

Tri-Basin Irrigator

Volume 20, Issue 1

May 14, 2020

PROGRAM INFORMATION

EQIP: FUNDS FOR 2020 CONTRACTS ARE CURRENTLY BEING RANKED. WHEN RANKING IS COMPLETE, THEN PRE-APPROVED APPLICANTS WILL BE CONTACTED TO START WRITING CONTRACTS.

CSP: RENEWAL CONTRACTS ARE BEING WRITTEN NOW FOR THOSE GETTING RENEWAL CONTRACTS. - 80 PLUS NEW APPLICATIONS WILL BE WORKED ON IN THE NEAR FUTURE.

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 2020 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, 2020, THEN YOU WILL NOT RECEIVE ANY FUNDING ASSISTANCE. **NEXT SIGNUP DEADLINE WILL BE OCTOBER 31, 2020 FOR 2021 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 15: PEACE OFFICERS MEMORIAL DAY

MAY 25: MEMORIAL DAY – GOV'T OFFICES CLOSED

JUNE 1: CNPPID BOARD OF DIRECTORS MEETING

JUNE 8: CNPPID 12 WEEK IRRIGATION RUN SCHEDULE STARTS

JUNE 9: TBNRD BOARD MEETING

REMINDER: Soil Moisture Sensors!

Get your soil moisture sensors installed early 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: From my home in its 16th Year!!!:

Unlike a lot of things this year, the Tri-Basin Irrigator is up and running in 2020. 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. It will be sent bi-weekly during the course of the crop season. My goal 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.

Archived copies from 2016 to present are available on the Tri-Basin NRD's website at http://www.tribasinnrd.org/tb_irrigator.html.



Crop ET Information Beyond Websites!!! 2 NEW items in 2020!!!:

1. NEW: I am going to 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 from the High Plains Regional Climate Center locations. This will be emailed to crop consultants, producers, NAWMN participants, and a few others who receive this newsletter via email.

Anybody can be added to the email list. Simply contact Curtis Scheele at 308-995-6121 and provide him your email address. The info will still be on page 3 of the newsletter, but this way you can receive the information weekly.

2. NEW: The Water Use Hotline phone number has been discontinued. You will still be able to get Crop ET information in 2020 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.

NRCS Offices – Corona Virus Status!!!:

During this Corona Virus pandemic, NRCS offices have remained open for business with the following criteria:

- Doors remain locked, no customers inside. We can meet outside following social distancing guidelines.
- One NRCS employee in the office per day. All other NRCS staff are teleworking from home. Staff are working in the office on a rotational basis. My office days are Fridays. In photo above, I am working on this newsletter from home. I thought I would share the way we see each other in the world these days, through our computers. The lighting is always so lovely.
- We can go to the field with one person per vehicle.
- We'll see if anything changes in the near future as it appears that things will start opening up on a limited basis. Continuous ongoing decision-making process.

2020 Irrigation Season:

Preparation for irrigation season is well underway at the Central Nebraska Public Power and Irrigation District. The first irrigation water started making its way down the Phelps and E-65 canals on April 15th.

Central will begin filling Elwood Reservoir for irrigation this season on May 18th. The 2020 irrigation season officially begins on June 8th, and the final run of the season is scheduled to end on August 30th. Irrigation service is available prior to and after these dates by contacting your Irrigation Service Specialist to meet your irrigation needs.

Coronavirus has changed where some of us are working from this spring, and at this time we're not sure how long we'll continue working from our homes, vehicles, and other office spaces. However, our goal has been and will continue to be to provide optimal and timely irrigation deliveries to all of our customers. We've made adjustments to our methods in the hopes that our customers will not be affected. Our patrolmen are always available on their cell phones, and our irrigation office line is (308) 995-3572.

As we all work together to navigate these temporary inconveniences, please don't hesitate to reach out with any questions, comments or advice you may have for us; and please make use of our digital and social media sources to stay in touch with the latest news from CNPPID. Find us at www.cnppid.com or @CNPPID on Facebook, Instagram, Twitter and LinkedIn.

TRI-BASIN NRD NEWS**Chemigation Deadline 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.

State law requires anyone who applies fertilizer or ag chemicals through their irrigation system must have an annual chemigation permit. Chemigation renewal forms, sent to producers in January, must be signed and returned with payment to the Tri-Basin NRD office by June 1, 2020. 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.

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.tribasinnrdd.org, under the Programs & Services tab.

Free Irrigation ET Texting Service:

The Nebraska Extension / Tri-Basin "Water Use Hotline" is changed to a **"free daily texting"** corn & soybean crop irrigation ET (evaporation / transpiration) water usage service resource. Through High Plains Regional Climate Center automated data weather stations and Tri-Basin NRD, CNPPID & Extension partnership; crop growth and water use calculations for corn and soybeans are being provided free-of-charge.

