



Vegetable Crop Update

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

No. 12 – July 17, 2022

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Calendar of Events:

July 28, 2022 – UW-Rhinelander Field Day
November 29-December 1, 2022 – Midwest Food Producers Assoc. Processing Crops Conference, Kalahari Convention Center
February 7-9, 2023 – UW-Madison Div. of Extension & WPVGA Grower Education Conference & Industry Show, Stevens Point, WI

Amanda Gevens, Chair, Professor & Extension Vegetable Pathologist, UW-Madison, Dept. of Plant Pathology, 608-575-3029, Email: gevens@wisc.edu, Lab website:

<https://vegpath.plantpath.wisc.edu/>

Current P-Day (Early Blight) and Disease Severity Value (Late Blight) Accumulations. Thanks to Ben Bradford, UW-Madison Entomology; Stephen Jordan, UW-Madison Plant Pathology; and our grower collaborator weather station hosts for supporting this disease management effort again in 2022. 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 will come from weather stations that are placed in potato fields in each of the four locations, once available. Data from an alternative modeling source: <https://agweather.cals.wisc.edu/vdifn> will be used to supplement as needed. Data are available for each weather station at: <https://vegpath.plantpath.wisc.edu/dsv/>.

Location	Planting Date		50% Emergence Date	Disease Severity Values (DSVs) 7/16/2022	Potato Physiological Days (P-Days) 7/16/2022
Grand Marsh	Early	Apr 5	May 10	34	504
	Mid	Apr 20	May 15	34	463
	Late	May 12	May 25	34	405
Hancock	Early	Apr 7	May 12	24	451
	Mid	Apr 22	May 17	24	417
	Late	May 14	May 26	22	373
Plover	Early	Apr 7	May 15	59	443
	Mid	Apr 24	May 20	59	409
	Late	May 18	May 27	58	374
Antigo	Early	May 1	Jun 3	15	330
	Mid	May 15	June 15	11	256
	Late	June 10	June 24	11	186

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 (stations are not situated within potato fields). 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.

We have reached thresholds for preventative fungicide treatment in potatoes to manage early blight in all potato plantings in Grand Marsh, Hancock, Plover, and the earliest planted potatoes in Antigo areas of Wisconsin. Potatoes should be on a preventative fungicide program with effective disease management selections to limit early blight.

Grand Marsh, Hancock, and Plover potato fields have exceeded late blight disease risk thresholds and should be on preventative programs with effective fungicide selections to control late blight. Thresholds have not yet been met in the Antigo area. A fungicide list for potato late blight in Wisconsin was provided in last week's newsletter and is available here: <https://vegpath.plantpath.wisc.edu/2022/07/03/update-10-july-3-2022/>

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 2022 Commercial Vegetable Production in Wisconsin Guide, Extension Document A3422, linked here: <https://learningstore.extension.wisc.edu/products/commercial-vegetable-production-in-wisconsin>

According to usablight.org there have not been recent diagnoses of late blight in tomato or potato crops in the US. For this year, there were just 2 reports entered back in March in southern Florida (US-23 clonal lineage/strain type).

Cucurbit Downy Mildew: During this past week, cucurbit downy mildew was confirmed on MA and AL, NH, NJ, OH, PA, NY, CT, OH, NC, VA, PA, NC, AL, NC, and SC. Previously in this growing season, the disease was confirmed in Alabama, Florida, Georgia, South Carolina, North Carolina, Pennsylvania, and New Jersey. No findings of cucurbit downy mildew in our Wisconsin-based sentinel plots in Dane County. Red counties below indicate recent reports of cucurbit downy mildew.



<https://cdm.ipmpipe.org/>

There are no confirmations of downy mildew on cucurbits in our region at this time, nor risk of spread of the pathogen to Wisconsin.

As a reminder, the pathogen is now known to have two ‘strains’ for clade types. The type (Clade 2) which infects cucumber, can also infect melon. Due to fungicide resistance within the downy mildew pathogen population, especially in Clade 2, selection of fungicides is important. Management of cucurbit downy mildew requires preventative fungicide applications as commercial cultivars are generally susceptible to current strains (Clades) of the pathogen. Management information can be sourced here: <https://vegpath.plantpath.wisc.edu/2022/07/03/update-10-july-3-2022/>