

Tri-Basin Irrigator

Volume 11, Issue 9

September 1, 2011

PROGRAM INFORMATION

EQIP, AWEP, CSP, WHIP, WRP, & MANY MORE:
APPLICATIONS FOR 2012 FUNDS CAN BE TAKEN ANYTIME AT YOUR LOCAL NRCS OFFICE. NO CUTOFF DATE FOR 2012 FUNDS HAS BEEN SET YET. HOWEVER, GET YOUR APPLICATION IN BEFORE IT'S TOO LATE. APPLICATIONS MUST BE APPROVED PRIOR TO STARTING ANY INSTALLATION WORK.

NSWCP: APPLICATIONS FOR COST-SHARE CAN BE TAKEN AT YOUR LOCAL NRCS OFFICE. **IRRIGATION APPLICATIONS NEED TO BE COMPLETED BY NOVEMBER 30TH IN ORDER TO BE REVIEWED FOR APPROVAL AT THE DECEMBER BOARD MEETING.** APPLICATIONS MUST BE APPROVED PRIOR TO STARTING ANY INSTALLATION WORK. APPLICATIONS MUST BE SIGNED BY THE OWNER.

CALENDAR OF EVENTS

- AUG 26-SEPT 5:** NEBRASKA STATE FAIR
SEPT 5: LABOR DAY – GOVERNMENT OFFICES CLOSED
SEPT 6: CNPPID BOARD OF DIRECTORS MEETING – 9 AM
SEPT 8: NO-TILL EXPO SOUTH OF MINDEN, REGISTRATION FORMS ARE AT YOUR LOCAL NRCS OFFICE. **REGISTRATION DEADLINE IS SEPT. 2ND.** ALL THIS IS ALSO AVAILABLE AT WWW.NOTILL.ORG/WW_TOUR/WW_11/MINDEN.HTM
SEPT 13: TBNRD BOARD MEETING – 7:30 PM
SEPT 13-16: HUSKER HARVEST DAYS, GOTO WWW.HUSKERHARVESTDAYS.COM FOR MORE INFO.

How much water did I apply in 2011?

With most irrigation done after the recent rain, you can start reading your flow meters and calculate how much water you applied during the crop season. Flow meters vary as to their unit outputs (ac-in * 0.01, gallons * 100, ac-ft * 0.001, etc.). The first thing to do is simply subtract your beginning year reading from the ending year reading to get units of water pumped. No matter what the units of water pumped, you can calculate the net irrigation inches applied using the following calculations:

1. Acre-Inches / Acres = Inches Pumped
2. Gallons Pumped / 27,154 / Acres = Inches Pumped
3. (Acre-Feet * 12) / Acres = Inches Pumped

4. Inches Pumped x Efficiency Factor* = Net Inches Applied

*Efficiency Factors
Subsurface Drip Irrigation = 0.95
Pivot - low pressure drops = 0.90
- med. & low pressure impacts = 0.85
- high pressure = 0.80
Surge Valve = 0.80
Gated Pipe - with reuse = 0.7
- without reuse = 0.5

If you have any questions or would like assistance in determining how much water you applied, contact Curtis Scheele at 308-995-6121, Ext. 3.

ACROSS THE TRI-BASIN NRD

2011 Year End Reports Due!!!

- **EQIP/AWEP Irrigation Water Management (IWM) Records:** All EQIP/AWEP contract holders with irrigation practices need to submit their 2011 irrigation records to their local NRCS office. A slow time between irrigation and harvest would be a great time to get these turned in. Then they are out of the way. These reports differ from the Water Use reports required by the NRD. These require more information such as soil moisture, ET, rainfall, and flow meter readings. An NE-ENG-80 form was sent out last spring to be used. Copies of agronomists field reports, CNPPID's schedule, or other forms can be substituted.
- **Water Use Reports:** The NRD requires your tillage info on these reports (acres of no-till, conventional till, etc.). The NRD feels they can show water conserving benefits through no-till, etc. Without tillage info, these benefits can't be shown. **Deadline for submitting these reports to the Tri-Basin NRD is November 18, 2011.**
- **Nitrogen Management Reports:** See tillage info requirements under Water Use Reports above. **Deadline for submitting these reports to the Tri-Basin NRD is December 31, 2011.**

Stage of Growth:

Corn (R4.7-Beginning Dent to R5.5-Full Dent (1/2 milk line) stage): Corn at 1/4 milk line needs 3.75 inches of water to reach maturity. On a Holdrege Silt Loam soil, drawing moisture from 4 feet and 85% moisture, you are done irrigating.

