



Vegetable Crop Update

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

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Calendar of Events

July 21, 2016 – UWEX Langlade County – Antigo Research Station Field Day
July 28, 2016 – UW-Hancock Agricultural Research Station Field Day
February 7-9, 2017 – UWEX/WPVGA Grower Ed. Conf., Stevens Point, WI

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Current P-Day (Early Blight) and Severity Value (Late Blight) Accumulations (R.V. James, UW-Plant Pathology/R.V. James Designs): A P-Day value of ≥ 300 indicates the threshold for early blight risk and triggers preventative fungicide application. 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 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.” http://www.plantpath.wisc.edu/wivegdis/contents_pages/pday_sevval_2016.html

Location	Planting Date	50% Emergence	P-Day Cumulative	Disease Severity Value	Date of DSV Generation	Increase in DSV from 7/8
<i>Antigo</i>	Early 5/1	6/2	336	50	7/15	14
	Mid 5/18	6/7	301	40	7/15	14
	Late 6/3	6/21	198	25	7/15	14
<i>Grand Marsh</i>	Early 4/15	5/22	431	52	7/15	8
	Mid 5/1	5/27	394	46	7/15	8
	Late 5/15	6/3	335	35	7/15	8
<i>Hancock</i>	Early 4/18	5/24	401	54	7/15	8
	Mid 5/3	5/29	361	41	7/15	8
	Late 5/20	6/5	304	32	7/15	8
<i>Plover</i>	Early 4/20	5/25	393	60	7/15	14
	Mid 5/5	5/30	350	45	7/15	14
	Late 5/20	6/6	294	36	7/15	14

Summary: Disease Severity Values (DSVs) and Late Blight Blitecast: We now have all potatoes in WI at 50% emergence or greater and are generating forecast values for all potatoes. All growing areas have reached threshold for late blight management. Generally, conditions were moderately promotive for late blight in this past week with 7 day accumulations of 8-14 Disease Severity Values. Recall the maximum number of DSVs that one day can accumulate is 4. Where thresholds of 18 DSVs have been met, routine, protection of susceptible tomato and potato crops is recommended.

Wisconsin commercial conventional fungicides for late blight control can be found at: <http://www.plantpath.wisc.edu/wivegdis/pdf/2016/Potato%20Late%20Blight%20Fungicides%202016.pdf>

P-Days indicating early blight risk are now at or above threshold for all potatoes, with the exceptions of late plantings in Antigo and Plover areas. Lesions are being observed in the lower canopies of potato crops in central and southern WI. We have not noted much brown spot in potatoes, so far, this year. Over the past two weeks, I saw very little progress of early blight symptoms in our UW-Hancock ARS foliar early blight fungicide trials.

National Late Blight Updates (www.usablight.org). As far as I am aware, no late blight has been detected in WI as of 7/15/16. There was 1 state reporting a late blight confirmation in this past week (7/8-7/15): Queen Anne’s County, Maryland (tomato, US-23). Earlier reports have come from AR, MD, CA, FL, MI, SC, VA, and WA. The closest detection to WI so far has been in south central MI (US-23). US-23 has predominated cases of this disease in the US so far this year. West coast has had US-8 and US-11 as well. Disease has been confirmed on both potato and tomato. Careful monitoring for and management of volunteers and solanaceous weeds is critical – along with preventive management of the main potato crop with use of effective fungicides. Summary table of recent pathogen strains and their character is provided below.

<i>Phytophthora infestans</i> genotype/strain (from recent detections in the US)	Mefenoxam/metalaxyl resistance status	Mating type and other comments on character (* indicates host preference)
US-8	Resistant	A2; infects tomato and potato*
US-11	Resistant	A1; infects tomato and potato
US-23	Sensitive (some insensitivity)	A1; infects tomato* and potato
US-24	Resistant	A1; infects tomato and potato*

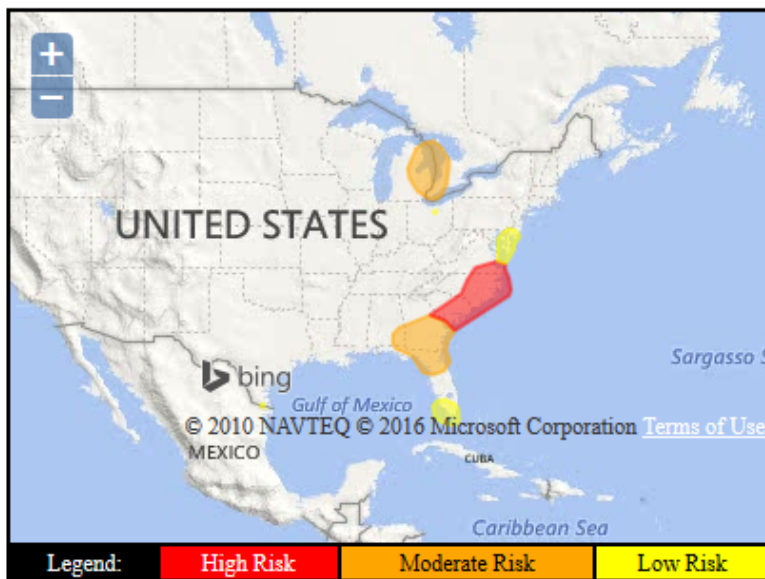
If you are suspect late blight, please submit for free diagnostic testing through the UWEX Plant Disease Diagnostic Clinic or through my laboratory directly. Dr. Brian Hudelson in the clinic offers rather quick late blight confirmations. My program can do this, similarly, for commercial producers. Further my lab will genotype the pathogen in order to better prescribe best management strategies.



Current map of late blight confirmations in USA (7/15/16). Blue counties indicate that there was a late blight detection >1 week ago. Red counties indicate that there was a recent detection <1 week ago. Sourced from usablight.org

Cucurbit Downy Mildew Updates (<http://cdm.ipmpipe.org/>). In the past week there were 4 states reporting new confirmations of cucurbit downy mildew in the US: DE, MI, NC, and NJ. Typically, we have seen downy mildew show up on cucurbits in years when incidence has occurred in southwestern Michigan. Previous confirmations were made in AL, FL, GA, MD, NC, OH, SC, TX, and Ontario, Canada. No risk of movement of the pathogen to Wisconsin production region at this time, rather to the north and east of current field confirmations (figure below from <http://cdm.ipmpipe.org/current-forecast>).

Risk prediction map for Day 3: Sunday, July 17



HIGH Risk for cucurbits in central and eastern SC, eastern NC, and southeast VA. Moderate Risk for northern FL, southeast AL, the southern half of GA, southern ON, and eastern MI. Low risk for cucurbits in southern FL, eastern MD, DE, and southern NJ. Minimal Risk to cucurbits elsewhere.

Forecaster: TK at NCSU for the Cucurbit *ipm*PIPE - 2016