

PROGRAM INFORMATION

EQIP: SIGN-UP NOW FOR 2025 FUNDS.

CSP: SIGN-UP NOW FOR 2025 FUNDS.

NSWCP: NEW FUNDS COME JULY 1ST FOR ALL ELIGIBLE CONSERVATION PRACTICES. HAVE YOUR APPLICATIONS COMPLETE BY JUNE 28TH. APPLICATIONS MUST BE SIGNED BY THE OWNER.

ENERGY EFFICIENCY GRANT: NEXT SIGN-UP DEADLINE IS JUNE 30TH. FOR MORE INFORMATION, CONTACT JOLENE AT RURAL DEVELOPMENT AT THE KEARNEY USDA SERVICE CENTER AT 308-455-9840 OR AT JOLENE.JONES@USDA.GOV.

CALENDAR OF EVENTS

JUNE 10: CNPPID 12 WEEK IRRIGATION RUN SCHEDULE STARTS

JUNE 13: TBNRD BOARD MEETING – MOVED FROM 2ND TUESDAY

JUNE 14: UNL WHEAT PLOT TOUR NEAR ARAPAHOE & CULBERTSON. INFO & WEBSITE LINK PROVIDED ON PAGE 2.

JUNE 14: FLAG DAY

JUNE 16: FATHERS DAY

JUNE 19: JUNETEENTH – BANKS & GOV'T OFFICES CLOSED

JUNE 19: UNL TAPS SUMMER FIELD DAY AT NORTH PLATTE.

GOTO <https://taps.unl.edu/taps-2024-summer-field-day> FOR MORE INFORMATION AND TO REGISTER BY JUNE 12.

JUNE 26: UNL WEED MGT FIELD DAY AT THE NEBR. EXTENSION

SOUTH CENTRAL AG LAB NEAR CLAY CENTER. GOTO [HTTPS://GO.UNL.EDU/2024FIELD-DAY](https://go.unl.edu/2024field-day) TO PRE-REGISTER.

JULY 1: CNPPID BOARD OF DIRECTORS MEETING

Crop Water Use: Where's it Come From?

Crop Water Use (Crop ET) is generated from three sources.

1. High Plains Regional Climate Center (HPRCC) has weather stations across Nebraska. They measure all the weather data needed to calculate Reference ET. Reference ET is multiplied by the Crop Stage Coefficient (Kc) to come up with Crop ET or Crop Water Use. Crop stage is based off one emergence date. The three stations in the TBNRD use May 10th for corn and May 20th for soybeans. See attachment for the texting service.
2. There are 12 atmometers across the TBNRD which are called the TBAWMN sites. These determine Reference ET based off climatic conditions. Crop ET is calculated the same by multiplying Reference ET by the crop stage coefficient (Kc). This method allows producers to use their own crop stage rather than the one-time emergence date mentioned in #1 above.
3. Reference ET can come from a producers own weather station if it has all the components needed to calculate it. Reference ET is again multiplied by the Crop Stage Coefficient (Kc) to come up with Crop ET or Crop Water Use.

This is a quick synopsis of where Crop Water Use or Crop ET comes from. To find Crop ET, see info on page 3 under the Section labeled "Crop ET Information". You can also refer back to the last issues article "2024 Crop ET Sources".

CURTIS'S COLUMN



Grazing: What?!?! – Okay; Where and Who?