Although the "800" ET Hotline will no longer be available, irrigation managers are being offered several **free** daily ET alternatives via electronic devices. **To register for this free Tri-Basin NRD / UNL Extension daily ET values texting service, call the Nebraska Extension office at 308-995-4222 or the Tri-Basin NRD at 308-995-6688.**

Another electronic irrigation crop growth / ET update option is **free** daily emails sent directly to you through the Central Nebraska Public Power and Irrigation District. **Register with Dusty Way (dway@cnppid.com) or call 308-995-3555.** Daily water use information is also available at <http://www.cnppid.com>

Referenced automated weather data network stations are named to reflect mileage and directions from the nearest town. Tri-Basin stations include: Holdrege » "Ragan 5W"; "Holdrege 5N"; "Axtell"; and "Smithfield 2E". The CNPPID email also includes: Gothenburg, Kearney and North Platte stations.

Corn growth stage water use values is based on a May 10th emergence date; whereas, soybean growth staging water use will be based on a May 20th emergence date. Updated data includes: crop water use averages (ET values) for daily, 3-days past and 3-days forward and accumulated Growing Degree Days (GDD's).

Scouting Advised for Alfalfa Weevils:

Reminder that alfalfa weevils have reached treatment thresholds in NC Kansas. So, UNL Entomologists, Julie Peterson and Robert Wright, outline economic thresholds in our May 6 Cropwatch 'Scouting Advised for Alfalfa Weevils' article.

Sulfur Needs for Soybeans and Corn:

Although there are 18 essential nutrients needed for plant growth, nutrient deficiencies causing yellowing of plant leaves (chlorosis) usually receive highest attention. Traditionally, nitrogen, needed in largest amounts by crops (behind hydrogen, oxygen and carbon), has been attributed with yellow leaves. However, nutrient deficiencies such as iron, magnesium, molybdenum, zinc, manganese, copper and sulfur can also cause varied yellowing leaves on plants.

Sulfur is now receiving more focus especially when growers want higher yielding soybeans. Our Nebraska Extension EC155 publication, "Nutrient Management for Agronomic Crops of Nebraska" outlines visual deficiency symptoms for each nutrient. When comparing nitrogen and sulfur deficiency, the biggest difference is that nitrogen deficiency is most notable on the older lower leaves first. Whereas, sulfur deficiency first appears on the upper leaves (new growth).

In the past, sulfur deficiency was mostly associated with lower organic matter and coarse (sandy soils). Also, when sulfur soil test values pegged 30 lbs. per acre or higher, then supplemental sulfur was not recommended. Higher yield goals for crops such as soybeans has shifted this recommendation. Sulfur (S) needed per bushel yield for normal plant growth are as follows: Corn & grain sorghum – 0.2 lbs.; Wheat – 0.60 lbs.; and Soybeans – 0.40 lbs. Thus, some soybean growers are supplementing 10-15 lbs./A of sulfur during pod development.

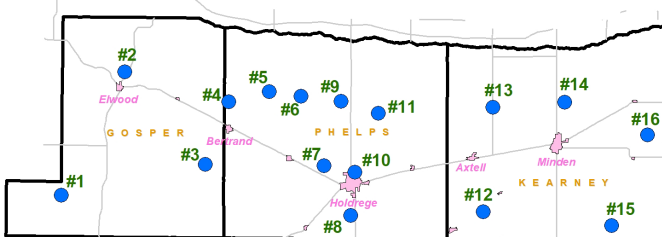
NAWMN CROP ET INFORMATION

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 27 – May 3		May 4 – May 10	
	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



2020 Map of NAWMN Sites across the Tri-Basin NRD.

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 4 – May 10 was 0.00"-0.01".

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 4 – May 10 was 0.00"-0.01".

May 4-May 10 (0 of 16 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://www.cnppid.com/weatheret-data/nebraska-agricultural-water-management-network/>

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

Email: NRCS: 308-995-6121, Ext. 3

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

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 14, 2020, 8:00 AM	1 Year Ago
Capacity of Lake McConaughy	89.0%	NA
Inflows to Lake McConaughy	2440 cfs	1090 cfs
Flows on the North Platte at North Platte	917 cfs	317 cfs
Flows on the South Platte at North Platte	314 cfs	365 cfs
Flows on the Platte at Overton	NA cfs	2100 cfs

Pay tribute to those who
paid the price of
freedom so you can live
the life of freedom.
I SALUTE YOU!



WEBSITES OF INTEREST

Soil Health:

www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/

Climate aqclimatenebraska.weebly.com
 NRCS Nebraska www.ne.nrcs.usda.gov
 Central Irrigation District www.cnppid.com/
 TBNRD Home Page www.tribasinrrd.org/
 Farm Service Agency www.fsa.usda.gov
 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

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 13	May 1 – May 13
Elwood 0.26 mi. S:	0.79	0.79
Bertrand 6.1 mi. SE:	0.62	0.62
Holdrege 0.99 mi. E:	0.55	0.55
Minden 7.2 mi. W:	0.47	0.47
Minden 5.8 mi. E:	0.53	0.53

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
 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, or UNL Extension
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.