

PROGRAM INFORMATION

EQIP: CONTRACTS CURRENTLY BEING WRITTEN ON PRE-APPROVED APPLICANTS. AS ADDITIONAL FUNDS BECOME AVAILABLE, ADDITIONAL PRE-APPROVALS MAY TAKE PLACE.

CSP: ASSESSING AND RANKING THE 2020 APPLICATIONS. RANKING DEADLINE IS JULY 10TH.

NSWCP: NEW FUNDS HAVE ARRIVED. GET YOUR IRRIGATION APPLICATIONS IN BY AUGUST 31ST FOR FIRST CHANCE APPROVALS.

ENERGY EFFICIENCY GRANT: SIGN-UP DEADLINE FOR 2021 FUNDS IS OCTOBER 31, 2020. 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

JULY 14: TBNRD BOARD MEETING

AUG 3: CNPPID BOARD OF DIRECTORS MEETING

A Hot, Dry Year Can be a Blessing!

A hot, dry, demanding irrigation year may not be fun, but it can be a blessing. We can learn a lot from it if we want to invest the time and effort. Rain can hide irrigation uniformity problems. Poor uniformity from older and underperforming systems can significantly reduce yields, especially in dry years. Even in a wetter year where we can't visibly see the problem, subtle yield differences can occur.

Water application uniformity can be caused by a number of things such as these items:

- Sprinklers on pivots can wear out and either stop rotating or rotate out of control.
- Sprinklers may be plugged.
- Sprinkler spacing may be too wide.
- On the outside of the pivot, is the endgun getting more water on the outside of its throw than the inside.
- Tall corn can prevent sprinkler uniformity.
- SDI tape spacing may be too wide.
- SDI emitters may be too far apart.
- SDI emitters may be plugged.
- Leaks in gates, gaskets, SDI tape, blown out sprinklers, etc. causing reduction in water application.
- Pumping water level declines so the system flow rate and pressure no longer match original design.

Application uniformity issues can lead to over or under irrigation based on soil moisture sensor locations.

Assess your system now while you can easily see what is going on. Some changes or adjustments can be made now, making the best out of this year. It will also give you a better idea of any changes that may be needed in the off season. Waiting can lead to additional years of affected yields, ultimately cutting into your bottom line.



Photo Courtesy of UNL

CURTIS'S COLUMN

Staffing Updates in NRCS Offices Across the TBNRD:

- New: Tim Schaaf, RC, - Elwood – Replaced Lisa Berkepile – Starts August 31st

Heads-Up Option to e-sign USDA documents:

This little article is to make you aware of an option to e-sign USDA documents from NRCS and FSA. There is nothing for you to do at this time. If we have something that needs your signature, we can explain this option and initiate the process at that time. Then you can sign at your convenience at your location. That's right. No need to stop in the office. More information is on the attached flyer. Or click on this link for additional information: <https://www.farmers.gov/mydocs>. Any further questions, contact your local NRCS or FSA office.

CSP Contract Holders!!!

A Couple of REMINDERS!!!

1. Don't forget to take your leaf tissue samples prior to tassel if that's a part of your contract.
2. Fertilizer enhancements must have nutrients applied according to UNL recommendations. Total fertilizer applied including last fall, starter, etc. counts towards the total amount applied for the 2020 crop. - They also count when needing 50% of total nitrogen after emergence.

If you have any questions, contact your local NRCS office.

EQIP Dryland, No-till, & Grass Field Checks!!!

The NRCS will be starting their annual field checks for dryland, no-till, and grass contract obligations for EQIP contract holders. These checks will take place over the next month or so. This past spring, EQIP contract holders received a reminder letter with a map indicating which areas needed to be dryland, no-tilled, or have grass maintained. **Failure to comply with your EQIP contract could result in termination, repayment of funds, and/or penalties.**

Ultrasonic Flow Meter Measurements Are Available!!!

The ultrasonic flow meter can be used to determine how much water your well is pumping, how much water is going into your irrigation system, how much water you are losing from leaky gates and gaskets, how much water you are applying to your field, or it can be used as a check against your permanently installed flow meter.

If you wish to request an ultrasonic flow meter measurement, you can contact Curtis Scheele, NRCS, at 308-995-6121, Ext. 3 OR Nolan Little, TBNRD, at 308-995-6688 to schedule an appointment.



Irrigation is High Demand:

Irrigation is officially in high demand across the Central district. The Phelps Canal is carrying a load of over 600 cubic feet per second, and the gate at Elwood has been opened to begin using water stored there for irrigation use along the E-65 canal.

Lake McConaughy has dropped nearly eight feet since it peaked, and, should demand remain high through the rest of the growing season, the reservoir could possibly see a drop of up to an additional 15 feet.

Increasing outflows from Lake McConaughy also brings along another issue to address – increasing sediment. Central operates their main dredge at the diversion dam structure just downstream from where the North and South Platte Rivers converge near the city of North Platte.

