

# 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 – July 25, 2020**

Division of Extension  
University of Wisconsin-Madison

**In This Issue**

Updates on N – potato trials  
Disease forecasting and updates for early and late blight in potato, cucurbit downy mildew updates

**Calendar of Events**

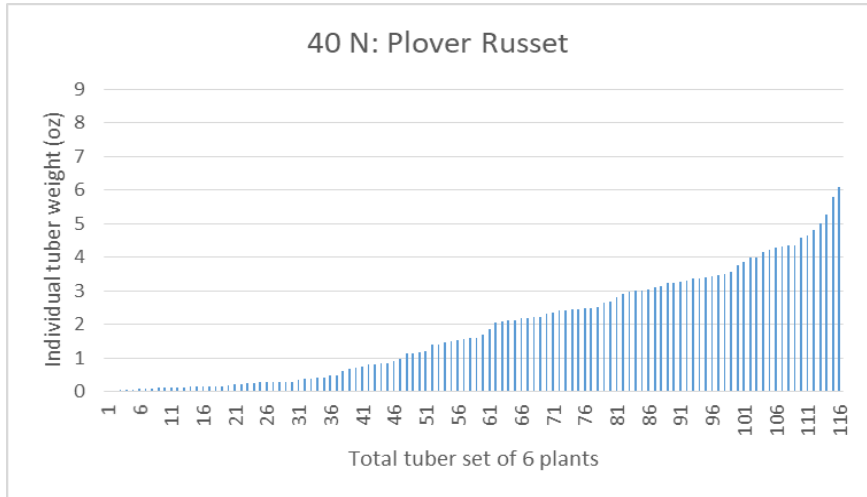
**December 1-3, 2020** – Midwest Food Producers Association Annual Convention/Processing Crops Conference, Kalahari, Wisconsin Dells, WI  
**February 2-4, 2021** – UW-Madison Div. of Extension & WPVGA Grower Education Conference, Holiday Inn, Stevens Point, WI

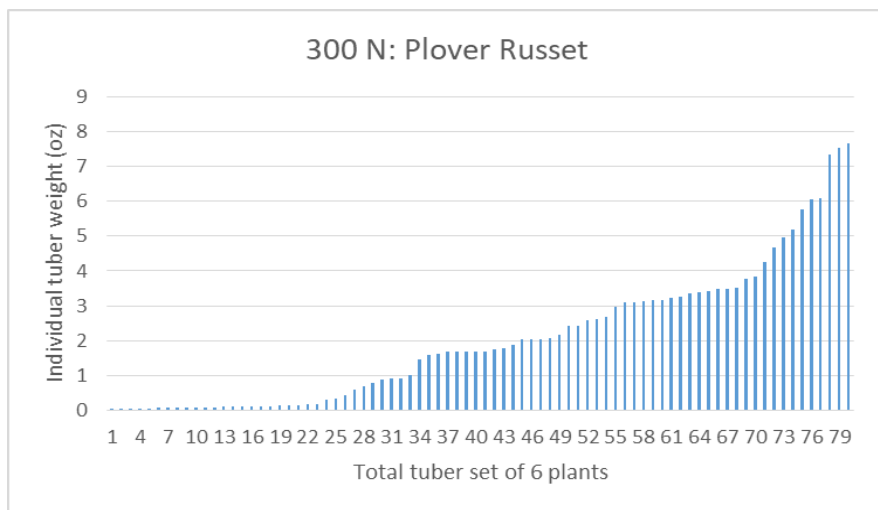
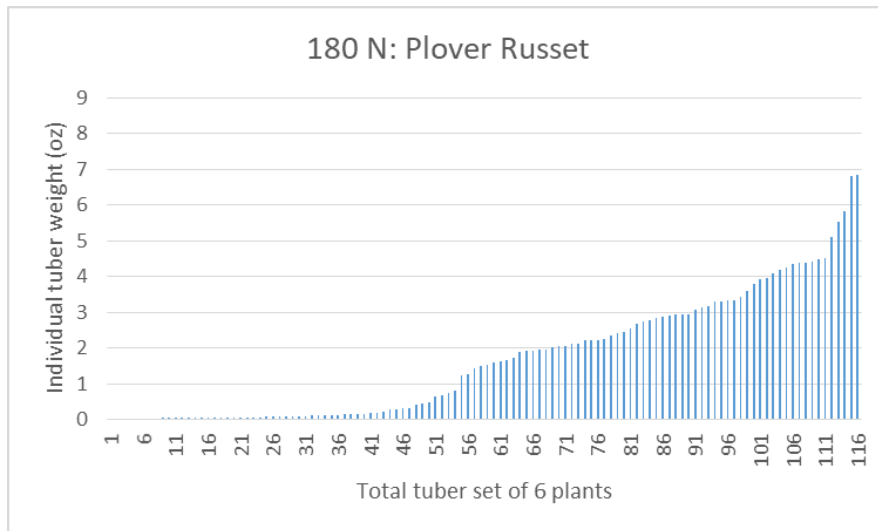
**Yi Wang, Assistant Professor & Extension Potato and Vegetable Production Specialist, UW-Madison, Dept. of Horticulture, 608-265-4781, Email: wang52@wisc.edu.**

Results from the nitrate-N testing of groundwater at our Hancock Ag Research Station are shown below:

DATE	Time from Start of irrigation (hr)	Nitrate-N (ppm)
7/9/20	0	24.7
7/9/20	0.5	24.7
7/9/20	1	25.3
7/9/20	2	24.9
7/17/20	0	25.7
7/17/20	0.5	27.0
7/17/20	1	26.8
7/17/20	2	26.7

Again, no difference of nitrate-N level in the groundwater within each irrigation event. On July 20, we dug another 6 plants from the Plover Russet plots under different N rates.

