



# Vegetable Crop Update

A newsletter for commercial potato and vegetable growers prepared by the University of Wisconsin-Madison vegetable research and extension specialists

No. 19 – August 11, 2018

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## Calendar of Events

**November 27-29, 2018** – Processing Crops Conference & MWFPA Annual Convention, Wisconsin Dells, WI

**January 15-17, 2019** – Wisconsin Agribusiness Classic, Alliant Energy Center, Madison, WI

**January 27-29, 2019** – Wisconsin Fresh Fruit & Vegetable Conference, Kalahari Conference Center, Wisconsin Dells, WI

**February 5-7, 2019** – UWEX & WPVGA Grower Education Conference, Stevens Point, WI

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**Current Severity Value (Late Blight) Accumulations (R.V. James, UW-Plant Pathology/R.V. James Designs, S.A. Jordan, & J. Hammel, UW-Plant Pathology):** A DSV of > 18 indicates the threshold for late blight risk and triggers preventative fungicide application. **Red** text in table below indicates threshold has been met/surpassed. “-“ indicates that information is not yet available. Blitecast and P-Day values for actual potato field weather from Grand Marsh, Hancock, Plover, and Antigo are now posted at the UW Veg Path website at the tab “P-Days and Severity Values.”

[www.plantpath.wisc.edu/wivegdis/contents\\_pages/pday\\_sevval\\_2018.html](http://www.plantpath.wisc.edu/wivegdis/contents_pages/pday_sevval_2018.html)

Asterisks indicate values generated from weather data sourced from NOAA (link below to interactive tool for accessing site specific DSVs). <https://agweather.cals.wisc.edu/vdifn/maps>

Location	Planting Date	50% Emergence	Disease Severity Value	Date of DSV Generation
<b>Antigo</b>	Early 5/12	5/28	74*	8/10
	Mid 5/25	6/7	66*	8/10
	Late 6/9	6/22	53*	8/10
<b>Grand Marsh</b>	Early 5/1	5/15	259	8/10
	Mid 5/15	5/28	252	8/10
	Late 6/1	6/12	232	8/10
<b>Hancock</b>	Early 5/2	5/16	75*	8/10
	Mid 5/17	5/30	70*	8/10
	Late 6/1	6/14	61*	8/10
<b>Plover</b>	Early 5/7	5/18	72	8/10
	Mid 5/20	6/1	61	8/10
	Late 6/2	6/15	57	8/10

**WI Potato Disease Risk Updates:** All commercial potato plantings have surpassed 18 DSVs and with presence of the disease in WI, I recommend that fields of susceptible potato and tomato be routinely receiving preventative fungicide applications to limit disease. 7-day programs should be appropriate

unless field is proximal to known infection. With close proximity to infection, programs should shift to 5-day intervals with fungicides known to have both curative and anti-sporulant activities.

**National Late Blight Updates:** <http://usablight.org>. Late blight was confirmed in Adams and Marquette Counties, WI this past week. Additionally, the disease was also confirmed in Henderson County, IL. All samples tested from WI and IL, to date, are of the US-23 genotype. The Ottetail MN tomato late blight report from 2 weeks back was not examined further for genotype/strain. Prior to that time, reports had come from PA on tomato & potato, NY on tomato, and FL on tomato and potato. The clonal lineages/strain types are not yet known for the PA reports. Prior to this, and the previously reported NY tomato late blight case, most cases reported to the usablight website in 2018 have been the US-23 pathogen genotype. US-23 has been the predominant genotype in Wisconsin, and across the U.S., in recent years. US-23 can still generally be managed well with use of phenylamide fungicides such as mefenoxam. However, a potato sample from northeastern FL was sent to my lab earlier this spring and was the US-8 genotype.

A list of registered fungicides for late blight in potato for Wisconsin can be found in past Vegetable Crop Updates Newsletter #6 (May 20, 2018) and at link below:

<http://www.plantpath.wisc.edu/wivegdis/pdf/2018/2018%20Potato%20Late%20Blight%20Fungicides.pdf>

Further information on fungicides and other vegetable crop management inputs in the 2018 Commercial Vegetable Production in Wisconsin guide (A3422): <http://learningstore.uwex.edu/Assets/pdfs/A3422.pdf>

**No downy mildew on cucurbits in our UW Hancock Agricultural Research Station sentinel plots this past week.** Multiple reports of downy mildew in the Great Lakes region this past week. The cucurbit downy mildew reporting and forecasting site <http://cdm.ipmpipe.org/> indicated new confirmations of downy mildew in AL, DE, IN, MA, MI, NC, NJ, NY, OH, ON Canada, PA, VA, and WV on various cucurbit crops during the past week. In 2018 so far, the site has documented confirmations in AL, DE, FL, GA, IN, KY, MD, MI, NC, NJ, PA, SC, TN, and VA on primarily cucumber, acorn squash, and cantaloupe. A map showing forecasted movement of the downy mildew pathogen from active sources of inoculum is provided, below. No risk of movement to WI at this time. **I have also been watching several basil downy mildew sentinel plots this summer and I have seen none of this disease so far this year.**



