

July 25, 2011 Irrigation Management Podcast

Author: Gary Zoubek, Extension Educator

Hello, this is Gary Zoubek, UNL Extension Educator from York, Nebraska. Today is Monday July 25. The crops in eastern Nebraska have continued to make good progress this week with both the early and later planted corn now silking with some of the silks beginning to turn brown. Early planted soybeans are now in the R2-R3 stage.

This past week the ETgages at York and at the Agricultural Research Development Center near Mead dropped 1.50 inches compared to 1.30 inches last week. High temperatures for the week varied from 88° F to 98° F. The humidity was a little less than last week ranging from 62% to 84%, averaging at 75%.

When using an ETgage, we estimate the crop water use by multiplying the crop coefficient for the current stage of growth by the drop in the ETgage reading. With the crop now at V16 or silking, the crop coefficient is 1.1 and will remain there for several weeks.

To estimate crop water use, we multiply the crop coefficient of 1.1 by 1.50, the drop shown by the ETgage. We get a total of 1.65 inches for the week or an average of 0.24 inches per day. For later planted corn in the V12 stage we would multiply the crop coefficient of 0.88 by the drop in the ETgage of 1.50 inches for an estimated crop water use of 1.32 inches or 0.19 inches per day.

The field at the ARDC near Mead is on a fine sandy loam and last week was irrigated and received 0.53 inches of rain. The Watermark sensors today are reading 54, 45, 14 and 0 at depths of 1, 2, 3, and 4 feet deep. That's a depletion of 1.62 inches so we'll monitor the field the next couple of days and make a decision about the next irrigation.

In the York fields with Hastings silt loam soils, one field received 0.90 inches of rain and the Watermark sensors were reading 29, 46, and 14 Sunday evening after which they received 0.70 more inches of rain, so we'll continue monitoring the field and see what happens this week.

A second field received 0.90 inches of rain and was irrigated with 0.50 inches to make wheel tracts for the first irrigation. The sensor readings Sunday evening were 44, 68, 53 and 21 for a depletion of 0.92 inches, but like the previous field, it received 0.70 more inches of rain, so we'll monitor the field and see what the readings are the end of this week.

The final field I'm monitoring has readings of 80, 26, 25 and 34 at depths of 1, 2, 3 and 4 feet. That's a total depletion of 0.70 inches so we'll continue to monitor the field and take a reading at the end of this week and make a decision as to when to irrigate.

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 that the economical and environmental thing to do?

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.

University of Nebraska-Lincoln CropWatch