



# Vegetable Crop Update

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

No. 23– July 18, 2015

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Disease forecasting values for early blight and late blight  
Late blight updates –  
Cucurbit downy mildew updates

## Calendar of Events

**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

**Amanda J. Gevens, Associate Professor & Extension Vegetable Plant Pathologist, UW-Madison, Dept. of Plant Pathology, 608-890-3072 (office), Email: [gevens@wisc.edu](mailto:gevens@wisc.edu). 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  $\geq 300$  indicates the threshold for early blight risk and triggers preventative fungicide application. A DSV of  $\geq 18$  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](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 7/14 |
|--------------------|---------------|---------------|------------------|------------------------|------------------------|---------------------------|
| <i>Antigo</i>      | Early 4/25    | 5/25          | <b>341</b>       | <b>62</b>              | 7/17                   | 4                         |
|                    | Mid 5/5       | 6/1           | <b>341</b>       | <b>62</b>              | 7/17                   | 4                         |
|                    | Late 5/15     | 6/15          | <b>243</b>       | <b>36</b>              | 7/17                   | 4                         |
| <i>Grand Marsh</i> | Early 4/5     | 5/10          | <b>487</b>       | <b>84</b>              | 7/17                   | 6                         |
|                    | Mid 4/15      | 5/15          | <b>477</b>       | <b>83</b>              | 7/17                   | 6                         |
|                    | Late 5/1      | 5/21          | <b>443</b>       | <b>81</b>              | 7/17                   | 6                         |
| <i>Hancock</i>     | Early 4/10    | 5/15          | <b>480</b>       | <b>71</b>              | 7/17                   | 5                         |
|                    | Mid 4/20      | 5/18          | <b>455</b>       | <b>68</b>              | 7/17                   | 5                         |
|                    | Late 5/5      | 5/25          | <b>422</b>       | <b>63</b>              | 7/17                   | 5                         |
| <i>Plover</i>      | Early 4/15    | 5/20          | <b>481</b>       | <b>83</b>              | 7/17                   | 4                         |
|                    | Mid 4/25      | 5/22          | <b>442</b>       | <b>80</b>              | 7/17                   | 4                         |
|                    | Late 5/10     | 5/30          | <b>380</b>       | <b>64</b>              | 7/17                   | 4                         |

**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 8<sup>th</sup>, 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 4 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:*** Five counties in Wisconsin have submitted potato samples confirmed for late blight. In all cases, the *Phytophthora infestans* is of the US-23 genotype. Previous reports are listed below. Additional field samples have come in from Adams and Waushara Counties – all of the US-23 genotype which is sensitive to phenylamide fungicides such as mefenoxam and metalaxyl.

1<sup>st</sup> was northern Adams on 23 June  
2<sup>nd</sup> was western Waushara on 8 July  
3<sup>rd</sup> was southern Wood on 8 July  
4<sup>th</sup> was central Marquette on 14 July  
5<sup>th</sup> was Portage on 15 July

***Across the nation:*** There were new detections of late blight in NC (tomato) and PA (potato) this past week [www.usablight.org](http://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](http://www.usablight.org)/strain not yet identified), WA, MD, NJ, NY (US-23), ON Canada, 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:

<http://www.plantpath.wisc.edu/wivegdis/pdf/2015/Potato%20Late%20Blight%20Fungicides%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.**

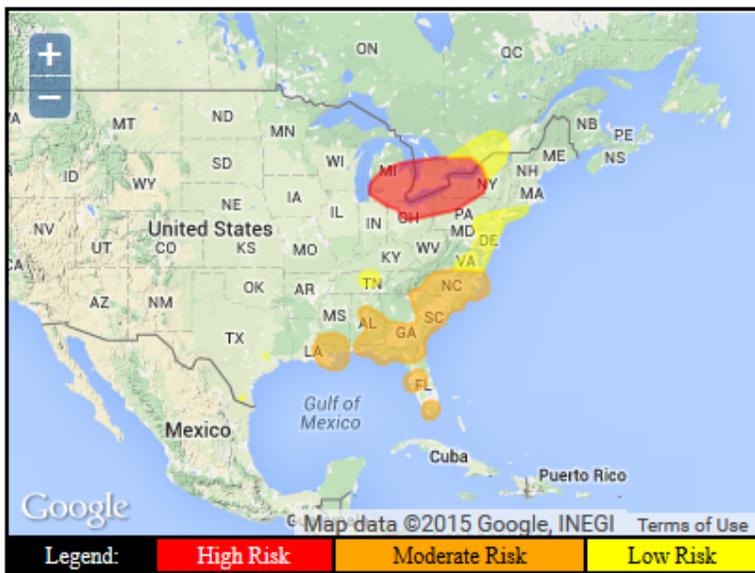
Further details on registered fungicides for WI vegetables can be found in the Univ. of WI Commercial Vegetable Production in WI Guide A3422, <http://learningstore.uwex.edu/assets/pdfs/A3422.PDF>.

**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 DE, MI, NC, NY, OH, PA, SC, TN, and TX. Prior reports of the disease have been confirmed in AL, FL, GA, LA, MD, MI, NC, NY, OH, ON Canada, PA, 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 3:11PM on July 18, 2015. No forecasted movement of the pathogen to WI at this time. However, for July 19 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 3: Sunday, July 19**



**HIGH Risk for central and southern lower MI, northern OH, southern ON, northwest PA, and western and central NY. Moderate Risk to cucurbits in southeast LA, southern MS, central and southern AL, southern GA, the FL panhandle and most of the peninsula, SC, and central and eastern NC. Low Risk for central TN, southeast VA, eastern MD, DE, southeast PA, NJ, Long Island, northern NY and southern Quebec. Minimal Risk to cucurbits otherwise.**



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

**Cucurbit downy mildew updates:** Cucurbit downy mildew was confirmed on cantaloupe and cucumber in Dane County today July 20, 2015. Disease was in very low level (10% or less severity) and was identified on crops treated with preventive fungicides for the past 2 weeks.

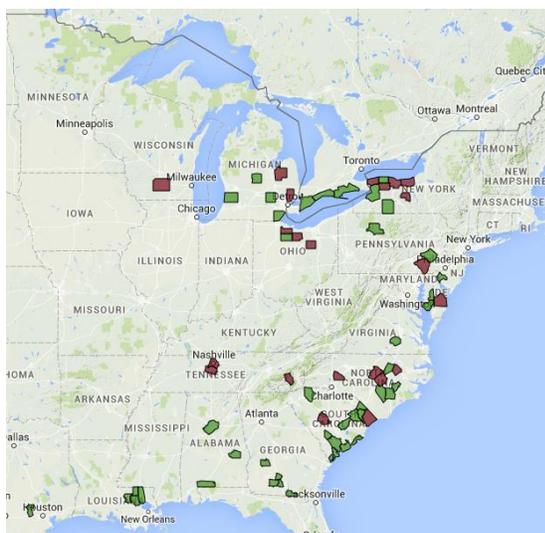
Preventive management of downy mildew on susceptible crops is recommended for central and southern WI at this time. Please see link below for management recommendation as offered on June 23, 2015.

<http://www.plantpath.wisc.edu/wivegdis/pdf/2015/June%2023,%202015.pdf>

The map below shows current reports of cucurbit downy mildew (red counties show reports from this week; red counties show older reports).

To date, downy mildew has been confirmed in DE, MI, NC, NY, OH, PA, SC, TN, and TX. Prior reports of the disease have been confirmed in AL, FL, GA, LA, MD, MI, NC, NY, OH, ON Canada, PA, SC, TX, and VA. For more information, visit:

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