Average daily water use from Aug 22-Aug 28 was 0.15"-0.27".

Soybeans (R5-Late Beginning Seed to R7-Beginning

Maturity stage): Soybeans at Full Seed needs 3.5 inches of water to reach maturity. On a Holdrege Silt Loam soil, drawing moisture from 4 feet and 80% moisture, you are done irrigating.

Average daily water use from Aug 22-Aug 28 was 0.13"-0.28".

Irrigation:

The rain this last Monday night/Tuesday morning has put an end to much of the irrigation season. If one is debating as to whether or not to put on a last shot of water, don't do it. There is water in that 3rd and 4th foot that will carry you through.

August 22-August 28 (14 of 14 NAWMN sites reporting):

average weekly rainfall = 0.09" (range 0.00" to 0.51") and average weekly ET for corn = 1.31" and for soybeans = 1.28".

Lake McConaughy is at 90.5% capacity versus 89.0% a year ago. Inflows to Lake McConaughy are 2213 cfs versus 2592 cfs a year ago. Flows on the South Platte River @ North Platte are 363 cfs versus 207 cfs a year ago.

Rainfall:

Rainfall amounts come from NeRAIN which can be found at website <http://dnrdata.dnr.ne.gov/NeRAIN/index.asp?&>.

Location:	Aug 18 – Aug 31	May 1 – Aug 31
Arapahoe 6.9 mi. NW:	1.76	15.74
Bertrand 6.1 mi. SE:	1.83	22.72
Funk 6.7 mi. NNW:	0.96	16.91
Minden 0.855 mi. W:	1.25	14.50
Minden 8.8 mi. ESE:	2.10	16.13

NAWMN CROP ET INFORMATION

Additional Atmometer sites and Weather Station Data can be found at websites listed under "ET Information Sites" below.

7 Days = Aug 15-Aug 21 7 days = Aug 22-Aug 28

Inches of Crop Water Use (ET) = Evaporation x Kc

Atmometer Station: Arapahoe 7 Northwest (#1)
Evaporation: Week #1 = **1.40 inches** Week #2 = **1.80 inches**

Atmometer Station: Elwood 1 North (#2)
Evaporation: Week #1 = **1.10 inches** Week #2 = **1.40 inches**

Atmometer Station: Bertrand 4 Southwest (#4)
Evaporation: Week #1 = **1.10 inches** Week #2 = **1.30 inches**

Atmometer Station: Bertrand 6 Northeast (#5)
Evaporation: Week #1 = **1.00 inches** Week #2 = **1.10 inches**

Atmometer Station: Holdrege 5 Southeast (#8)
Evaporation: Week #1 = **1.20 inches** Week #2 = **1.40 inches**

Atmometer Station: Funk 7 Northeast (#10)
Evaporation: Week #1 = **1.00 inches** Week #2 = **1.20 inches**

Atmometer Station: Minden 5 North (#12)
Evaporation: Week #1 = **1.10 inches** Week #2 = **1.00 inches**

Atmometer Station: Minden 11 Southeast (#13)
Evaporation: Week #1 = **1.10 inches** Week #2 = **1.15 inches**

Crop Coefficients (Kc)			
Corn	Kc	Soybeans	Kc
Stage		Stage	
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

ET Information Sites

NAWMN Sites:
www.cnppid.com/ET_Map_location_page2011.htm
elkhorn.unl.edu/ETGage/
 Water Use Hotline: dial 1-800-993-2507
 CropWatch: cropwatch.unl.edu
 Central Irrigation District: www.cnppid.com

Websites of Interest

NRCS Nebraska www.ne.nrcs.usda.gov
 Central Irrigation District www.cnppid.com
 TBNRD Home Page tribasinrnr.org
 Farm Service Agency www.fsa.usda.gov
 UNL Cropwatch cropwatch.unl.edu
 UNL Extension www.extension.unl.edu/home
 UNL Water extension-water.unl.edu
 K-State SDI Website www.ksre.ksu.edu/sdi
 No-till On The Plains www.notill.org
 No-till Notes www.npnrd.org/notill.htm



During the snow.

Notice how the stalks left standing are capturing valuable off-season moisture within the field to be used for next years crop.



Notice how the stalks that have been removed are letting valuable moisture escape into the road ditch and benefiting the neighbor across the road.

After a little melt.

We have only this moment, sparkling like a star in our hand...and melting like a snowflake. Let us use it before it is too late.

- Marie Beynon

*** 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@ne.usda.gov. ***

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