

July 17, 2011 Irrigation Management Podcast

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Hello, this is Gary Zoubek, UNL Extension Educator from York, Nebraska. Today is Monday July 17. Crops in eastern Nebraska have continued to make good progress this week with the early planted corn now silking and tasseling and early planted soybeans in the R2-R3 stage.

This past week the ETgages at York and at the Agricultural Research Development Center near Mead dropped 1.30 inches and 1.35 inches respectively. High temperatures for the week varied from 77° F to nearly 97° F. Humidities were about the same as last week, ranging from 73% to 84% and averaging 81%.

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 the crop water use, we multiply the crop coefficient of 1.1 by 1.35, the drop shown by the ETgage. We get a total of 1.49 inches for the week or an average of 0.21 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 1.35 inches for an estimated crop water use of 1.19 inches or .17 inches per day.

The field at the ARDC near Mead is on a fine sandy loam so we irrigated it last week and then received 0.31 inches of rain. The water mark sensors today are reading 29, 13, and 1 at the one-, two-, and three-foot depths. That's a depletion of 0.42 inches, so we'll monitor the field and make a decision about the next irrigation toward the end of this week.

In the York area with Hastings Silt Loam soils, in two fields the sensors were reading near 70 in the top foot and in the 50s in the second and third foot levels. Depletions ranged from about 1 inch to a little over 1.55 inches. The third field I'm monitoring had a depletion of only 0.5 inch.

Irrigation Decision Making

I'm not sure when these fields will be irrigated. 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.

SoyWater.unl.edu

If you aren't sure of the soil type in your soybean fields, check out Soywater, the new soybean irrigation management tool. This site has links so you can input your Watermark sensor readings to estimate your soil water depletion for various soil types. It also includes a link to help identify soil types in your fields. Check it out at soywater.unl.edu.

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.