

Estimated weekly crop water use for field crops in Michigan (in/week)				
Week of August 26 - September 1				
Crop	Growth stage	Constantine	Entrican	Hart
Corn	Silk, Blister, Dough, Begin dent	1.32	1.17	1.10
	Full dent	1.20	1.06	1.00
	Black layer	0.79	0.70	0.66
	Full maturity	0.13	0.12	0.11
Soybeans	R3 and R4 Begin pod/Full pod	1.32	1.17	1.10
	R5 and R6 Begin seed/Full seed	1.32	1.17	1.10
	R7 Begin Mature	1.20	1.21	1.0
	R8 95% Pods Mature	0.24	0.21	0.20

As corn reaches the black layer stage, its water use drops by about 40%, resulting in approximately 0.12 inches of daily evapotranspiration this week. Soybeans at the first yellow pod stage or entering R7 will have a daily water use of around 0.17 inches under this week's conditions. To avoid water stress, it's recommended to maintain at least 50% of available soil moisture for both soybeans and corn. If your field has white mold, try to make large applications. Typically, late August and early September weather reduces the need for late-season irrigation. However, this year, Michigan is under a heat advisory with hot to excessive temperatures with minimal rainfall, making precise irrigation scheduling and crop monitoring crucial. Avoid waiting for physical signs of crop stress to add water. Late-planted crops in the area may still require significant water well into September.

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. Also, these values do not account for any precipitation during the calculation week. For more tools and information on irrigation scheduling tools, please refer to: [Irrigation Scheduling Tools](#).

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.