

Tri-Basin Irrigator

Volume 09, Issue 10

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PROGRAM INFORMATION

CSP: CSP APPLICATIONS ARE CURRENTLY BEING RANKED. APPROVALS WILL TAKE PLACE LATER THIS FALL. APPLICANTS ACROSS THE TRI-BASIN NRD ARE COMPETING WITH APPLICANTS IN AN AREA THAT ROUGHLY RUNS ALONG THE PLATTE RIVER SOUTH TO THE NEBRASKA-KANSAS LINE FROM HAYES CENTER IN THE WEST TO SEWARD IN THE EAST.

EQIP, AWEP, WHIP, WRP, CREP, & CONT. CRP: APPLICATIONS FOR FUNDING ASSISTANCE AND/OR ANNUAL PAYMENTS CAN BE TAKEN ANYTIME AT YOUR LOCAL USDA SERVICE CENTER. -- EQIP AND AWEP APPLICATIONS FOR 2010 DOLLARS COULD BE RANKED THIS FALL SO GET YOUR APPLICATIONS IN OR STOP IN AND REVIEW/UPDATE YOUR EXISTING APPLICATIONS. NEWS RELEASES WILL BE ISSUED WHEN A SIGN-UP CUTOFF DEADLINE HAS BEEN ANNOUNCED.

NSWCP: APPLICATIONS FOR COST-SHARE ASSISTANCE CAN BE TAKEN ANYTIME AT YOUR LOCAL NRCS OFFICE. APPLICATIONS FOR IRRIGATION PRACTICES WILL BE LOOKED AT FOR APPROVAL AT THE DECEMBER, FEBRUARY, AND MAY TRI-BASIN NRD BOARD MEETINGS. FLOW METER AND SOIL MOISTURE SENSOR APPLICATIONS WILL BE LOOKED AT FOR APPROVALS MONTHLY.

ENERGY EFFICIENCY GRANT: APPLICATIONS CAN NOW BE TAKEN FOR 2010 MONEY. PRACTICES INCLUDE PIVOTS, SUBSURFACE DRIP SYSTEMS, UNDERGROUND PIPE, WELL & PUMP UPGRADES, PIVOT BRIDGES, ETC. CONTACT KELLEY MESSENGER WITH RURAL DEVELOPMENT AT 308-237-3118, EXT. 4.

CALENDAR OF EVENTS

- OCT 12:** COLUMBUS DAY – GOV'T OFFICES CLOSED
- OCT 13:** TBNRD BOARD MEETING, 1:30 PM
- NOV 2:** CNPPID BOARD OF DIRECTORS MEETING, 9 AM
- FEB 4, 2009:** HOLDREGE WATER CONFERENCE
- FEB 16, 2009:** HOLDREGE NO-TILL CONFERENCE (TENTATIVE DATE)
- FEB 23-24, 2009:** CENTRAL PLAINS IRRIGATION CONFERENCE IN KEARNEY, NE. EXCELLENT CONFERENCE TO LEARN ABOUT SUBSURFACE DRIP, PIVOTS, AND OTHER IRRIGATION RELATED TOPICS. WHEN POSTED, YOU CAN FIND INFORMATION AT [HTTP://WWW.KSRE.KSU.EDU/SDI/EVENTS/SDIEVENT.HTM](http://www.ksre.ksu.edu/sdi/events/sdievent.htm)

Year-End Useful Information and Tools!

- > **No-till On The Plains** is an excellent website for no-till information and upcoming events. Link to www.notill.org.
- > **NO-TILL@UNL.EDU** is a FREE e-mail list to share information about no-till with other no-tillers, university staff, etc. For sign-up information, contact Curtis Scheele at 308-995-6121, Ext. 3 or at email address curtis.scheele@ne.usda.gov.
- > **UNL Water** website has good information and links. Link to <http://water.unl.edu/cropwater>.
- > **K-State Mobile Irrigation Lab** website has good irrigation information and useful tools. Goto <http://www.ksre.ksu.edu/mil/>.
- > **Energy Estimator** tools can be used to estimate irrigation, nitrogen, and tillage energy costs. Goto <http://www.nrcs.usda.gov/technical/energy/index.html>.

ACROSS THE TRI-BASIN NRD

FINAL Tri-Basin Irrigator for 2009!!!

The fifth year of the Tri-Basin Irrigator has come to a close. I hope that you received helpful information during this past irrigation season to help you with your irrigation water management program. If you wish to provide feedback, comments, or suggestions, contact Curtis Scheele at 308-995-6121, Ext. 3 or email him at curtis.scheele@ne.usda.gov.

