

Soybean water site offers irrigation info

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A new University of Nebraska-Lincoln website offers soybean growers an easy-to-use tool for real-time estimates of crop water use so they can optimize irrigation efficiency and energy use.

SoyWater, available [here](#), calculates daily crop water use and soil water balance so soybean growers no longer have to hand-calculate this information.

SoyWater also helps producers make better irrigation scheduling decisions and minimizes the amount of irrigation water needed for optimal crop production which in turn will reduce seasonal water withdrawals from the Ogallala Aquifer and lessen energy costs for pumping.

While SoyWater is not an absolute indicator of when to irrigate, it is a decision-aid tool that producers can use along with their skills and expertise to decide when to irrigate and how much to apply.

SoyWater asks a few, simple questions specific to the field and then provides daily estimates of crop water use and soil water status.

Users log on and after just a few mouse clicks, SoyWater provides a table of real-time, actual daily weather data for computing daily crop water use from planting (or emergence) to the day before producer log-in. It then uses historical weather data to compute daily crop water use from the day of log-in to the day of expected crop maturity. The daily weather data is from a weather station of the Automated Weather Data Network maintained by the High Plains Regional Climate Center.

Based on this information, SoyWater will highlight the projected date when the first, or next, irrigation should be scheduled and projects the dates of specific soybean vegetative and reproductive growth stages.

SoyWater can be useful to both rainfed and irrigated soybean growers interested in predicting the date of a vegetative or reproductive growth stage. This information also can be useful when

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making other crop management decisions for a particular soybean field, such as when the effectiveness of a herbicide or fungicide depends on application at a specific growth stage.

Minimal input is required. Some information that is needed includes the Global Positioning Satellite coordinates for the field, soybean planting or emergence date, maturity group of the soybean variety and soil texture of the field.

SoyWater generates a table of data, including crop water use, daily soil water status, crop growth stage and suggested irrigation dates from this data.

Other irrigation-related applications also are available on the SoyWater website.

The website was designed by a UNL group of post-doctoral research associates, faculty and staff.

For more information about the website, including additional information on how to use the website, visit [Crop Watch, UNL Extension's crop production newsletter](#) .