A few years ago, Central began using a second dredge along the dam and outlet area at Jeffrey Reservoir, which is the first major reservoir along the Supply Canal. Over the past 75+ years, sediment has decreased the lake's capacity and created channel flow problems between the inlet and outlet structures at the lake. Dredging and shoreline stabilization work will continue to be addressed for years to come for Central.

Find us at www.cnppid.com or @CNPPID on Facebook, Instagram, Twitter and LinkedIn.

TRI-BASIN NRD NEWS



Assistance to Treat Infestation:

Phragmites is an invasive perennial that is found in wet areas, such as along rivers, ponds, creeks, CRP acres, sub-irrigated ravines, and road ditches. It spreads by both seed and rhizomes, so it can spread tenfold in a single season. It has no forage value for livestock or wildlife.

Phragmites is on Nebraska's Noxious Weed list, which means that landowners are required to treat infestations on their property. The Twin Valley Weed Management Areas (TVWMA) worked diligently over the past several years to combat phragmites along the area's river channels. If the weed goes untreated on private property, however, the TVWMA's progress will be in vain. The TVWMA, with grant funding from the Nebraska Environmental Trust, can aid landowners in treating phragmites. If you have phragmites on your property, contact your County Weed Superintendent to see if you are eligible to have it sprayed free of charge:



Gosper: Marty Craig- 308-324-3771
Phelps: Bobby Hamilton- 308-991-0139
Kearney: Joe Anderson- 308-832-2854

Fertigating Corn and Soybeans:

Fertigation has gained momentum by irrigators as a cost-effective in-season nitrogen (N) supplementation tool. Through this 'spoon-feeding' fertility system, nutrients are provided with the irrigation water when crops actually need the extra fertilizer to attain optimum yields. Then, the higher nitrogen-use efficiency can result in reduced total seasonal nitrogen usage. An added bonus with fertigation is improved environmental stewardship with potentially less nutrients leaching into groundwater.

Newer corn hybrids are now bred to require more nitrogen later in the growing season compared to older corn hybrids. Two University studies have documented that new hybrids are now taking up 29% more nitrogen post-flowering compared to corn breeding in the previous decade.

For corn, many fertigators are making up to four applications per growing season. Extension crop specialists recommend only applying 30-40 lbs. per acre per application with at least 1/4 inch of water applied. However, maximum rates could be extended to 50-60 lbs N per acre with limited plant injury.

In-season plant sensors can further improve fertigation nitrogen-use efficiency. Sensor equipment such as drones, aerial pivot photos, hand-held plant chlorophyll sensors and on-the-go infra-red sensors can enhance application rate decisions.

Fertigation can also benefit soybeans, since these plants require 4-5 lbs. of N per bushel of production. Under rainfed conditions, soybean growers expect the plants to meet their high nitrogen needs through N-fixation with their root nodules.

Conversely, when irrigators seek higher yields, the soybean plants may need some added nitrogen to attain target yield goals. The challenge is that soybeans are opportunistic and decrease their nitrogen fixing if mineralized N is already readily available. So, early N applications in the growing season usually do not increase yields. Rather, fertigation should be timed for peak nitrogen demand. For soybeans, highest N need is growth stage (R3) when the plants are beginning pod development. Recommended nitrogen rates are 20-40 lbs. N per acre at reproduction growth stage R3.

Frogeye Leaf Spot Assessment:

Despite our desire that the *Frogeye Leaf Spot* soybean disease would remain primarily a northeast Nebraska problem, Tamara Jackson-Ziems, Extension Plant Pathologist, has now confirmed this disease in Kearney county.

For Nebraska, this disease has caused yield losses up to 20% in some highly susceptible soybean varieties. Frogeye leaf spot is a foliar disease which can also impact seeds, pods, and stems. The spots are circular in shape with a size ranging from 1 to 5 mm (1/16 to 1/4 inch). Initially, the lesions appear as dark water-soaked spots, but later appear brown in color with reddish-purple margins. Younger leaves in the upper canopy are more susceptible than older fully expanded leaves. Infection can occur at any time during soybean growth but is most common after flowering.



In 2019, QoI (strobiluriiin, FRAC group 11) fungicide resistance was detected in soybean frogeye leaf spot samples with fungicide resistance now present in almost all Nebraska counties. If you notice soybean fields with these symptoms, please contact our Extension office for sample submission.

