

In This Issue

Updates

Disease forecasting and risk assessment tools for potato and vegetable crops

Calendar of Events

July 16, 2020 – UW Hancock Ag Research Station Field Day CANCELLED
December 1-3, 2020 – Midwest Food Producers Association Annual Convention/Processing Crops Conference, Kalahari, Wisconsin Dells, WI
February 2-4, 2021 – UW-Madison Div. of Extension & WPVGA Grower Education Conference, Holiday Inn, Stevens Point, WI

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I have a few updates to report this week. 1) The UW Hancock Agricultural Research Station previously scheduled for July 16, 2020 has been cancelled as an in-person event to continue to limit risk of COVID-19 transmission in our community. Station personnel and researchers are considering an alternative virtual/remote educational event. We cannot replace the networking and fellowship of our community with this approach, but we can provide research updates and personalized interaction, and address any questions/concerns/suggestions from our stakeholders. More to come. 2) Dr. Yi Wang was awarded a “40 under 40” award from the Great American Media Services group. This annual award honors 40 outstanding individuals who show leadership, innovative thinking, and commitment to the future of the specialty crops industry. Honorees represent every sector from growers and farm marketers to researchers and suppliers. Awardees are celebrated annually during the Great Lakes Fruit, Vegetable, and Farm Market Expo in Grand Rapids, MI. Congratulations Yi!

Disease forecasting and risk assessment tools for potato and vegetable crops: Each year we host four weather stations in potato fields of Wisconsin to provide disease risk information to potato and vegetable growers for proactive management of late blight (of tomato and potato) and early blight of potato. A summary table of these outcomes will be posted in this newsletter on a weekly basis, as in past years, but the information is also available with daily updates at the Vegetable Pathology website (<https://vegpath.plantpath.wisc.edu/dsv/>). Additionally, we have an online tool which draws from a larger public weather data set to offer statewide access to late blight risk information (as well as insect risk information for vegetable crops); <https://agweather.cals.wisc.edu/vdifn/maps>. Information, below, provides guidance on how to use the tools, and where to source information.

Locations of in-field weather stations/disease forecasts include: Antigo, Plover, Hancock, and Grand Marsh. Thank you to Okray Family Farms and Bula Gieringer Farms for hosting two of our weather stations this season. The Hancock station is located at the UW Hancock ARS. We will place the Antigo station at the Langlade County airport research area later this month. Many thanks to Ben Bradford (Groves Lab) for support in establishing our new website and tools for disease forecasting, as well as Steve Jordan for setting up the stations this past week.

Disease Forecasting: What are potato Blitecast DSVs and P-days?

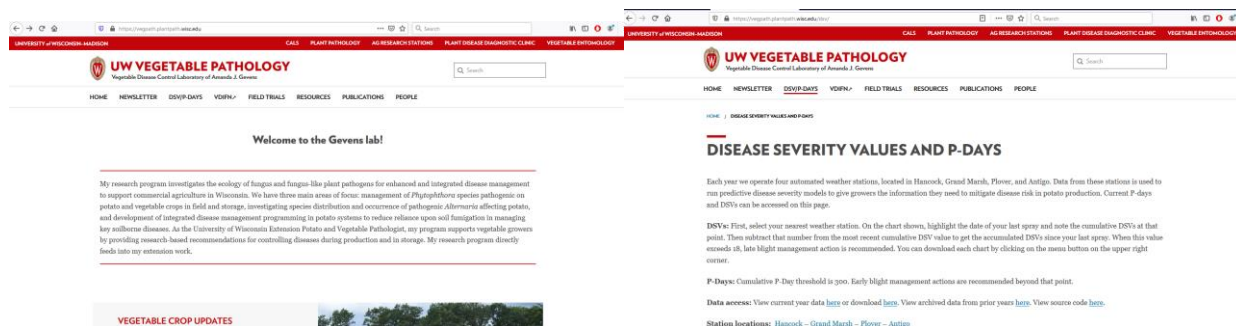
Blitecast (late blight forecasting): Computation of 18 disease severity values (DSVs) relies on maximum and minimum temperatures each day, the duration of relative humidity periods above 90% and the maximum/minimum temperatures during the relative humidity periods above 90%. For a given day, up

to 4 DSVs can accumulate. We start the severity value calculations at approximately 50% crop emergence. The 50% crop emergence date can be selected by the user at the website by simply starting the calculations on a particular date. When we reach a total of 18 severity values, we issue a warning which indicates that environmental conditions have been met which favor late blight. At 18 DSVs, the recommendation for preventive applications of effective late blight fungicides is made. Beyond initial 50% emergence, the accumulation of DSVs resets after each application of fungicide (directions also included online). An additional alert is issued when the first symptoms of late blight appear anywhere in the state. The determination of late blight management recommendations is made by taking into consideration DSVs, projected weather forecast, and presence/risk of inoculum. This information is published in our newsletter and will be disseminated in various other outlets as the season progresses.

The Potato P-Day accumulator (early blight prediction tool) is based on potato physiological development and accumulated weather conditions to generate early blight recommendations. Once we reach 300 P-Days, calculated from 50% crop emergence onward, our spray recommendations take both the P-Day and severity value totals into account to generate 5 day, 7 day or 10 day spray interval recommendations. The interval is variable depending upon prevailing weather conditions and the presence of disease in the area. Typically, P-Day 300 is reached in early July and when potato rows are just beginning to touch (row closure).

As in past years, we will continue to provide Blitecast information via this newsletter and through the vegetable pathology website: <https://vegpath.plantpath.wisc.edu/> We will have in-potato-field weather stations in Grand Marsh, Hancock, Plover, and Antigo as in past years, with access to the station data (with DSV and PDay values at: New <https://vegpath.plantpath.wisc.edu/dsv/> in recent years, is the Vegetable Disease and Insect Forecasting Network (VDIFNet) site which provides information on DSVs from NOAA weather data across the state of WI, as well as insect phenological data (Dr. Russell Groves, UW-Madison Entomology). The link to the VDIFNet site is: <https://agweather.cals.wisc.edu/vdifn/maps>

Below, screenshots from the relatively new UW Vegetable Pathology website and DSV/PDay reporting page. The changes make access to useful tools much easier to navigate and utilize in near real time.



2020 University of Wisconsin Madison Extension Commercial Vegetable Crop Production Management Guide: Our production guide is updated every October with release of a new guide in January. The book can be downloaded for free as a pdf at the link below, or can be purchased online for \$12.50. <https://learningstore.extension.wisc.edu/products/commercial-vegetable-production-in-wisconsin>