



Vegetable Crop Update

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

No. 17 – September 8, 2024

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- Cucurbit downy mildew updates

Calendar of Events:

December 3-5, 2024 – Midwest Food Producers Assoc. Processing Crops Conference, Kalahari Convention Center

January 13-14, 2025 – Wisconsin Agribusiness Classic, Alliant Energy Center, Madison, WI

February 4-6, 2025 – UW-Madison Div. of Extension & WPVGA Grower Education Conference & Industry Show, Stevens Point, WI

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Current P-Day (Early Blight) and Disease Severity Value (Late Blight) Accumulations will be posted at our website and available in the weekly newsletters. Thanks to Ben Bradford, UW-Madison Entomology for supporting this effort and providing a summary reference table: <https://agweather.cals.wisc.edu/thermal-models/potato>. 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. Data from the modeling source: <https://agweather.cals.wisc.edu/vdifn> are used to generate these risk values in the table below. I've estimated early, mid-, and late planting dates by region based on communications with stakeholders. These are intended to help in determining optimum times for preventative fungicide applications to limit early/late blight in WI.

	Planting Date		50% Emergence Date	Disease Severity Values (DSVs) through 9/7/2024	Potato Physiological Days (P-Days) through 9/7/2024
Spring Green	Early	Apr 3	May 9	62	1003
	Mid	Apr 17	May 12	62	986
	Late	May 10	May 25	57	885
Arlington	Early	Apr 5	May 10	30	1004
	Mid	Apr 20	May 15	30	973
	Late	May 12	May 25	28	894
Grand Marsh	Early	Apr 5	May 10	54	971
	Mid	Apr 20	May 15	54	942
	Late	May 12	May 25	47	869
Hancock	Early	Apr 10	May 17	69	926
	Mid	Apr 22	May 21	67	897
	Late	May 14	June 2	62	816
Plover	Early	Apr 14	May 18	56	924
	Mid	Apr 24	May 22	52	891
	Late	May 19	June 7	48	776
Antigo	Early	May 1	May 24	58	818

Rhinelanders	Mid	May 15	June 1	58	782
	Late	June 1	June 15	45	678
	Early	May 7	May 25	31	808
	Mid	May 18	June 8	30	711
	Late	June 2	June 16	30	665

Late blight of potato/tomato. Late blight diagnostics continue to be available at no cost to WI growers and gardeners. Dr. Brian Hudelson of our UW Plant Disease Diagnostic Clinic and Dr. Amanda Gevens of UW-Potato & Vegetable Pathology can offer confirmation of the pathogen. Dr. Gevens will also offer strain typing of the pathogen. The usablight.org website (<https://usablight.org/map/>) indicates reports of late blight from the US so far in 2024 including NY (US-23), MI (US-23), ME (US-23), PA, and TN. Please keep in mind that the site is not comprehensive. Outside of this site, I'm aware of an August 29 confirmation of potato late blight in Minnesota and our single WI late blight report on tomato from August 28. Previously, there were 2 Ontario Canada confirmations of potato and tomato late blight (US-23), and a Florida late blight sample from potato (March 2024).

Late season late blight control in potato. Late blight does not appear to be widespread in WI – there have been no other reports in WI since last week's tomato finding on August 28, 2024. <https://vegpath.plantpath.wisc.edu/2024/08/28/late-blight-tomato-dane-co-wi/> It's important to remain vigilant in managing the potato crop for late blight through senescence and harvest especially for crops destined for storage.

We accumulated NO Blitecast Disease Severity Values over the past week in WI. An updated listing of fungicides for WI potato late blight management for 2024 can be found at the link below. Base protectants such as chlorothalonil and mancozeb offer broad-spectrum control of fungal and oomycete (water mold – like late blight) pathogens. <https://vegpath.plantpath.wisc.edu/wp-content/uploads/sites/210/2022/07/2024-Potato-Late-Blight-Fungicides.pdf>

Early blight of potato. All areas of production have reached the threshold for the application of foliar fungicides to limit early blight. This disease was unusual this year with a typical timeline for onset, but slower progression than most years due to high temperatures in July. A late season 'flush' of early blight was noted in many central and southern WI potato fields. I suspect that cooler temperatures with moisture in the late season promoted the uptick of activity. <https://vegpath.plantpath.wisc.edu/diseases/potato-early-blight/>

Cucurbit Downy Mildew: To date, downy mildew field findings in the US, including WI from nearly 2 weeks ago (8/29), have been caused by Clade 2 - cucumber and cantaloupe strain type. <https://cdm.ipmpipe.org/>

In Wisconsin, no additional reports have come in over the past week. No cucurbit downy mildew was noted on our cucurbit sentinel plot at the UW Hancock Agricultural Research Station when I last looked on September 6, 2024. The sentinel plot has 7 different cucurbit types out in the open field without fungicides.

Management information can be sourced here: <https://vegpath.plantpath.wisc.edu/2022/07/03/update-10-July-3-2022/>