Vegetable Crop Update

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

Division of Extension
University of Wisconsin-Madison

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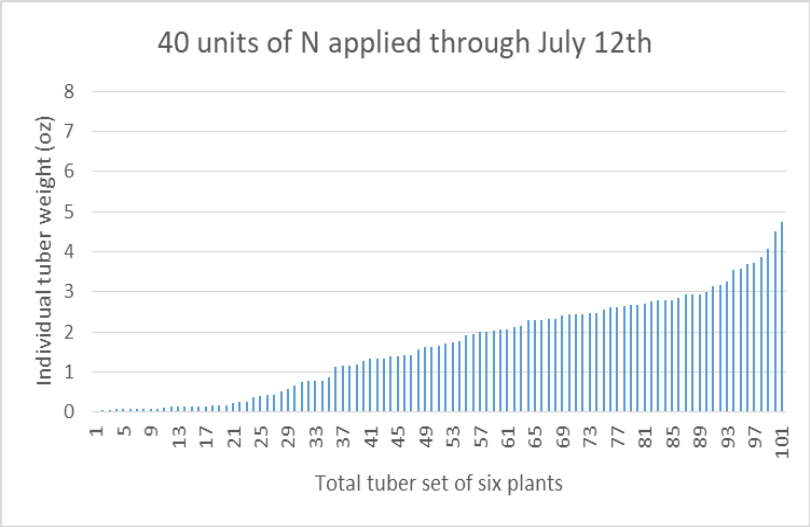
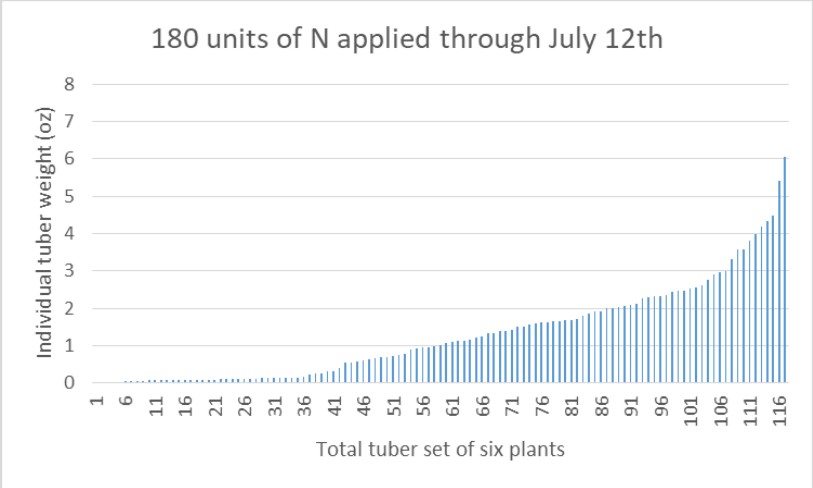
Calendar of Events

July 23, 2020 – UW Extension Langlade Co. Virtual Field Day
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

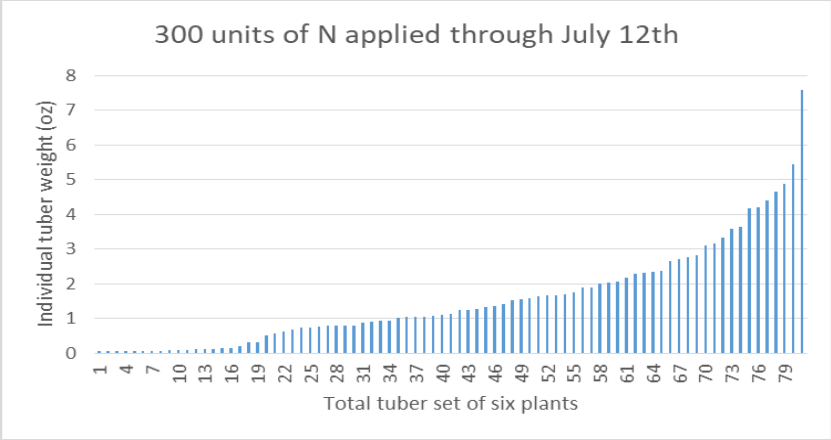
Yi Wang, Assistant Professor & Extension Potato and Vegetable Production Specialist, UW-Madison, Dept. of Horticulture, 608-265-4781, Email: wang52@wisc.edu.





This week's digging data from six Plover Russet plants of each N rate showed that higher N rate resulted in more tubers that were larger than 4 oz. Digging date (July 12th) was 52 days after plant emergence (May 21st). For example, under 40 lb N/acre, 3% were larger than 4 oz, under 180 lb N/acre, the number was 4%, but under 300 lb N/acre, 10% were larger than 4oz.

Like what we found last week, the highest N rate resulted in less tuber set and more tubers that bulked up into the marketable size. There is another 60 units of N scheduled to be applied next week. We are expecting more marketable tubers to be developed.



Also this week we got our groundwater test results back. The water was collected on July 5th from a well that irrigated our research plots at the Hancock Ag Research Station.