Stage of Growth:

Corn (R6-Black Layer to Harvest stage):

Soybeans (Harvest stage):

Irrigation:

Soybean harvest was well underway until some rainy drizzly weather slowed it down this week. A few have started corn harvest. The crop year has been a cooler one. I recall NTV saying July was the 6th to 7th coolest on record. I don't recall any real hot windy days. I do recall high humidities. Outside of the hail that went through, I don't recall many thunderstorm or tornado watches/warnings this year.

2009 started with a full soil moisture profile (100%). There have been some nice timely rains again this year. As a result, close monitoring of the soil moisture and irrigating accordingly could have paid some dividends.

Across the TBNRD average rainfall from May 10th thru Sept. 21st was approximately 14.25 inches (13 sites off NeRAIN). Let's figure 13.50 inches of effective rain (95%). I know a couple of large rain events where runoff occurred. However, the majority of the NRD had really good effective rains overall.

To end the crop season, one should utilize 60% of the moisture in the soil profile to a 4 foot depth at crop maturity. For a Holdrege Silt Loam soil, that equates to 5.5 inches when starting the year at 100% moisture. With 13.5 inches of effective rain during the crop season and utilizing 5.5 inches of soil moisture at years end, that equates to 19.0 inches of FREE water for the crops. Figure corn and soybeans use about 24 inches. That leaves a net of 5.0 inches to be added to the crop. A 90% efficient pivot means pumping 5.6 inches of water.

2009 was an opportune year to utilize soil moisture at the end of the year, allow the crop dry down sooner, harvest sooner, and let off-season moisture replenish the soil profile for the 2010 season. Closely monitoring last irrigation can save dollars by not turning on the system one last time and harvesting sooner. The above calculations give us a feel for what kind of a year it's been overall.

Lake McConaughy is at 50.7% capacity versus 35.2% a year ago. Inflows to Lake McConaughy are at 1269 cfs versus 744 cfs a year ago. Flows on the South Platte River @ North Platte are at 503 cfs versus 120 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:	Sept 24 – Oct 7	May 1 – Oct 7
Arapahoe 6.9 mi. NW:	0.64"	17.71"
Bertrand 6.1 mi. SE:	0.57"	13.95"
Funk 12.5 mi. N:	0.40"	20.36"
Wilcox 0.3 mi. SW:	0.90"	17.19"
Minden 4.4 mi. NW:	0.52"	15.32"

NAWMDN CROP ET INFORMATION

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

7 Days = Sept 21-Sept 27 7 days = Sept 28-Oct 4

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

- Atmometer Station: Arapahoe 7 Northwest (#5)
Evaporation: **Week #1 = NA inches** **Week #2 = NA inches**
- Atmometer Station: Elwood 1 East (#6)
Evaporation: **Week #1 = NA inches** **Week #2 = NA inches**
- Atmometer Station: Bertrand 4 Southwest (#7)
Evaporation: **Week #1 = NA inches** **Week #2 = NA inches**
- Atmometer Station: Bertrand 6 Northeast (#12)
Evaporation: **Week #1 = NA inches** **Week #2 = NA inches**
- Atmometer Station: Holdrege 5 Southeast (#9)
Evaporation: **Week #1 = NA inches** **Week #2 = NA inches**
- Atmometer Station: Funk 6 Northeast (#8)
Evaporation: **Week #1 = NA inches** **Week #2 = NA inches**
- Atmometer Station: Minden 11 Southeast (#2)
Evaporation: **Week #1 = NA inches** **Week #2 = NA inches**
- Atmometer Station: Minden 5 North (#3)
Evaporation: **Week #1 = NA inches** **Week #2 = NA inches**

		<u>Crop Coefficients (Kc)</u>	
		<u>Corn</u>	<u>Soybeans</u>
<u>Stage</u>	<u>Kc</u>	<u>Stage</u>	<u>Kc</u>
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, Bl., Dough	1.10	Beg. Seed (R5)	1.10
Beg. Dent	1.10	Full Seed (R6)	1.10
Full Dent	0.98	Beg. Mat. (R7)	0.90
Black Layer	0.60	Full Mat. (R8)	0.20
Full Maturity	0.10	Mature	0.10

ET Information Sites

- NAWMDN Sites:
www.cnppid.com/ET_Map_location_page.htm
elkhorn.unl.edu/ETGage/
 Water Use Hotline – dial 1-800-993-2507
 Central Irrigation District: www.cnppid.com
 UNL Cropwatch – cropwatch.unl.edu/weather/gdd-et.html

Websites of Interest

- NRCS Nebraska www.ne.nrcs.usda.gov
- Central Irrigation District www.cnppid.com
- TBNRD Home Page tribasinprd.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.oznet.ksu.edu/sdi
- No-till On The Plains www.notill.org
- No-till Notes www.npnrd.org/notill.htm



Wishing you a safe harvest and many blessings during the off-season!!!

“I can’t do it” never yet accomplished anything: “I will try” has accomplished wonders.

- George P. Burnham

*** 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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