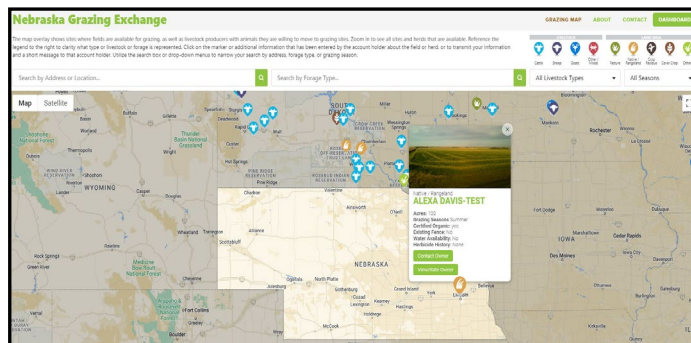
Grazing; what's that got to do with irrigation? Well, maybe you would like your stalks grazed. Maybe you would like a cover crop that is grazed on your pivot. Maybe the grazer would plan and plant the cover crop. Never know what can be agreed to. Maybe you have available grass for grazing. Maybe you have livestock that needs some grass. Maybe you have small acres of grass or cover crop that would work well for that small herd of cattle, goats, or sheep.

With sobusted acres facilitating pivots or to farm dryland cropland, a few things might be happening. 1. Less rangeland/pastureland for grazing so now where does one go with their herd? 2. More cropland means more opportunity for cover crops to improve your soil health. 3. Probably more small grazeable acres, grass or cover crops, that can be available to small herds or the backyard farmer.

So how do I know what's available to be grazed in my area? Or, how do I get the word out that I have acres available for grazing?

Here is a tool to help you with 2 things: 1. where you can graze your livestock and 2. who is out there that can utilize my acres for grazing? The Nebraska Strategic Ag Coalition group has funded an online interface that connects landowners who don't have grazing animals to livestock owners who can provide grazing management services. You can go to the Nebraska Grazing Exchange website at <https://nebraskagrazingexchange.com/> to create a free account. You will create a pin by entering your information about either your grazing herd or about the land you have available for grazing. Hopefully, you can find a match and connect with others in your area. In the photo below you will catch a glimpse of how this works. Nobody is listed in Nebraska yet but hopefully that can change through this effort and provide many opportunities for lots of friendly folks.

If you have any questions, you can contact Alexa Davis with the Nebraska Department of Natural Resources at alexa.davis@nebraska.gov or at 402-471-3948.



Tri-Basin Irrigator via EMAIL

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.

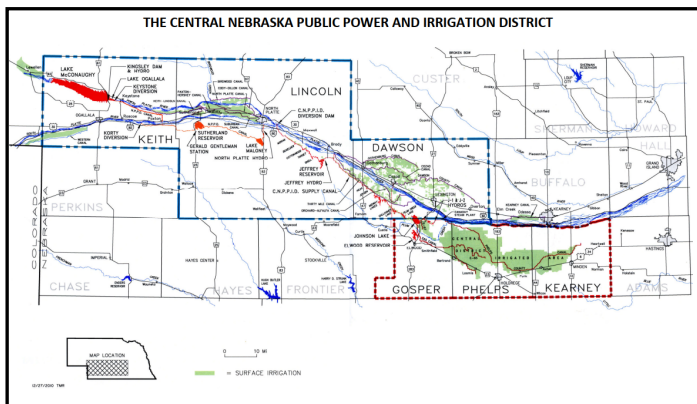


CNPPID Irrigation

The Central Nebraska Public Power & Irrigation District serves over 108,000 irrigated acres with surface water for irrigation. This surface water is sourced from either water that is stored in Lake McConaughy and released downstream for irrigation or is natural flow out of the Platte River.

Water is conveyed and delivered through four canal systems (Supply, E65, E67 & Phelps Canals), which consist of a combination of hydroelectric power facilities, lakes, open ditches, pipelines, and siphons. The four canal systems provide surface water irrigation for Centrals customers in Lincoln, Dawson, Gosper, Phelps, and Kearney counties.

Central's 84-day scheduled irrigation season begins June 10th and runs through September 1st for the 2024 irrigation season. This irrigation water is delivered to Centrals irrigation customers on a one-week or two-week scheduled delivery, depending on how the customer has set up their desired irrigation schedule.



