

Irrigation update and crop water use

Estimated crop water use for **corn** and **soybeans** is beginning to rise as plant development progresses. V6 corn is now using nearly twice as much water as V4 corn, and water demand will continue to increase with rising temperatures and evaporative demand. For soybeans, closely monitor growth stages, as water use varies throughout development. Continue to monitor soil moisture within the active root zone and check the forecast for upcoming rainfall events.

Wheat is currently in the grain fill stage, requiring approximately 1.19 inches of water per week (around 0.17 inches per day). Evaluate recent and expected rainfall to determine if irrigation is needed. Maintaining adequate soil moisture during the grain fill stage is critical for maximizing grain yield but also monitoring for potential disease under wet conditions.

As temperatures rise next week, continue tracking local weather, particularly precipitation and soil moisture levels, to adjust your irrigation strategies accordingly. Tools like [Irrigation Scheduling Tools](#), can help estimate crop water needs and decide timing and application.

Estimated weekly crop water use for field crops in Michigan (in/week)				
Week of June 9 - June 15				
Crop	Growth stage	Constantine	Entrican	Hart
	Reference ET	1.08	1.09	0.99
Corn	V2	0.22	0.22	0.20
	V4	0.22	0.22	0.20
	V6	0.42	0.43	0.39
Soybeans	V1 1st Node	0.32	0.33	0.30
	V2 2nd Node	0.54	0.55	0.50
	V3 3rd Node	0.65	0.65	0.59
Wheat	Jointing	1.11	1.12	1.10
	Boot / Heading / Flowering / Grain fill	1.19	1.20	1.18
	Soft Dough	1.08	1.09	1.07

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.