



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 – August 9, 2014

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Calendar of Events

August 12-14 – Farm Technology Days, Stevens Point, WI
August 21 – 1:00PM Antigo Field Day, Antigo, WI
October 29-30 – Hancock Ag Research Station Fresh Market Potato Variety Trial Open House (Jeff Endelman), Hancock, WI

Vegetable Disease Update – Amanda J. Gevens, Assistant Professor & Extension Vegetable Plant Pathologist, UW-Madison, Dept. of Plant Pathology, 608-890-3072 (office), Email: gevens@wisc.edu. Veg Pathology Webpage: <http://www.plantpath.wisc.edu/wivegdis/>



Late blight updates: No new Wisconsin counties reporting late blight in this past week. In summary, late blight US-23 was confirmed on tomato in Milwaukee County (30 Jul) and US-8 and US-23 were confirmed on potato from different fields in Portage County (18, 25 Jul). US-8 is an A2 mating type strain with resistance to mefenoxam/metalaxyl fungicides. US-23 is an A1 type with sensitivity to mefenoxam/metalaxyl fungicides. Nationally, in the past week, there

have been several new late blight reports from MI (5 counties all potato), NY (tomato), OR (potato), PA (tomato), and VT (potato). Recent reports are indicated on map above. All *P. infestans* isolates that have been genotyped from field samples in 2014, thus far, have been of the US-23 genotype/strain, with the exception of the Portage Co. WI US-8. Reports from >one week ago include FL, IN, MA, ME, MI, NC, NH, NY, PA, VA, and WI. Details can be found at <http://www.usablight.org/>. The website provides location (by county) of positive reports of late blight in the U.S. and further information on the disease. Map was downloaded at 2:30PM 8/9/14.

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. NA indicates that information is not yet available as emergence has yet to occur. 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_2014.html

<i>Location</i>	Planting Date	50% Emergence	P-Day Cumulative	Disease Severity Value	Date of DSV Generation	Increase in DSV from last week (8/2)
<i>Antigo</i>	Early 5/20	6/9	462	60*	8/8	5
	Mid 5/27	6/16	414	60*	8/8	5
	Late 6/6	7/2	278	29*	8/8	5
<i>Grand Marsh</i>	Early 4/20	5/19	635	106*	8/8	19
	Mid 5/4	6/1	548	98*	8/8	17
	Late 6/3	6/23	371	63*	8/8	17
<i>Hancock</i>	Early 4/24	5/20	670	55*	8/8	8
	Mid 5/8	6/2	571	52*	8/8	9
	Late 6/3	6/24	382	34*	8/8	9
<i>Plover</i>	Early 4/21	5/20	598	107*	8/8	15
	Mid 5/5	6/1	514	104*	8/8	15
	Late 6/5	6/24	337	75*	8/8	15

Please note that we have surpassed the threshold for late blight DSVs (18) in all monitored areas for all plantings of potatoes. Please note: asterisks on the DSVs indicate that I have revised the value as displayed in the SureHarvest Blitecast daily output that is found at the UW-Vegetable Pathology website. In some cases, the number of hours of relative humidity above 90% was being issued as a value greater than 24 - giving unusually high DSVs for the individual day. I assigned a maximum DSV of 4 to such dates.

Preventive fungicide application for late blight control may include base protectants such as chlorothalonil or mancozeb, or include a base protectant tank-mixed with one of the reduced risk fungicides with specific activity in controlling late blight. Be mindful of the season-long limitations for use of chlorothalonil and mancozeb fungicides. Bravo and Echo products do have the WI special registrations for long season potato use of up to 16 lb active ingredient per acre. Other chlorothalonils do not have this special allowance and their use must be limited to 11.25 lb active ingredient per acre. Mancozeb use is limited to 11.2 lb active ingredient per acre. For further information on specific fungicide rates and activities, please find the 2014 updated list of potato fungicides for WI at the link below.