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

TRI-BASIN NRD NEWS



Check Flowmeters Before Starting Irrigation

Please check the flowmeters on your wells before starting irrigation this season. Double check that your beginning meter reading matches the reading from the end of last season. Check the meter periodically throughout the season to confirm it is working properly. This benefits both you and Tri-Basin NRD. Keeping accurate irrigation records helps you be more efficient, which in turn will help your bottom line. It is the responsibility of the producer to make sure the flowmeter is functioning properly during the irrigation season.

Please be aware that **Senninger brand flowmeters** will not work properly if the battery size is not correct. **These meters require lithium 3.6-volt batteries, NOT standard 1.5-volt AA batteries.**



New "Testing Your Private Well for Nitrate" Video

Nebraska WAVES has just released a new 5-minute YouTube training video regarding how to properly test and treat drinking water with possible high nitrates. This training may complement the free Tri-Basin NRD home water sampling and nitrate testing service. Visit <https://nebraskawaves.org/>. Or, download video at <https://vimeo.com/840921130/2af8b428cf?share=copy>

Corn Growth Stages

Accurate crop growth stage is important for efficient irrigation; hail & frost injury evaluation; & chemical application decisions. For example, many post-emergence herbicides have restrictions based on growth stage or plant height; and the 'leaf collar method' is usually considered the most accurate method to growth stage corn. This collar method starts with counting true leaves from the ground upward with each collar/leaf assigned a number.

Since the lower 2-3 corn leaves usually slough off during the growing season, it can sometimes be a challenge in late season to quickly count leaf development without splitting corn stalks and counting nodes. Therefore, it may be helpful to flag several corn plants now during V6 and cut the leaf tip off. Then, later more accurately assess corn development by starting with the #6 cut leaf and counting upward.



At the 6 leaf (V6) stage, the corn growing point moves above the ground & the tassel forms. Then, ear formation begins at the 8 leaf (V8) stage. Corn & soybean growth charts available at: <https://water.unl.edu/documents/nawmn/corn.pdf> and <https://water.unl.edu/documents/nawmn/soybeans.pdf>

Sidedressing Fertilizer Application

Since potential number of kernel rows per ear (ear girth) are determined between V6 to V10 (Tenth-Leaf = brace roots development), sidedress fertilizer applied now while corn moves past five- to six-leaf stages may protect potential yield losses.

Several free nitrogen software tools are available to calculate sidedress rates including: UNL "Maize-N"; UNL "Corn Nitrogen Calculator"; and "Corn Nitrogen Rate Calculator" from Iowa State University. The latter two web-based tools can be used to compare nitrogen returns based on different nitrogen sources and corn prices.

*NEW date - UNL Wheat Plots Tour – June 14 (Friday)

Among the 8 statewide locations, UNL Wheat Performance Plot tours in Furnas and Red Willow counties will be provided on Friday, June 14 beginning at 11:00 a.m. on Troy tenBensel farms NW of Arapahoe and 5:00 p.m. at Peters Seed Farms south of Culbertson. More dates, times, and details online: <https://cropwatch.unl.edu/2024/unl-schedules-2024-wheat-variety-tours>

New UNL Sulfur Fertilizer NebGuide

A new G2360 NebGuide "Sulfur Management of Ag Systems of Nebraska" describes how to properly manage sulfur focusing on the 4R's (right rate; right source, right place and right time). Nitrogen deficiency noted on the older lower leaves first vs. sulfur deficiency first appears on the upper leaves (new growth). <https://extensionpublications.unl.edu/assets/pdf/g2360.pdf>

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) =

Reference ET 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 (V2-2 Leaf stage to V10-10 Leaf stage): Hail, wind, or frost at the 3-leaf stage has little or no effect on yield due to the below ground growing point. At V6, the determination of kernel rows per ear begins.

Avg. daily water use from May 27 – June 2 was 0.02"-0.17".

Soybeans (VE-Emerging to V4-4th Node stage): At V2, lateral roots are proliferating rapidly into the top 6 inches of soil between rows. Nitrogen-fixation begins at V2-V3.

