

SPUDSCOOP

22 August 2020

Welcome to Spud Scoop for the week ending on August 22, 2020. No late blight has been found in ND, MN or MB. Late blight spores were found in Cavalier, ND and in Little Falls and Rice, MN. Stay diligent with fungicide protection and scouting fields.

We had another big week for aphid vector numbers, with very similar numbers to last week. A total of 287 vectors were recovered from 15 sites reporting. In fact, with this week's catch, we've caught up with 2019 and are pretty much at the same levels, but with different levels at different sites.

The crop continues to progress well with more fields being desiccated. Verticillium wilt is becoming more noticeable, as infected plants have upright stems, “lone soldiers”, with chlorosis and necrosis of the leaves are showing up.



Figure 1. Verticillium wilt in Russet Burbank.

Blightline

by Gary Secor

Welcome to the NDSU Potato Blightline for August 21, 2020. Late blight has not been reported in ND, MN or MB. Late blight has been reported in WA, BC and WI. The rain and cooler temperatures are favorable for late blight infection and spread. Even though we are nearing harvest, continue to scout fields, especially in areas that remain wet for longer periods, such as along shelterbelts and in low areas. If late blight is found, an aggressive fungicide program will be necessary to manage the disease, especially for tuber infection that can cause soft rot problems in storage if present. Remember that late blight is a community disease and if late blight is present, inform your neighbors so you can manage late blight together. Send suspect late blight samples or photos to us for positive identification.

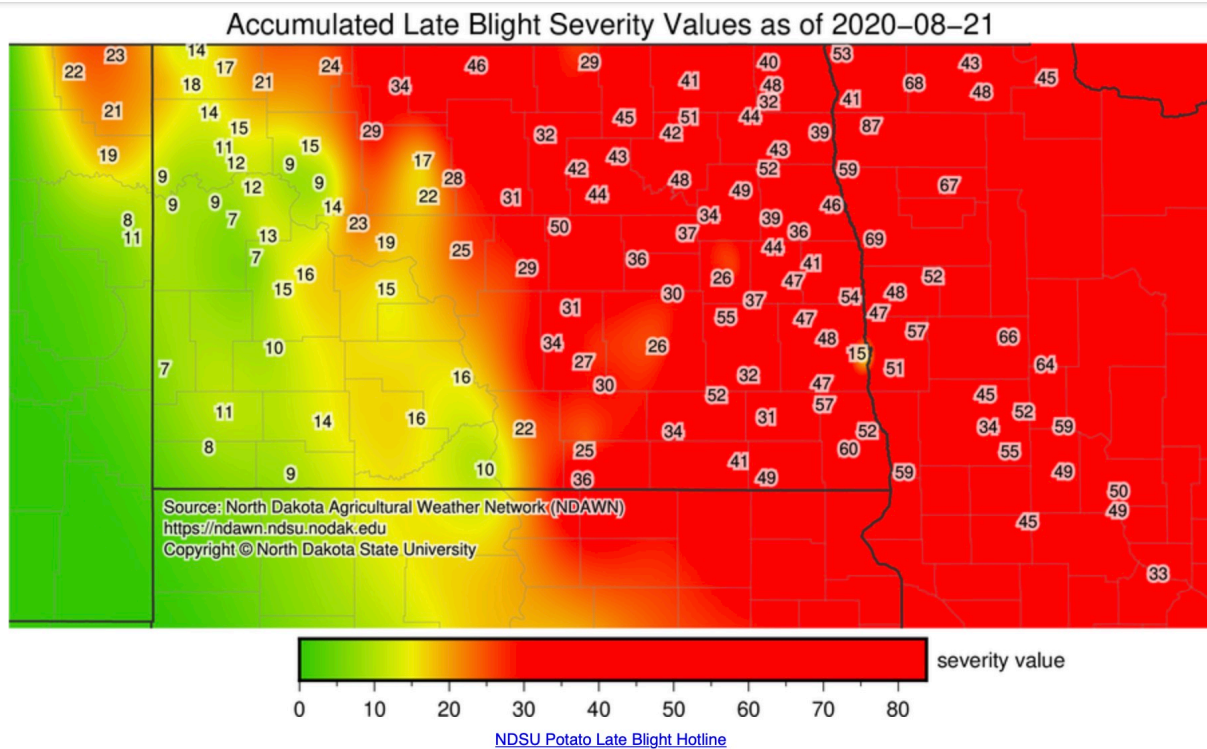
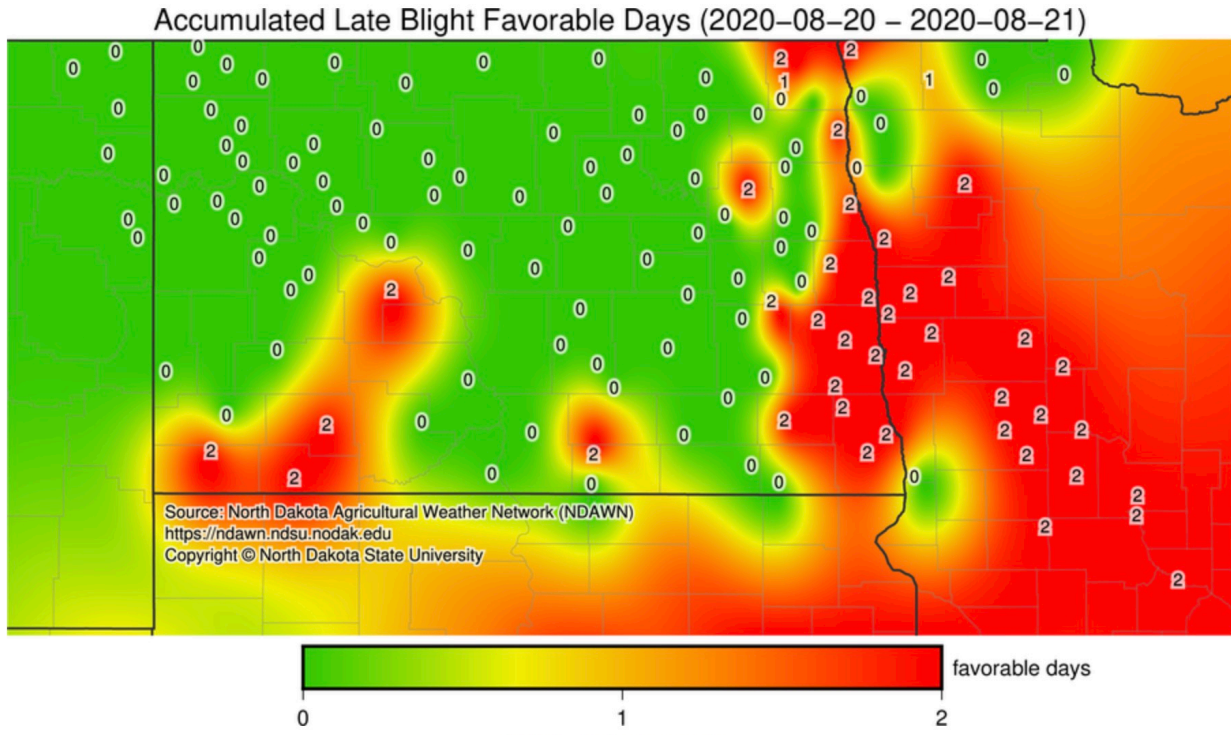