Time from start of irrigation system (hr)	NITRATE-N (ppm)
0	24.5
0.5	23.5
1.0	25.6
2.0	22.6

Those numbers were consistent with what we saw three weeks ago, which was around 24 ppm, and no difference of nitrate-N level was noticed within the irrigation event. We have several rainfall events that were larger than 1 inch over the past three weeks, suggesting higher nitrate leaching potential from our N treated plots, however, there has not been noted any increase of groundwater nitrate level in the well that was only 20 feet from the soil surface. I will keep updating on our test results for the rest of the growing season.

Amanda Gevens, Dept. Chair, Professor & Extension Specialist, UW-Madison Plant Pathology, gevens@wisc.edu, Cell: 608-575-3029. https://vegpath.plantpath.wisc.edu/

Current P-Day (Early Blight) and Disease Severity Value (Late Blight) Accumulations (Many thanks to Ben Bradford, UW-Madison Entomology; Stephen Jordan, 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. TBD indicates that data is To Be Determined as time progresses. Weather data used in these calculations comes from weather stations that are placed in potato fields in each of the four locations. Data are available in graphical and raw data formats for each weather station at: https://vegpath.plantpath.wisc.edu/dsv/

Location	*Planting Date*		50% Emergence Date	Disease Severity Values 7/18/20	Potato Physiological Days 7/18/20
Grand Marsh	Early	Apr 17	May 18	76	462
	Mid	Apr 25	May 26	73	407
	Late	May 6	June 1	70	366
Hancock	Early	Apr 8	May 18	43	471
	Mid	Apr 20	May 25	41	420
	Late	May 4	May 30	38	382
Plover	Early	Apr 10	May 23	56	414
	Mid	Apr 20	May 30	50	360
	Late	May 5	June 1	50	347
Antigo	Early	May 14	June 5	35	338
	Mid	May 24	June 10	35	301
	Late	Jun 1	June 17	34	253

Late Blight Management: Our DSVs are reported here from emergence to July 18. Over the past week, we saw greatest accumulations in the most southern locations (on average 2 DSVs per day, whereas further north about 1 DSV per day). **All plantings of potatoes in the Grand Marsh, Hancock, Plover, and Antigo areas have exceeded threshold and should receive routine (~weekly) preventative fungicide application for late blight management.**
Early Blight Management: PDays are exceeding the threhold of 300 for early planted potatoes in Grand Marsh, Hancock, Plover, and Antigo areas. Totals are rapidly accumulating with higher temperatures. For more information about fungicide selections, please see the Potato section of the A3422 Commercial Vegetable Production Guide for Wisconsin, 2020.
https://cdn.shopify.com/s/files/1/0145/8808/4272/files/A3422-2020.pdf

National late blight update: Tomato late blight was reported in North Carolina 2 days ago. No new reports of late blight on potato in this past week, as per https://usablight.org/map/ . Previous reports documented the disease in FL and AL.

National cucurbit downy mildew update: No downy mildew reported from WI at this time. Over the past week, no additional county reports in Michigan. Reports to date, have come from: AL, DE, GA, MD, MI, NC, OH, Ontario Canada, NY, NJ, VA, MD, SC. No forecasted movement of the pathogen in our direction, with prevailing air moving eastward.

Langlade County Virtual Field Day – July 23, 2020 1-3PM

The 2020 Field Day will be moving to a virtual platform based on social distancing guidelines. The flyer is attached with a list of presenters and researchers who will be contributing to the event. Join us Thursday July 23rd at 1:00 PM for a Virtual Field Day, zoom link or call in information is listed below.

Join Zoom Meeting
https://uwextension.zoom.us/j/96045954238?pwd=TktVOWdYWktWK3Z3TzNyQ3haaEhIZz09

Meeting ID: 960 4595 4238
Password: Potato

One tap mobile (might need to add this text: "For use with cell phones")
+16465588656,,96045954238#

Dial by your location (might need to add this text: "Local distance charges may apply")
+1 312 626 6799
Meeting ID: 960 4595 4238

Join Us by using Zoom, logon to the link below:
https://uwextension.zoom.us/j/96045954238?pwd=TktVOWdYWktWK3Z3TzNyQ3haaEhIZz09
Meeting ID: 960 4595 4238
Password: Potato
Mobile Phone: +16465588656,,96045954238# Meeting ID: 960 4595 4238
Dial by Location (long distance charges may apply) +1 312 626 6799 Meeting ID: 960 4595 4238

Welcome Cole Lubinski, Research Station Manager

PRESENTERS

Potato Disease Updates and Summary of 2020 Research
- Amanda Gevens, UW Plant Pathology

Predicting Risk for PYV Transmission
- Russ Groves, UW Entomology

Alternative Crops and Potential New Potato Herbicides for Langlade County
- Jed Colquhoun, UW IPM Program

Research Updates on Potato Production Program
- Yi Wang, UW Potato & Vegetable Sustainable Production

Research and Development Update
- Mike Copas, RPE

Evaluation of Oat, Peral Millet and Sorghum-Sudangrass Cover Crops on Parasitic Nematode Populations and Soil Health in Northern Wisconsin
- Jamie Patton, UW Nutrient and Pest Management

Lime Trial
- Kevin Gallenberg, Agsource VAS

State Farm Update
- Alex Crockford, UW Seed Certification Program

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Thank you to our local Businesses and Industries for your continued donations and support:

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WPVGA Associate Division

Wisconsin Seed Potato Improvement Association

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