Vegetable Crop Update

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

No. 22– July 14, 2015

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Calendar of Events

July 15 – UW-Hancock ARS Field Day, 12:30PM, Hancock, WI ***TOMORROW***
July 17 – Rhinelander State Farm Field Day, Lelah Starks Elite Found. Seed Farm, Rhinelander, WI
August 19 – UW-Arlington ARS Agronomy/Soils Field Day, 8AM, Arlington, WI
August 20 – UWEX Langlade County Airport Field Day, Antigo, WI
August 25-27 – Wisconsin Farm Technology Days, Statz Bros., Inc. Farm, Sun Prairie, WI
September 1 – UW-Arlington ARS Organic Agriculture Field Day, Arlington, WI

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Veg Pathology Webpage: http://www.plantpath.wisc.edu/wivegdis/.

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 available. 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_2015.html

Location	Planting Date	50% Emergence	P-Day Cumulative	Disease Severity Value	Date of DSV Generation	Increase in DSV from 7/7
Antigo	Early 4/25	5/25	**320**	**58**	7/14	6
	Mid 5/5	6/1	**320**	**58**	7/14	6
	Late 5/15	6/15	**222**	**32**	7/14	6
Grand Marsh	Early 4/5	5/10	**463**	**78**	7/14	8
	Mid 4/15	5/15	**453**	**77**	7/14	8
	Late 5/1	5/21	**419**	**75**	7/14	8
Hancock	Early 4/10	5/15	**457**	**66**	7/14	4
	Mid 4/20	5/18	**432**	**63**	7/14	4
	Late 5/5	5/25	**399**	**58**	7/14	4
Plover	Early 4/15	5/20	**458**	**79**	7/14	5
	Mid 4/25	5/22	**418**	**76**	7/14	5
	Late 5/10	5/30	**356**	**60**	7/14	5

Potato Early Blight Preventive Management: P-Days have surpassed threshold of 300 in all potato plantings Wisconsin, with the exception of late plantings in Antigo. We are seeing early blight in lower potato plant canopies in commercial production fields of southern and central Wisconsin. Areas in which this threshold has been reached should be on a preventive program for control of early blight, especially on highly susceptible cultivars in areas of concentrated potato production. On May 8th, I provided a summary of fungicides for control of early blight in conventional potato in this newsletter, please find the link to this information below.
http://www.plantpath.wisc.edu/wivegdis/pdf/2015/May%208,%202015.pdf

Late Blight Updates: The DSV 18 threshold has been met/surpassed for all plantings and locations. This threshold indicates that environmental conditions have been met to promote late blight disease activity. Accumulation of DSVs over the last 7 days has been low-moderate, however, the intense weather with rainfall that we have had in some areas, created favorable conditions for late blight.

In Wisconsin: Late blight has been detected in a commercial potato field in central Marquette County today, on July 14, 2015. We are working on the pathogen genotype and will report this information through the newsletter as soon as possible. This is the fourth county to confirm the disease in Wisconsin. Previous reports are listed below.

1st was northern Adams on 23 June
2nd was western Waushara on 8 July
3rd was southern Wood on 8 July
4th was central Marquette on 14 July

The genotype/strain of the late blight in all previously reported counties was US-23 which is sensitive to phenylamide fungicides such as mefenoxam and metalaxyl.

Across the nation: There were new detections of late blight in NY (potato), Ontario, Canada (tomato), VT (potato), and WI (potato, US-23) this past week www.usablight.org. To date, nationally, there have been confirmations of late blight in FL (US-23), CA (US-11), NC (strain not yet determined), TX (not reported on usablight.org/strain not yet identified), WA, MD, NJ, NY (US-23), VT, and WI (US-23).

Fungicides are critical for protection of potato and tomato crops at this time.
There is not one recommended fungicide program for all late blight susceptible potato (and tomato) fields in Wisconsin. Fungicide selections may vary based on type of inoculum introduction, proximity to infected fields, crop stage, late blight strain, and other diseases that may be in need of management. Please see UWEX Veg Crop Updates article on fungicide selections from June 5 at link below.
http://www.plantpath.wisc.edu/wivegdis/pdf/2015/June%205,%202015.pdf or a listing of 2015 WI potato late blight fungicides (with modes of action – updated July 9, 2015):
http://www.plantpath.wisc.edu/wivegdis/pdf/2015/July%209,%202015.pdf

