



Vegetable Crop Update

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



No. 20 – August 26, 2019

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Calendar of Events

December 3-5, 2019 – Midwest Food Producers Association Annual Convention/Processing Crops Conference, Wisconsin Dells, WI

January 26-28, 2020 – WI Fresh Fruit & Vegetable Growers Conference, Wisconsin Dells, WI

February 4-6, 2020 – UW-Madison Div. of Extension & WPVGA Grower Education Conference, Stevens Point, WI

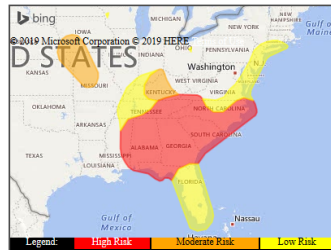
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Cucurbit downy mildew: Vernon (cucumber; 8/20) and Dane County (butternut squash and pumpkin, 8/20) WI have confirmed downy mildew during this past week. While downy mildew doesn't directly infect fruit, cucurbits that require several more weeks in the field could lose foliage, creating little/no sun protection for fruit resulting in sun scald. Additionally, plants infected with downy mildew often become more susceptible to other diseases esp. on fruit of late seasoning maturing hard winter squashes and pumpkins. Protection of cucurbits with use of effective fungicides is recommended at this time. **Please visit our 2019 WI Commercial Vegetable Production Guide** for further information pertaining to the fungicides listed in this newsletter.

<https://learningstore.uwex.edu/Assets/pdfs/A3422.pdf> The cucurbit downy mildew reporting and forecasting site <http://cdm.ipmpipe.org/> indicated new confirmations of downy mildew in AL, DE, KY, MA, MI, NY, OH, PA, and WI this past week. In 2019 so far, the site has documented confirmations in AL, DE, FL, GA, IN, MA, MD, MI, MO, NC, NJ, NY, PA, RI, SC, TN, and VA on various cucurbits. Keep watchful of this disease in cucurbit crops. Pictures of cucurbit downy mildew symptoms are shown below on leaf surface (left) and underside (right).

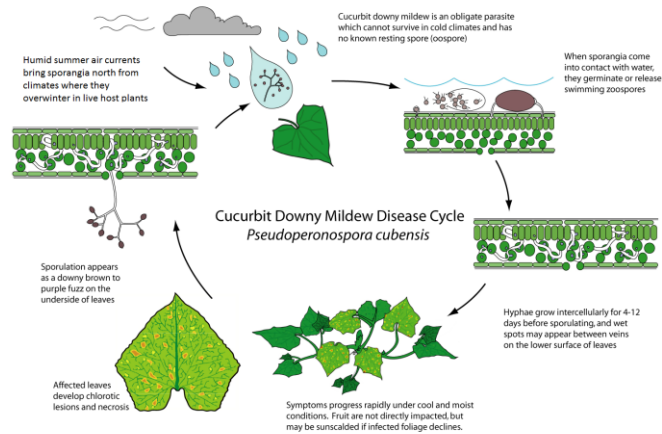


Risk prediction map for Day 3: Sunday, August 25



HIGH Risk in eastern MS, the FL panhandle, AL, GA, eastern and south-central TN, SC, far south-west VA, and all but north-central NC. Moderate Risk for cucurbits in central KY, central and north-west MO, and southwest IA. Low risk for cucurbits in the FL peninsula, north-central and western TN, western KY, southwest IN, north-central NC, southeast VA, eastern MD, DE, NJ, southern CT, and Long Island. Minimal Risk to cucurbits elsewhere.

Forecaster: TK at NCSU for the Cucurbit ipmPIPE - 2019



Above: Cucurbit Downy Mildew IPM Pipe forecast from 8/25/19 on left. Cucurbit downy mildew disease cycle on right.

Potato & Tomato Late Blight Updates: Reports of late blight from both potato and tomato have been confirmed in a few additional counties this past week. Cool nights have promoted moisture in the lower canopy for extended periods of time, making for prime conditions for the late blight pathogen. Given the location of many of the lesions seen in potato and/or tomato this past week, it is important to look down into the lower canopies to thoroughly assess the crops for late blight. To date, all of the late blight samples have been of the US-23 clonal lineage.

Date	County	Host Crop	Clonal Lineage
7/17/2019	Wood	Potato	US-23
8/2/2019	La Crosse	Tomato	US-23
8/6/2019	Portage	Potato	US-23
8/15/2019		Potato	US-23
8/22/2019		Potato	US-23
8/13/2019	Monroe	Tomato	US-23
8/14/2019	Adams	Potato	US-23
8/14/2019	Waushara	Potato	US-23
8/15/2019		Potato	US-23
8/19/2019		Tomato	US-23
8/14/2019	Vernon	Tomato	US-23
8/19/2019	Crawford	Potato	US-23
8/24/2019	Sauk	Potato	To Be Determined

Most isolates of US-23 can be managed with phenylamide fungicides such as mefenoxam and metalaxyl. It is critical that susceptible potatoes and tomatoes in and around the counties of reports be treated with a combination of antispurulant and protectant fungicides to limit reproduction of the pathogen and new infections. **Antispurulants include: Orondis, Forum, Curzate, Tanos, Ariston, Previcur, Revus, and Ridomil.** Outside of WI, late blight was confirmed in NY and PA during this past week on potato in NY and tomato in PA. Late blight fungicides registered for use in Wisconsin are available at the UW-Potato & Vegetable Pathology website or at link: <https://wivegdis.wiscweb.wisc.edu/wp-content/uploads/sites/210/2019/06/2019-Potato-Late-Blight-Fungicides.pdf>

P-Days are currently over 300 for all potato across locations and emergence dates. Foliar fungicide applications are recommended to manage further spread and vine decline which can result in negative tuber size and quality. Starting on page 219 in the A3422 Commercial Vegetable Production Guide for

Wisconsin please find listing of registered fungicides for early blight caused by *Alternaria solani* and brown spot caused by *Alternaria alternata*.

<https://cdn.shopify.com/s/files/1/0145/8808/4272/files/A3422.pdf>

Current P-Day (Early Blight) and Disease Severity Value (Late Blight) Accumulations (Many thanks to Ben Bradford, UW-Madison Entomology; Stephen Jordan, John Hammel, & Samuel Meyer, UW-Madison Plant Pathology). 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 indicates threshold has been met/surpassed. Weather data used in these calculations comes from stations that are in potato fields. Data are available in graphical and raw data formats for each weather station at: <https://wivegdis.plantpath.wisc.edu/dsv/>

<i>Location</i>	<i>Planting Date</i>	<i>Emergence Date (50%)</i>	<i>Disease Severity Values (DSVs) 8/25/19</i>	<i>Potato Physiological Days (P-Days) 8/25/19</i>
<i>Grand Marsh</i>	Early Apr 10	May 20	125	752.4
	Mid May 1	June 1	123	675.2
	Late May 20	June 9	121	616.71
<i>Hancock</i>	Early Apr 10	May 22	77	742.06
	Mid Apr 25	May 27	76	706.16
	Late May 15	June 8	74	616.64
<i>Plover</i>	Early Apr 22	May 27	116	714.85
	Mid May 1	June 1	116	680.45
	Late May 29	June 13	114	590.23
<i>Antigo</i>	Early May 14	May 29	63	604.05
	Mid May 24	June 8	63	597.14
	Late Jun 1	June 20	60	515