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Irrigation update and crop water use 8/4 – 8/10

Crop water use increased this week compared to last week due to rising temperatures**.** In Southwest Michigan, irrigation is actively being used to meet the water demands of both corn and soybeans; especially now, during their critical growth stages and dry spells.

Corn is currently at the R3 stage (milk stage/early grain fill), which is still a critical period for water. However, water use will begin to decline at full dent. **Soybeans** are most sensitive to water stress between the R3 and R6 stages (from pod development through seed fill). Look for signs of stress or disease pressure to adapt your irrigation strategies. To reduce the risk of disease caused by constant leaf wetness, it's recommended to apply larger amounts of water less frequently rather than applying small amounts more often. Irrigation Scheduling Tools can help estimate crop water needs and decide timing and application.

Week of August 4 - 10				
Crop	**Growth stage**	**Constantine**	**Entrican**	**Hart**
	Reference ET	1.34	1.31	1.29
Corn	V14	1.47	1.44	1.42
	VT, Silk, Blister, Dough, Begin Dent	1.47	1.44	1.42
	Full dent	1.34	1.31	1.29
Soybeans	R2 Full Bloom	1.47	1.44	1.42
	R3 Begin Pod / R4 Full pod	1.47	1.44	1.42
	R5 Begin seed / Full seed	1.47	1.44	1.42

The table above presents estimated crop water use for various field crops across three locations in Michigan. This data helps irrigation management decisions by showcasing potential crop evapotranspiration, calculated based on reference evapotranspiration and crop coefficients for each crop growth stage. It is crucial to note that crop water use values vary across regions due to differences in weather conditions, growth stages, agronomic practices and soil properties. When using these values for irrigation scheduling, be mindful that they assume all applied irrigation water will be utilized by the plants without any loss.

Additionally, these values do not account for any precipitation that may occur during the week of calculation. Reference evapotranspiration data was obtained from Enviroweather, which also offers a model for determining potential crop evapotranspiration. To access this tool, visit Enviroweather, click on "Crops," select your crop and use the potential evapotranspiration tool by choosing your nearest weather station, the latest date of interest and other crop information.