



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 – October 1, 2023

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- Potato and tomato early blight and late blight disease updates
- Cucurbit downy mildew updates

Calendar of Events:

November 28-30, 2023 – Midwest Food Producers Assoc. Processing Crops Conference, Kalahari Convention Center
January 9-11, 2024 – Wisconsin Agribusiness Classic, Alliant Energy Center, Madison, WI
January 21-23, 2024 – Wisconsin Fresh Fruit and Vegetable Growers Conference, Kalahari Resort, Wisconsin Dells, WI
January 25-26, 2024 – Organic Vegetable Production Conference, UW Madison Division of Extension (Online)
February 2-3, 2024 – Organic Vegetable Production Conference, UW Madison Division of Extension, Alliant Energy Center, Madison, WI
February 6-8, 2024 – UW-Madison Div. of Extension & WPVGA Grower Education Conference & Industry Show, Stevens Point, WI

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Please note that this will be the last newsletter issued for our 2023 growing season production updates. We will periodically share a newsletter with information and resources. Have a safe harvest season!

Late blight of potato/tomato. Late blight was not identified in tomato or potato plantings in Wisconsin during the 2023 field production season. This is the second year with this status. Certainly, the dry and hot weather limits conditions favorable to late blight, but we can't underestimate good prevention of disease through appropriately timed fungicides. All locations are at or have surpassed the threshold of DSV 18 over this past week. Prevention of late blight should still be considered even this late in the season since airborne sporangia can move into fields (despite senescing foliage) and make their way down to tubers in the soil to create tuber infection. The usablight.org website (<https://usablight.org/map/>) indicated limit reports of late blight over this past 2023 growing season. So far, all characterizations of the late blight pathogen identified in North America this growing season have resulted in the US-23 type. Fungicides for the management of late blight in tomato and potato crops are provided: <https://learningstore.extension.wisc.edu/products/commercial-vegetable-production-in-wisconsin>. A specific list of fungicides for potato late blight in Wisconsin was also offered in a special report shared via email on July 28. <https://vegpath.plantpath.wisc.edu/wp-content/uploads/sites/210/2023/08/2023-Potato-Late-Blight-Fungicides.pdf>

Current P-Day (Early Blight) and Disease Severity Value (Late Blight) Accumulations. Many thanks to Ben Bradford, UW-Entomology; Stephen Jordan, UW-Plant Pathology; and our grower collaborators for supporting this effort. A Potato Physiological Day or P-Day value of ≥ 300 indicates the threshold for early blight risk and triggers preventative fungicide application. A Disease Severity Value or DSV of ≥ 18 indicates the threshold for late blight risk and triggers preventative fungicide application. Red text in table indicates threshold has been met or surpassed. Weather data used in these calculations is from weather stations that are placed in potato fields in each of the four locations, as available. Data from: <https://agweather.cals.wisc.edu/vdifn> will be used to supplement as needed for missing data points and for additional locations (indicated with *). Data are available in graphical and raw formats for multiple locations at: <https://vegpath.plantpath.wisc.edu/dsv/>.

	Planting Date		50% Emergence Date	Disease Severity Values (DSVs) <i>through 9/30/2023</i>	Potato Physiological Days (P-Days) <i>through 9/30/2023</i>
Spring Green*	Early	Apr 3	May 9	25	1138
	Mid	Apr 17	May 12	25	1117
	Late	May 10	May 23	25	1048
Arlington*	Early	Apr 5	May 10	20	1149
	Mid	Apr 20	May 15	20	1111
	Late	May 12	May 25	20	1051
Grand Marsh	Early	Apr 5	May 10	25	1091
	Mid	Apr 20	May 15	25	1057
	Late	May 12	May 25	25	1005
Hancock	Early	Apr 10	May 17	31	1057
	Mid	Apr 22	May 19	31	1051
	Late	May 14	May 28	31	1012
Plover	Early	Apr 14	May 19	35	1043
	Mid	Apr 24	May 20	35	1040
	Late	May 19	May 29	35	989
Antigo	Early	May 1	May 28	40	927
	Mid	May 15	June 3	40	890
	Late	June 7	June 23	40	747
Rhinelander*	Early	May 7	June 1	18	897
	Mid	May 18	June 5	18	862
	Late	June 9	June 24	18	739

In addition to the potato field weather stations, we have the UW Vegetable Disease and Insect Forecasting Network tool to explore P-Days and DSVs across the state (<https://agweather.cals.wisc.edu/vdifn>). This tool utilizes NOAA weather data. In using this tool, be sure to enter your model selections and parameters, then hit the blue submit button at the bottom of the parameter boxes. Once thresholds are met for risk of early blight and/or late blight, fungicides are recommended for optimum disease control. Fungicide details can be found in the 2023 Commercial Vegetable Production in Wisconsin Guide, Extension Document A3422. <https://learningstore.extension.wisc.edu/products/commercial-vegetable-production-in-wisconsin>

Cucurbit Downy Mildew. The Cucurbit Downy Mildew forecasting webpage (<https://cdm.ipmpipe.org/>) is not forecasting the movement of the pathogen, but is offering reporting of findings of cucurbit downy mildew from the US (map below shows new reports this past week in MD, KY, and SC). **To date, there have been no reports of cucurbit downy mildew here in WI.** Depending upon the status of the crop, preventative treatment of cucumber and melon crops (clade 2 downy mildew) may have some justification. <https://vegpath.plantpath.wisc.edu/2023/08/28/update-15-aug-27-2023/>