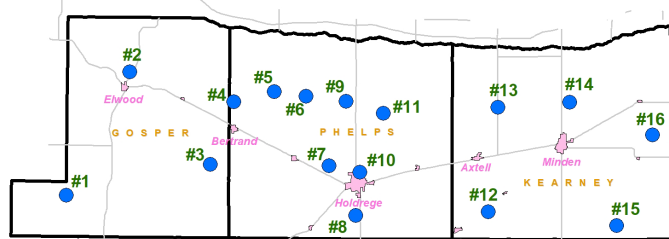
NAWMN CROP ET INFORMATION

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	June 22 – June 28		June 29 – July 5	
	Evaporation	Rain	Evaporation	Rain
1	2.20	0.92	2.00	0.63
2	1.90	0.23	1.80	0.03
3	2.20	0.19	1.90	0.43
4	2.00	0.35	1.70	0.00
5	NA	NA	NA	NA
6	2.00	0.35	1.90	0.15
7	2.00	0.12	1.90	0.13
8	1.90	0.11	1.60	0.39
9	1.90	0.28	1.60	0.10
10	NA	NA	NA	NA
11	2.00	0.20	1.70	0.10
12	2.00	0.00	1.60	0.24
13	2.20	0.20	2.00	0.05
14	2.20	0.30	1.90	0.01
15	2.10	0.00	1.70	0.11
16	2.00	0.17	1.80	0.01



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 (V12-12 Leaf to R1-Silking stage): Number of ovules that will be fertilized is being determined at Silking. Environmental stress, especially moisture stress, needs to be avoided. Stress will usually result in a nubbin.

Avg. daily water use from June 29 – July 5 was 0.20"-0.31".

Soybeans (R1-Beginning Bloom to R2-Full Bloom stage): Stress is not as critical in early stages. Soybeans can compensate by adding pods through R5. R4 is the beginning of the most crucial period to avoid stress in terms of yield.

Avg. daily water use from June 29 – July 5 was 0.21"-0.29".

June 29-July 5 (14 of 16 NAWMN sites reporting): Average weekly rainfall was 0.17 (range 0.00 to 0.63). Average weekly ET for corn was 1.70 and for soybeans was 1.71.

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
V16	16 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.
R1	Silking	Begins when any silks are visible outside the husks.
R2	Blister	The kernels are white on the outside and resemble a blister in shape. The cob should be close if not at full size by R2. The silks are drying and darkening in color.
Soybean Stage		DESCRIPTION
R1	Beginning Bloom	At least one open flower is present at any main stem node.
R2	Full Bloom	At least one open flower is present at any 1 of the 2 uppermost main stem nodes with fully developed leaves.
R3	Beginning Pod	At least one pod of 3/16" length is present at any 1 of the 4 upper most main stem nodes with a fully developed leaf. There can be pods of greater length at the lower nodes.

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>.

	July 9, 2020, 8:00 AM	1 Year Ago
Capacity of Lake McConaughy	77.4%	NA
Inflows to Lake McConaughy	NA cfs	NA cfs
Flows on the North Platte at North Platte	NA cfs	NA cfs
Flows on the South Platte at North Platte	NA cfs	NA cfs
Flows on the Platte at Kearney	1070 cfs	3730 cfs

Your life is BLESSED the moment you decide to notice it.

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WEBSITES OF INTEREST

Soil Health:

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

Climate agclimatenebraska.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:	June 25 – July 8	May 1 – July 8
Elwood 0.26 mi. S:	0.35	4.80
Bertrand 6.1 mi. SE:	0.70	6.86
Holdrege 0.99 mi. E:	0.22	5.63
Minden 7.2 mi. W:	0.35	8.02
Minden 5.8 mi. E:	0.04	8.96

Average Rain for May-June in Holdrege = 8.04 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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NEW SOLUTIONS FOR SIGNING AND SHARING USDA DOCUMENTS ONLINE

USDA's Farm Service Agency and Natural Resources Conservation Service have developed new, secure ways for agricultural producers to access, sign, and share documents online with just a few clicks.

We are committed to delivering USDA programs and services while taking safety measures in response to the coronavirus outbreak. USDA Service Centers are open for business by phone appointment, and we are leveraging convenient new digital solutions, Box and OneSpan, to best serve you.

Online File Sharing and e-Signature Options

OneSpan will allow you to e-sign documents efficiently and at your convenience, via either your computer or mobile device, without ever leaving your home or agricultural operation. Alternatively, customers may use Box if they wish to print, manually sign, and upload documents to their secure Box account. Both services are free to customers, and getting started is easy as 1-2-3.

1. Your local USDA Service Center will contact you when your next eligible document needs to be signed, or you may reach out to apply for programs – such as our new Coronavirus Food Assistance Program – using Box and OneSpan.
2. During this call, Service Center staff will explain your options, and initiate Box and/or OneSpan access based on your individual wants and business needs.
3. You'll receive an email invitation from Box and/or OneSpan. Box requires a simple username and password, while OneSpan requires identity verification through a security code or question and answer. Once you've gained access, documents can be opened, signed, and shared from any location with internet or cell service.

USDA assists agricultural producers with disaster assistance, conservation, safety net, and farm loan programs and services like conservation planning and acreage reporting.

Visit farmers.gov/mydocs to learn more.