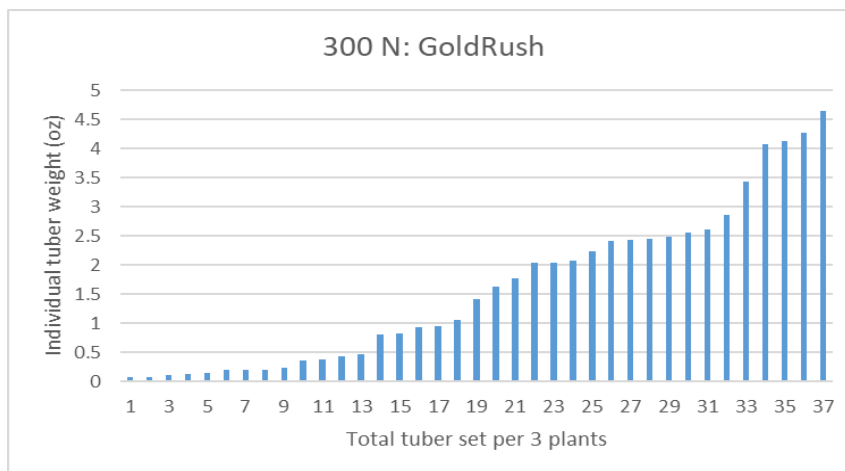
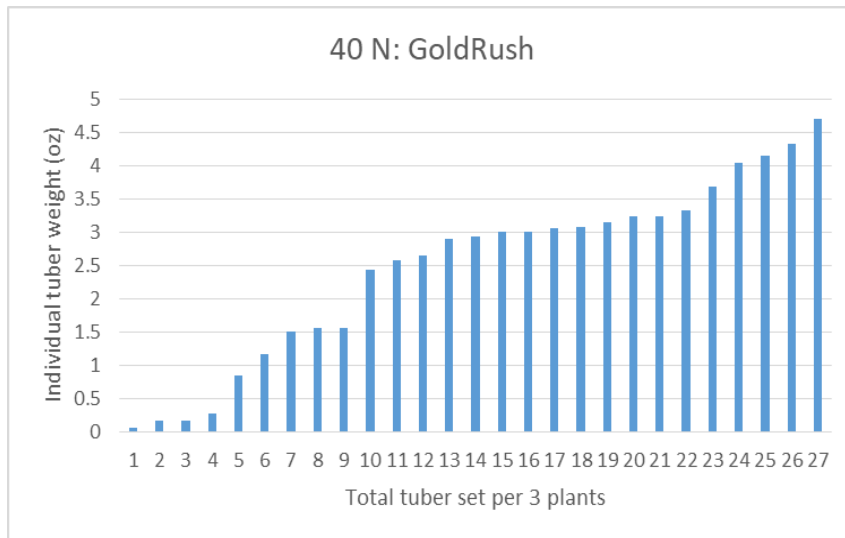




Obvious higher N rates resulted in a greater number of larger tubers and less tuber set per plant for Plover Russet. We also dug some GoldRush under lower and higher N rates. Although our GoldRush had poor emergence issues, the plants we dug were from the normally emerged plots.

Interesting to note that GoldRush is about 3oz less than Plover Russet with regard to the largest tuber produced so far, no matter what N rate it is under. This observation is consistent with grower's observation, which indicates that Plover Russet is ~10 days ahead of GoldRush.

Unlike Plover Russet, higher N rate for GoldRush is producing more tubers per plant. It is a little strange to note that lower N rate yielded a greater number of larger tubers. We will keep updating on this in the next two weeks.



**Amanda Gevens, Dept. Chair, Professor & Extension Specialist, UW-Madison Plant Pathology, [gevens@wisc.edu](mailto: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  $\geq 300$  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 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/>

<i>Location</i>	<i>Planting Date</i>	<i>50% Emergence Date</i>	<i>Disease Severity Values 7/24/20</i>	<i>Potato Physiological Days 7/24/20</i>
<b>Grand Marsh</b>	Early Apr 17	May 18	89	511
	Mid Apr 25	May 26	86	456
	Late May 6	June 1	83	415
<b>Hancock</b>	Early Apr 8	May 18	47	520
	Mid Apr 20	May 25	45	469
	Late May 4	May 30	42	431
<b>Plover</b>	Early Apr 10	May 23	67	460
	Mid Apr 20	May 30	61	406
	Late May 5	June 1	61	394
<b>Antigo</b>	Early May 14	June 5	41	388
	Mid May 24	June 10	41	350
	Late Jun 1	June 17	40	303

**Late Blight Management:** Our DSVs are reported here from emergence to July 24. 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 threshold 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 8 days ago. The pathogen was determined to be US-23 *P. infestans*. 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. Reports to date, have come from: AL, DE, GA, MD, MI, NC, NJ, NY, OH, Ontario Canada, PA, SC, and VA. No forecasted movement of the pathogen in our direction, with prevailing air moving eastward.

