

Water Quantity Enhancement Activity – WQT04 – Regional Weather Networks for Irrigation Scheduling



Regional Weather Networks for Irrigation Scheduling

Crop evapotranspiration (crop ET) information from a regional weather network is utilized as a part of the irrigation water management plan for irrigation scheduling. Water use is planned and adjustments in application rates and timing are made using the regional weather network data.

Land Use Applicability

This enhancement is applicable on cropland and pastureland

Benefits

The use of data from regional weather networks can improve a farmer's estimate of evapotranspiration from irrigated crops. This information combined with local rainfall data and monitoring of soil moisture can significantly improve the accuracy of irrigation timing and application rates. Benefits include reduced aquifer depletion, and reduced runoff and deep percolation, both of which reduce movement of agrichemicals from farm fields to aquifers, lakes, and streams.

Criteria for Regional Weather Networks for Irrigation Scheduling

This enhancement requires subscription to a regional weather network that supplies crop ET values for irrigation scheduling. The crop ET information from the network must be used as part of the irrigation water management plan to match water application rates and timing to the needs of the crops and soils.

Documentation Requirements

- Documentation of subscription to a regional weather network.
- An irrigation water management plan showing the use of the crop ET data from a weather network in irrigation scheduling.



United States Department of Agriculture
Natural Resources Conservation Service

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Additional State Criteria

Implementation of this enhancement requires compliance with the Nebraska Practice Documentation Requirements for Conservation Practice Standard, Irrigation Water Management (PDR-449)

http://efotg.nrcs.usda.gov/references/public/NE/PDR_449_Irrig_Water_Mgt.pdf

Participant Acknowledgement Statement:

I agree to apply this enhancement under the terms and conditions of my CSP contract and understand the requirements of the activity.

Tract	Field(s)	Acres	Ac in irrigation water management plan using the crop ET

I certify that I have a subscription to a regional weather network that supplies crop ET values for irrigation scheduling on the field(s) listed in the table above meets these specifications including the following documentation as applicable:

1. Nebraska Planning Sheet 17 has been completed
2. Available water holding capacities of the soils are listed (on map)
3. Crop Data – Description of ET (crop water usage) and seasonal crop water use on the Nebraska Planning Sheet 17
4. Gross Irrigation Water Application planned for each field is listed on NE Planning Sheet 17
5. The rainfall during the growing season; irrigation water application; and irrigation scheduling information (crop water use or soil moisture monitoring) is documented for each field listed (NE-ENG-79A & NE-ENG-80)
6. Maps/inventory of irrigation distribution system including soils and soil descriptions
7. Irrigation season ending submittals to NRCS
 1. A completed record keeping worksheet (ie: NE-ENG-80, 79A or equivalent)
 2. Field notes relating to the implementation and operation of the IWM plan

Certified by: _____ **Date:** _____