Avg. daily water use from May 27 – June 2 was 0.00"-0.16".

May 27-June 2 (12 of 12 TBAWMN sites reporting): Average weekly rainfall was 0.98 (range 1.64 to 0.45). Average weekly ET for corn was 0.33 and for soybeans was 0.21.

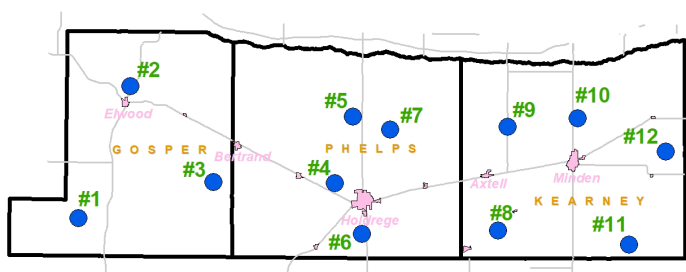
CROP ET INFORMATION

TBAWMN Sites: <https://www.tribasinrrd.org/tbawmn>

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

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

Site	May 20 – May 26		May 27 – June 2	
	Reference ET	Rain	Reference ET	Rain
1	1.40	0.80	1.60	1.44
2	1.45	1.25	1.40	1.32
3	1.60	1.00	1.40	1.64
4	1.30	1.25	1.60	1.08
5	1.40	1.04	1.50	1.03
6	1.80	0.87	1.40	1.60
7	1.10	1.10	1.40	0.72
8	1.70	1.02	1.30	0.66
9	1.70	0.94	1.40	0.54
10	1.80	0.74	1.40	0.55
11	1.20	0.68	1.70	0.45
12	1.50	0.62	1.40	0.72



2024 Map of TBAWMN Sites across the Tri-Basin NRD.

CORN STAGE		DESCRIPTION
V4	4 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.
V6	6 Leaves	
V8	8 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 Capacity as well as 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>.

	June 6, 2024, 8:00 AM	1 Year Ago
EI. & Cap. – Lake McConaughy	3241.5 ft - 64.3%	3233.9 ft - NA%
Inflows to Lake McConaughy	812 cfs	1040 cfs
Flows on the North Platte at North Platte	425 cfs	358 cfs
Flows on the South Platte at North Platte	273 cfs	1350 cfs
Flows on the Platte at Kearney	2100 cfs	2010 cfs

D-Day
June 6, 1944

"When you go home
Tell them of us and say,
For your tomorrow
We gave our today"

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 23 – June 5	May 1 – June 5
Elwood 1.81 mi. NW:	1.98	5.94
Loomis 0.2 mi. SW:	2.00	5.85
Holdrege 1.7 mi. W:	2.03	5.99
Minden 7.2 mi. W:	1.01	3.88
Minden 5.8 mi. E:	0.88	3.70

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
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
Minden, NE 68959
308-832-0645

308-995-4222

308-785-2390

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Free ET Data Texting Service

A texting service for ET Data replaced the Water Use Hotline.

ET Data (Evapotranspiration Data) can be useful in making decisions about your irrigation, fertilizer and chemical application schedule. Texts are sent Monday through Friday from June 5th to August 31st. The texts contain:

Daily (D) and Future 3 Days (F3d) estimated water use for both Corn and Soybeans (Beans) at three locations across the district: Holdrege 5N (Hld), Axtell 5NE (Axt) and Smithfield 2E (Smfld).

Additional Weekly Text for all three locations includes: Weekly Precipitation (Wk Precip), Corn Growing Degree Days (Corn GDD), and Beans Growing Degree Days (Beans GDD)

To Subscribe:

- **Scan the QR Code** and enter your information,
- Text **START** to (308) 216-8188, or
- Call Tri-Basin NRD at 308-995-6688 and request to receive ET Data texting.



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