

Irrigation update and crop water use 7/21 – 8/3

Crop water use declined this week compared to last week, and much of Southwest Michigan benefited from timely rainfall. However, both corn and soybeans are currently in critical growth stages, so it's essential to scout for signs of stress or disease pressure before deciding whether to irrigate or not. For **corn** the most critical period occurs between VT (tasseling) and R3 (milk stage and early grain fill). **Soybeans** are most sensitive to water stress during the R3 to R6 stages (pod development through seed fill). Irrigation Scheduling Tools can help estimate crop water needs and decide timing and application.

If irrigation is truly needed, it's best to apply larger amounts less frequently, rather than small amounts more often to avoid disease progression.

Estimated weekly crop water use for field crops in Michigan (in/week)				
Week of July 28 - August 3				
Crop	Growth stage	Constantine	Entrican	Hart
	Reference ET	1.18	1.30	1.27
Corn	V12	1.18	1.30	1.27
	V14 and V16	1.30	1.43	1.40
	VT, Silk, Blister, Dough, Begin Dent	1.30	1.43	1.40
Soybeans	R1 Beginning Bloom	1.18	1.30	1.27
	R2 Full Bloom	1.30	1.43	1.40
	R3 Begin Pod / R4 Full pod	1.30	1.43	1.40

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.