<http://www.plantpath.wisc.edu/wivegdis/pdf/2014/June%206%202014.pdf>

Further details on registered fungicides for WI vegetables can be found in the Univ. of WI Commercial Vegetable Production in WI Guide A3422, <http://learningstore.uwex.edu/assets/pdfs/A3422.PDF>.

P-Days and early blight management: P-Days are over the 300 threshold for potatoes of all planting dates at all locations, with the exception of late planted potatoes in Antigo. Recall, the P-Day 300 threshold is an indicator for timing the initial fungicide application for management of early blight. Early blight lesions are active now in lower canopies of earliest and some mid-planted potatoes in southern and central Wisconsin. We plan to offer our Potato Early Blight

foliar fungicide trial up for visitors on Aug 18 (Mon) and Aug 19 (Tues) at the Hancock Agricultural Research Station. Please contact me if you're interested in visiting to view efficacy of new programs (gevens@wisc.edu).

Cucurbit downy mildew updates: No downy mildew has been identified on cucurbit crops in Wisconsin, to date. In the past week, DE, MD, NC, and SC reported cucurbit downy mildew, as depicted in red on the map below. In summary this year, AL, FL, GA, KY, LA, MD, MI, NC, NJ, SC, TN, and TX have reported cucurbit downy mildew across multiple cucurbit hosts. I will be keeping tabs on disease reports in the region and will provide updates in this newsletter. Based on the disease forecast system, there is no likelihood of spore movement from current sites of confirmation to WI. The website: <http://cdm.ipmpipe.org/> offers up to date reports of cucurbit downy mildew and disease forecasting information.



Locations of recent (red) and older (green) reports of cucurbit downy mildew in the U.S. in 2014. Map sourced from <http://cdm.ipmpipe.org/> from 3:15PM August 9, 2014.

Further information on cucurbit downy mildew: <http://learningstore.uwex.edu/Assets/pdfs/A3978.pdf>

Management information for cucurbit downy mildew can be found in UW Vegetable Crop Updates – Disease Supplemental #8 from 2013: <http://www.plantpath.wisc.edu/wivegdis/pdf/2013/Disease%20Supplement%208%20Aug%2013%202013.pdf>

Onion and basil downy mildew detected in Wisconsin: We confirmed downy mildew in onion and basil crops in Wisconsin earlier this summer. While the diseases have the same name and create similar symptoms, the pathogens are specific to the crop type. Weather conditions have favored downy mildews and sporulation can be profuse, creating high disease pressure for area plants. While fungicides are not often effective or desired for downy mildew control in basil. Fungicides are necessary in commercial onions to protect the health of the crop. Downy mildew can rapidly cause defoliation of leaves. The base protectant application of mancozeb can be very effective in limiting onion downy mildew. Additional, reduced risk, fungicides which have enhanced activity against downy mildew include Pristine, Ridomil, Inspire Super, and Quadris Top. In trials conducted by Dr. Mary Hausbeck at Michigan State University, these

reduced risk fungicides provided excellent control of mildew in onions when applied in alternation with mancozeb.

UW-Extension/Madison Plant Disease Diagnostic Clinic (PDDC) Update, *Brian Hudelson, Ann Joy, Joyce Wu, Tom Hinsenkamp, and Catherine Wendt, Plant Disease Diagnostics Clinic*

The PDDC receives samples of many plant and soil samples from around the state. The following diseases/disorders have been identified at the PDDC from August 2, 2014 through August 8, 2014.

PLANT/SAMPLE TYPE	DISEASE/DISORDER	PATHOGEN	COUNTY
VEGETABLES			
Cucumber	Root Rot	<i>Pythium</i> sp.	Dane
Melon	Anthracoise	<i>Colletotrichum orbiculare</i>	Dane
Tomato	Septoria Leaf Spot	<i>Septoria lycopersici</i>	Dodge, Rock, Sauk
	Verticillium Wilt	<i>Verticillium</i> sp.	Rock

For additional information on plant diseases and their control, visit the PDDC website at pddc.wisc.edu.