

Irrigation update and crop water use

Temperatures have been warmer than last week, and a continued warming trend is expected into next week. As temperatures rise, both crop water use, and soil moisture depletion will begin to increase compared to last week. Estimated crop water use for **corn** and **soybeans** remains relatively low for now, as plants are still small with limited root development and water uptake.

Wheat, however, is at its **peak water demand** during flowering, requiring over 1.15 inches of water per week. This week’s rainfall was not sufficient to meet those needs. Timely and well-managed irrigation is essential at this stage to reduce disease risk, support high yields, and prepare conditions for establishing a second crop. For more information, check out our latest article on [early season irrigation for small grains and forages](#).

As we move into warmer weather next week, continue monitoring local weather and soil moisture to adjust your irrigation strategies accordingly. Tools like [Irrigation Scheduling Tools](#), can help estimate crop water needs and decide timing and application. If you’d like to learn more about these tools, contact [Angie Gradiz](#).

Estimated weekly crop water use for field crops in Michigan (in/week)				
Week of May 26 - June 1				
Crop	Growth stage	Constantine	Entrican	Hart
Corn	VE	0.10	0.12	0.11
	V2	0.21	0.23	0.22
	V4	0.21	0.23	0.22
Soybeans	VC Cotyledon	0.21	0.23	0.22
	V1 1st Node	0.31	0.35	0.33
	V2 2nd Node	0.52	0.58	0.55
Wheat	Leaf elongation	0.94	1.04	1.03
	Jointing	1.08	1.18	1.18
	Boot / Heading / Flowering / Grain fill	1.15	1.27	1.26

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.