

Tri-Basin Irrigator

Volume 21, Issue 1

May 13, 2021

PROGRAM INFORMATION

EQIP: INITIAL FUNDS FOR 2021 ARE CURRENTLY BEING WRITTEN AND OBLIGATED INTO CONTRACTS. AFTER MAY 28TH, INITIAL UNUSED FUNDS WILL BE REDISTRIBUTED. **SIGNUP NOW FOR 2022 EQIP FUNDS.**

CSP: 2021 PRE-APPROVED APPLICATIONS ARE NOW BEING WRITTEN FOR CONTRACTS. **SIGN UP NOW FOR 2022 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 2021 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, 2021, THEN YOU WILL NOT RECEIVE ANY FUNDING ASSISTANCE. **NEXT SIGNUP DEADLINE WILL BE OCTOBER 31, 2021 FOR 2022 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 31: MEMORIAL DAY – GOV'T OFFICES CLOSED
JUNE 7: CNPPID BOARD OF DIRECTORS MEETING
JUNE 7: CNPPID 12 WEEK IRRIGATION RUN SCHEDULE STARTS
JUNE 8: 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: Up and Running in 2021!!!:

The Tri-Basin Irrigator has been a staple across the Tri-Basin NRD since 2005. It has even trickled into areas neighboring the NRD as well as places across Nebraska. Now starting its 17th season, it remains a positive item for producers and others. At least, that's the feedback I get. Numerous comments have been received over the years that have been very supportive and positive for this newsletter. I have tweaked it along the way but try to stay with my main goal. That is to provide you with irrigation and other related information across the NRD that is short and to the point. Hopefully, you will benefit from the information provided.



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 your first year as well as those who have received it in the past. Again, it will be sent bi-weekly during the course of 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!!!

1. Again in 2021, 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.
2. Again in 2021, you will be able to get Crop ET information via text messages. For more information, see page 2 under UNL Extension Extras.
3. Also mentioned in this article on page 2 is another option for Crop ET information from CNPPID. They offer daily emails. This service has been offered in recent years. See the article for contact information.

NRCS Offices – Corona Virus Status!!!:

As Covid continues, NRCS offices remain open for business with the following criteria as of today:

- Customers can come in by appt. for essential business. We continue to serve customers via phone, email and in the field.
- Offices are manned at 50% staff. Other NRCS staff telework from home. Staff work in the office on a rotational basis.
- We can go to the field with one person per vehicle.
- In-person meeting attendance is not allowed.
- All CDC guidelines must be followed.
- These guidelines will continue through August.

2021 Irrigation Season:

Preparation for the irrigation season is well underway at the Central Nebraska Public Power and Irrigation District. Central will deliver a full allocation of irrigation water to its customers in 2021. The first irrigation water started making its way down the E-65 canal on April 15th and the Phelps on April 26th. Central began filling Elwood Reservoir for irrigation this season on April 1st and will continue to fill till the end of May. Elwood Reservoir is used to store irrigation water so it can be released later in the season for the E-65 canal deliveries. The 2021 irrigation season officially begins on June 7th, and the final run of the season is scheduled to end on August 29th. Irrigation service may be available prior to the scheduled start date. Contact your Irrigation Service Specialist to see if they can meet your irrigation needs.

Central has been recording rainfall amounts at the Holdrege office rain gauge since 1957, and last year was the third driest year recorded with a rainfall amount of 10.36 inches. The average amount of rainfall recorded from 1957 to 2020 is 18.86 inches. Lake McConaughy is currently at elevation 3249.8 or 75.7% capacity, which is lower than last year's elevation of 3258.5 or 88.8% capacity. Inflows into Lake McConaughy are also lower than a year ago with current inflow of 643 CFS compared to last year of 3,260 CFS. Water will only be released from the lake for irrigation use, not for hydro power production.

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 February and must be signed and returned with payment to the Tri-Basin NRD office by June 1, 2021. 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.tribasinprd.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 2021, 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).

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>.

Managing Alfalfa Weevil:

Alfalfa weevil adults have unfortunately overwintered well this year, so there may be two flushes of weevil larvae this spring. This means that alfalfa regrowth after the first cutting may have a combination of late larval feeding and adult feeding.

Economic insecticide treatment threshold tables are provided at: <https://cropwatch.unl.edu/2021/scouting-advised-alfalfa-weevil>. Treatment recommendations are based on weevils per stem; alfalfa growth/heights; treatment costs; and projected alfalfa values.

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

Crop Coefficients (Kc)			
Corn		Soybeans	
Stage	Kc	Stage	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 V2-2Leaf stage): Hail, wind, or frost that damages the exposed leaves at the 3-leaf stage have little or no effect on yield due to the below ground growing point.

Avg. daily water use from May 3 – May 9 was 0.00"-0.02".

Soybeans (Not Planted to V1-First Node stage): Loss of one cotyledon has little affect on yield while loss of both can reduce yields by 8-9%.

Avg. daily water use from May 3 – May 9 was 0.00"-0.01".

May 3-May 9 (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>

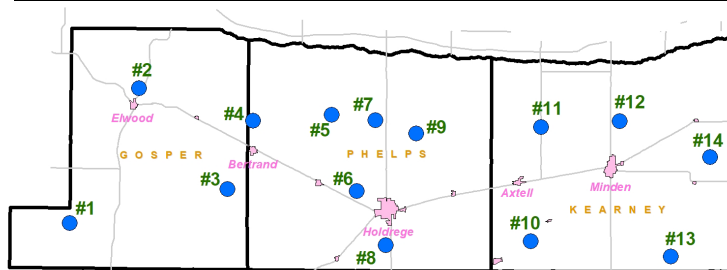
CropWatch: <https://cropwatch.unl.edu/gdd-etdata>

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

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

Email: CNPPID: 308-995-3555

Site	April 26 – May 2		May 3 – May 9	
	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



2021 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 13, 2021, 8:00 AM	1 Year Ago
Capacity of Lake McConaughy	75.8%	NA
Inflows to Lake McConaughy	693 cfs	2650 cfs
Flows on the North Platte at North Platte	285 cfs	860 cfs
Flows on the South Platte at North Platte	441 cfs	289 cfs
Flows on the Platte at Overton	245 cfs	2420 cfs

Water = Life
Conservation = Future

WEBSITES OF INTEREST

NRCS Nebraska www.ne.nrcs.usda.gov
 Farm Service Agency www.fsa.usda.gov
 TBNRD Home Page www.tribasinrrd.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 12	May 1 – May 12
Elwood 0.26 mi. S:	0.53	0.53
Bertrand 6.1 mi. SE:	1.26	1.26
Holdrege 0.99 mi. E:	1.04	1.04
Minden 7.2 mi. W:	1.57	1.57
Minden 5.8 mi. E:	1.71	1.71

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

1609 Burlington Street
1005 South Brown Street

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

309 Smith

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



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

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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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.