August 2, 2011 Irrigation Management Podcast

Hello, this is Gary Zoubek, UNL Extension Educator from York, Nebraska. Today is Monday August 1. The crops in eastern Nebraska continued to make good progress last week with both the early and later planted corn now past the silking/tasseling stage with some of the silks almost completely brown. Soybeans are in the R3 stage or beyond.

This past week the ETgage at the Agricultural Research Development Center near Mead dropped 1.40 inches compared to 1.50 inches last week. High temperatures for the week varied from 82° F to 94° F. The humidity was up from last week ranging from 75% to 94% and averaging at 81%.

With the corn crop now at V16 or silking and beyond and soybeans at R3 or beyond, the crop coefficient is 1.1 for both crops and will remain there for several weeks. To estimate crop water use, we multiply the crop coefficient of 1.1 by 1.40, the drop shown by the ETgage. We get a total of 1.55 inches for the week or an average of .22 inch per day, down from last week's .24 inch per day.

In York the average temperature was a degree cooler, it was 3% more humid, and the ETgage dropped 1.25 inches for the week. That's an ET of 1.38 inches for the week or .20 inch per day.

The field at the ARDC near Mead—a fine sandy loam—received .89 inches of rain this past week. The Watermark sensors today are reading 56, 72, 30, and 0 compared to last week's 54, 45, 14 and 0 at the one-, two-, three-, and four-foot depths. That's a depletion of 2.51 inches, or 46%, so we're irrigating this field today.

In the York area we received between .75 and .90 inch of rain and had an estimated crop water use of 1.40 inches for the week. One field has sensor readings of 57, 70, 65 and 20 at the one-, two-, three-, and four-foot depths. Since it's a Hastings Silt Loam soil, that is a depletion of 1.54 inches or 23%. With the forecast for potential rain at the end of the week, we'll monitor the field to make a decision about the timing of the next irrigation. Hopefully we'll get some of Mother Nature's help in the form of some rain.

The other fields I'm monitoring have had rainfall and an irrigation event this past week and sensor readings indicate depletions of less than 1 inch in the corn fields and a little over one inch in the soybean field that has not been irrigated. We'll wait until next week to make irrigation decisions on these fields.

As I mentioned last week, deciding when to irrigate an individual field depends on several factors, including well capacity, the producer's tolerance for risk, and the weather forecast. I've found that it's always easier to irrigate than it is to not irrigate, especially if your neighbors are irrigating, but is this the best economical and environmental approach?

Our goal in managing our irrigation is to leave some room for potential rainfall while at the same time not limiting potential yields. The better the soils, the more flexibility we have in waiting for that next rain rather than irrigating. That's why it's important to know your soil type when using Watermark Sensors. Our recommended trigger for irrigating Hastings silt loam soil is 90 while for

the fine sandy loam at the ARDC it's 50. You can see why knowing your soil type is important to managing your irrigation.

For more information about these and other irrigation management tools, go to our CropWatch or Nebraska Ag Water Management Network webpages!

Until next week, thanks for listening. This has been Gary Zoubek, UNL Extension Educator.