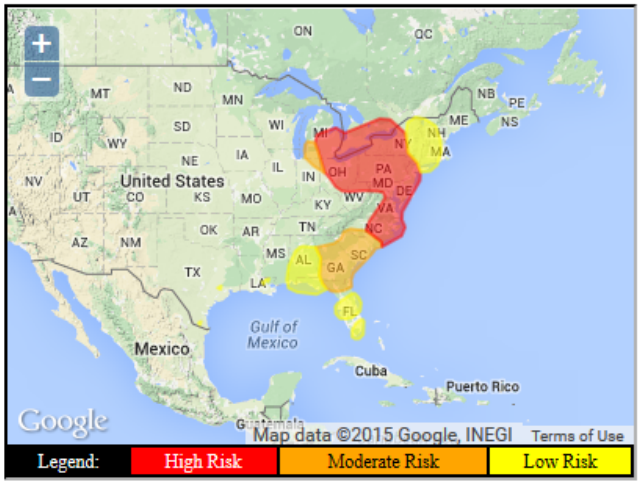
If you suspect/detect late blight, have the disease confirmed (free diagnostics through my lab and the UWEX Plant Disease Diagnostic Clinic) and we can genotype for further information on the nature of the pathogen.

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.

Cucurbit downy mildew updates: We have had no reports of downy mildew on cucurbits here in WI at this time. Downy mildew has been confirmed in AL, DE, MD, MI, NC, NJ, NY, OH, ON, Canada, PA, SC, TN, and TX in the past week. Prior reports of the disease have been confirmed in AL, FL, GA, LA, MD, MI, NC, NY, OH, ON Canada, SC, TX, and VA. For more information, visit: http://learningstore.uwex.edu/Assets/pdfs/A3978.pdf

Map of recent (red counties) and past (green counties) reporting cucurbit downy mildew in the U.S. through the http://cdm.ipmpipe.org/ website. The map was sourced at 1:16PM on July 14, 2015. No forecasted movement of the pathogen to WI at this time. However, for July 14 the moderate risk area is encroaching WI's southeast border (see forecast map below). **We need to keep an eye out for this disease on cucurbits. Weather conditions have been prime for infection.**

Risk prediction map for Day 2: Tuesday, July 14



HIGH Risk for east-central and eastern NC, eastern and northern VA, MD, DE, NJ, PA, central and western NY, northern WV, OH except the southwest, southern ON, and central and eastern lower MI. Moderate Risk to cucurbits in northern FL, GA but the far north, SC, south-central and southeast NC, southwest MI, and northeast IN. **Low Risk for central and southern AL, the FL panhandle, central and southern FL, eastern NY, Long Island, and New England except ME and far eastern MA.** Minimal Risk to cucurbits otherwise.

The Wed July 14, 2015 Hancock Agricultural Research Station Potato Research Field Day Agenda is included below, from station Superintendent, Dr. Felix Navarro.

Hancock Ag. Research Station Annual Potato Field Day

"Towards 100 Years of Progress in Agricultural Research"

Potato Research Field Day Agenda

July 15, 2015 12:30 – 5:30 PM

Storage Research Facility Portion 12:30 – 1:10 pm

12:30 - 12:40 Dwight Mueller & Troy Fishler – 'Welcome & Introductions-Storage Research Facility News'

12:40 – 12:50 Jed Colquhoun (Field R3 West side) – 'Weed management'

12:50 - 1:00 Amanda Gevens – 'Updates on storage disease control'

1:00 – 1:20 Paul Bethke and Phil Townsend– 'What can remote sensing do for you and what is needed'

Field Research Reports 1:35-3:50pm

1:35 - 1:45 Russ Groves (K17 East side) – 'IPM & IRM for vegetable insect pests'

1:50 – 2:00 Amanda Gevens (K19 Southeast side/by weather station) – 'Disease management'

2:05 – 2:15 Felix Navarro– (Field K22 South side) 'Wisconsin Variety Trial update'

2:20 – 2:35 Shelley Jansky & Paul Bethke (Field K23 South Side) – 'Germplasm development & phenotyping'

2:45 - 3:00 Amy Charkowski & Phil Townsend (Field S29 Southeast Side) - 'PVY expression in US potato varieties'

3:05 - 3:15 Matt Ruark (Field S30 North side) – 'Nitrogen management'

3:25 – 3:35 Ann MacGuidwin (Field C21 North side) – 'Feasibility of Site Specific Fumigation for PED'

3:40 - 3:50 Jeff Endelman (Field C22 or C23 North side) - 'Potato breeding progress'

Field Day Wrap-up and Announcements (HARS Grounds) - 4:15 – 5:00 pm

4:15 - 4:30 Justin Isherwood- 'UW-Madison and Hancock ARS: 'A Century of Collaboration on Ag. Research'

4:30 – 4:45 WPVGA Exec. Director Tamas Houlihan: 'Wisconsin Potato and Vegetable Growers Association Update'

4:45 – 5:00 Dean Kate VandenBosch: 'UW-Madison College of Agricultural and Life Sciences Update'

Dinner will begin at 5:00 PM

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