14 NAWMN sites reporting): Average weekly rainfall was NA (range NA to NA). Average weekly ET for corn was NA and for soybeans was NA.

CROP ET INFORMATION

NAWMN Sites:

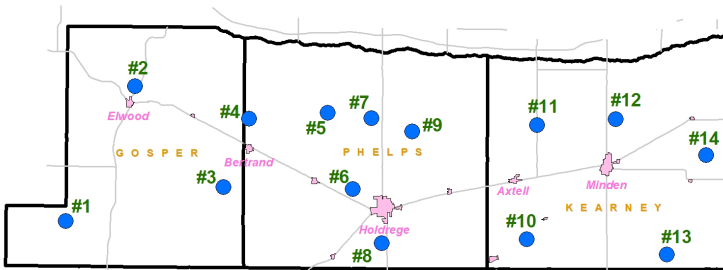
<https://nawmn.unl.edu/ETdata/DataMap>

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

CNPPID: <https://www.cnppid.com/weather-et-data/>

Texting: TBNRD: 308-995-6688 or UNL: 308-995-4222

Email: CNPPID: 308-995-3555



2022 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. TIP: 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)
V2	Second Node	V2 has 2 nodes on main stem, each with a trifoliate leaf with unfolded leaflets. Plant as 3 nodes total: 1 unifoliate + 2 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://cnppid.com/wp-content/uploads/2016/06/lakeRiverData.html>.

	May 11, 2022, 8:00 AM	1 Year Ago
Capacity of Lake McConaughy	67.7%	NA
Inflows to Lake McConaughy	664 cfs	693 cfs
Flows on the North Platte at North Platte	374 cfs	290 cfs
Flows on the South Platte at North Platte	263 cfs	442 cfs
Flows on the Platte at Overton	507 cfs	258 cfs

Potatoes and onions in alternate rows. The onions will make the potatoes eyes water and reduce the need for water.

WEBSITES OF INTEREST

NRCS Nebraska www.ne.nrcs.usda.gov
 Farm Service Agency www.fsa.usda.gov
 TBNRD Home Page www.tribasinrnr.org/
 Central Irrigation District www.cnppid.com/cropwatch.unl.edu
 UNL Cropwatch cropwatch.unl.edu
 UNL Extension extensionpubs.unl.edu/
 K-State SDI Website www.ksre.ksu.edu/sdi
 No-till On The Plains www.notill.org
 Soil Health: www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/
 NE State Irrig Assoc www.nebraskastateirrigationassociation.org/

RAINFALL

Rainfall amounts listed below and other locations come from NeRAIN which can be found at website <https://nednr.nebraska.gov/NeRain/Maps/maps>.

Location:	May 1 – May 11	May 1 – May 11
Elwood 0.26 mi. S:	2.43	2.43
Bertrand 6.1 mi. SE:	3.26	3.26
Holdrege 0.99 mi. E:	1.88	1.88
Minden 7.2 mi. W:	1.42	1.42
Minden 5.8 mi. E:	1.60	1.60

Average Rain for May in Holdrege = 4.06 Inches

*** 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@usda.gov. ***

USDA - Natural Resources Conservation Service

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 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 2nd Street
 Holdrege, NE 68949

PO Box 146
 Elwood, NE 68937

424 North Colorado
 PO Box 31
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 308-832-0645

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308-785-2390

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Tri-Basin Irrigator

via E-Mail

***How about receiving this newsletter
via E-MAIL rather than postal mail?***

Benefits???

1. It provides you with direct links to websites that could be valuable information you may need, whether it be from NRCS, CNPPID, TBNRD, UNL Extension, or other.
2. You will receive it hot off the press
3. You will be receiving weekly Crop ET from the NAWMN sites via email.
4. If in the tractor or out of the area, you can read it from wherever you are
5. I am sure there are other benefits

If you would like to receive this newsletter via email, please provide me with your email address. 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@usda.gov.