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Tubers are in their late bulking stage now. I dug some Russet Burbank tubers yesterday on a commercial field (planted in the second week of May). Tuber shape is good (only a couple misshaped tubers), and the largest tuber is about 10 oz heavy/ 5.5" long. Some concerns from the growers are that temperatures (especially night temperatures) have been higher than ideal for the tubers to maintain their full bulking

potential over the past week (Figure 1), and ET values have been higher than 0.2'' over the last three days (Figure 1). Typically, day temperature higher than 85°F and night temperature higher than 60°F without any rainfall during the late growing season can slow down potato tubers' bulking and possibly penalize the yield. The other note from Figure 1 is that daily ET values have been well correlated with the daily soil max temperatures after canopy closure is achieved. This could be used as a future reference for irrigation management.

In response to these hot August days, some folks including our Hancock Ag Station have been irrigating with 0.45'' to 0.5'' every other day to keep up with the crop water demand (Figure 2). Our tensiometer readings have shown that this is a good strategy to keep the soils moist and keep the crops not water stressed.

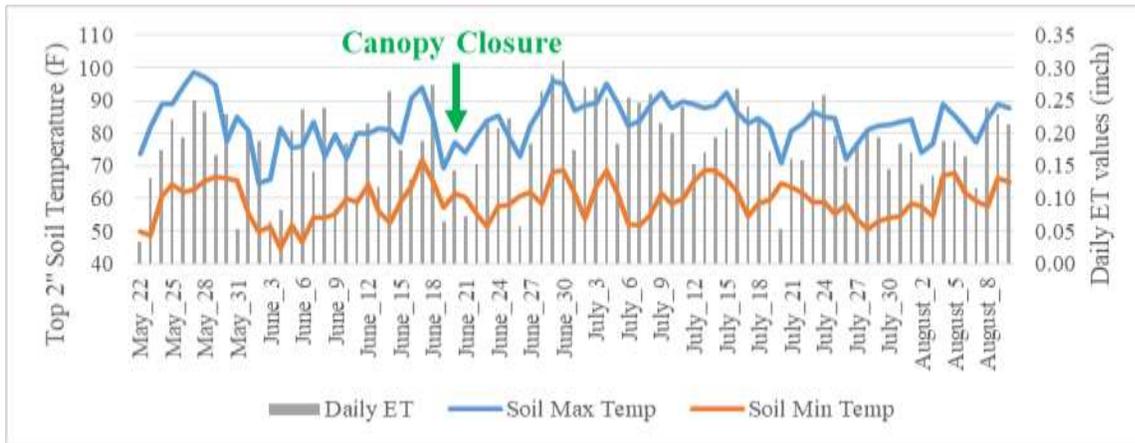


Figure 1. 2018 HARS daily soil max and min temperatures and daily ET values (as of 8/10)

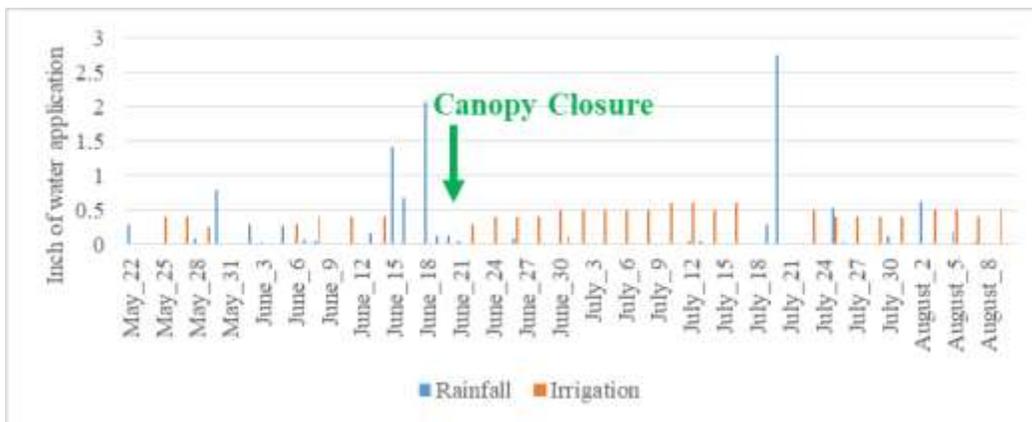


Figure 2. 2018 HARS rainfall and irrigation records (as of 8/10)