Figure 1. Late blight severity values as of August 21, 2020.



[NDSU Potato Late Blight Hotline](#)

Figure 2. Accumulated late blight severity values in the past two days, August 20-21.

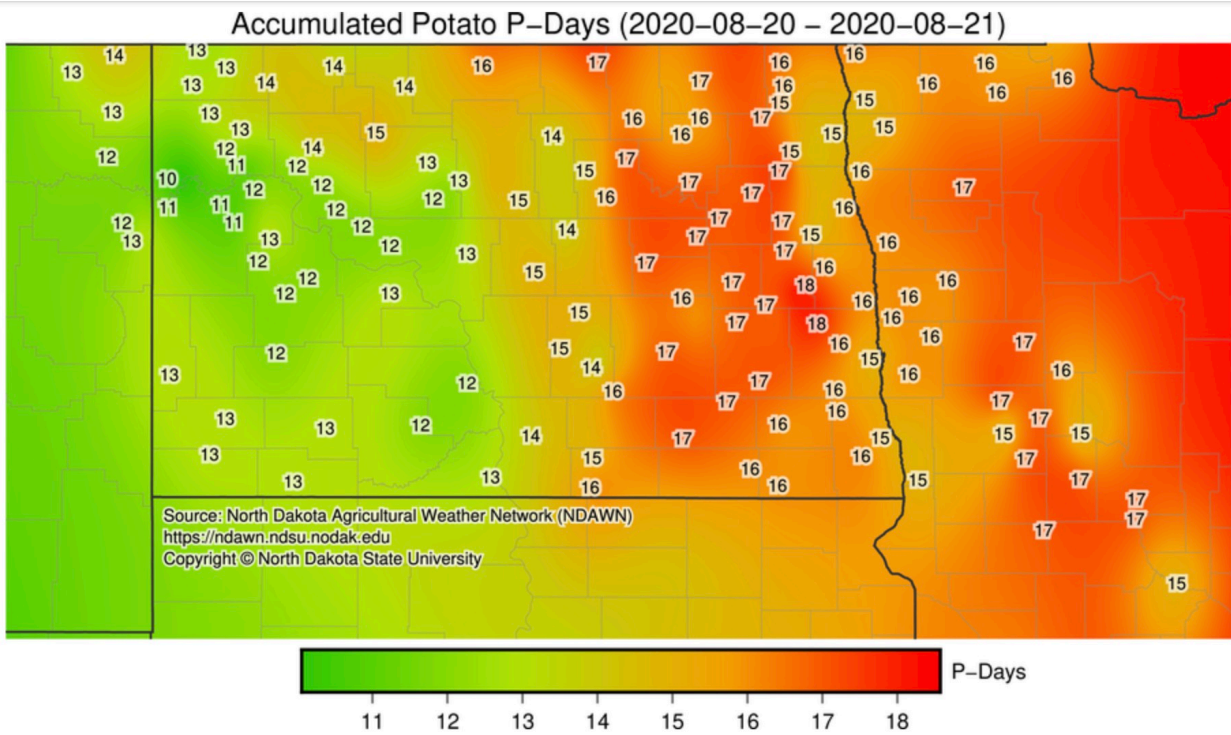


Figure 3. Early blight P-day values accumulated in the past two days, August 20-21.

Potato Late Blight Spore Trapping Network

Trap catches from August 10-16, 2020

By Andy Robinson and Julie Pasche

This is the seventh reporting period for 2020. This report contains 28 sites reporting for the week of August 10-16. The PCR assays to detect late blight spores were conducted in the lab of Dr. Julie Pasche at the NDSU Plant Pathology department. Late blight spore DNA was found at three sites this week, Cavalier, Little Falls and Rice. As the legend in the map indicates, green dots indicate no late blight spores recovered, pink dots indicate late blight spores were found and the gray dots indicate sites not reporting.

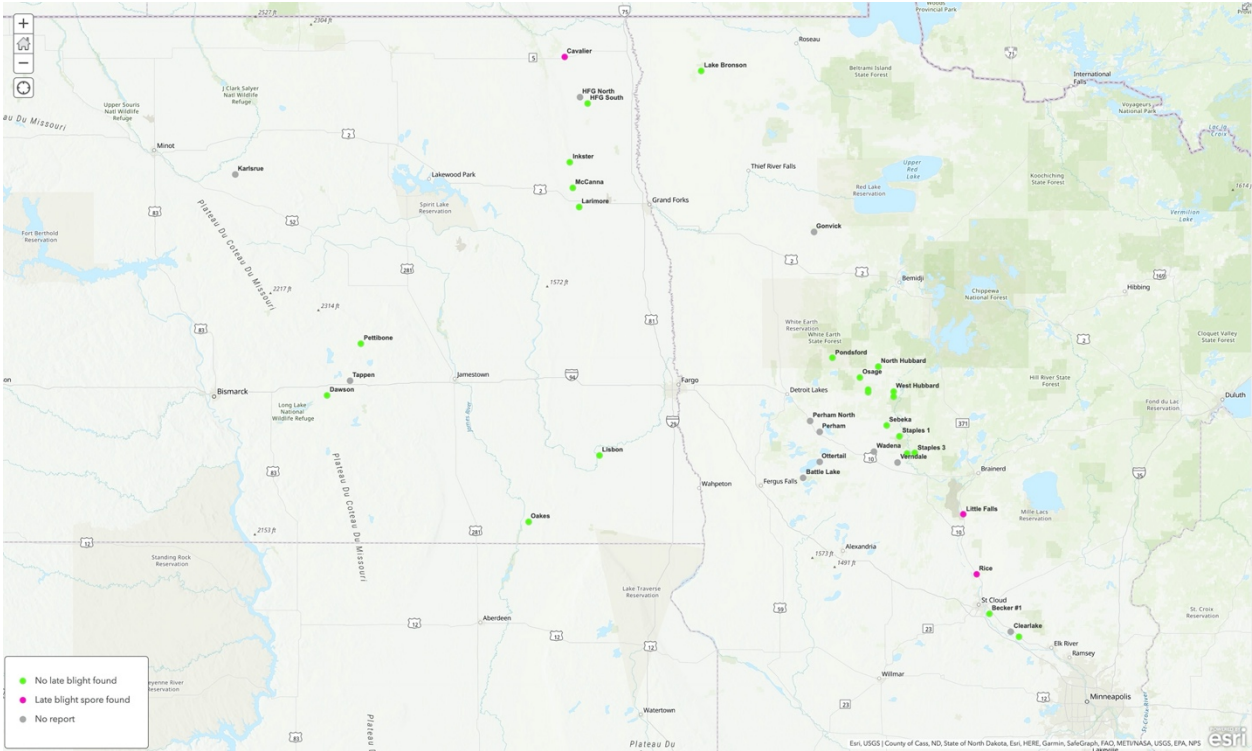


Figure 4. Results of late blight spore traps during the week of August 10-17, 2020.

Thank you to the Northern Plains Potato Growers Association, Minnesota Area II Potato Council, J.R. Simplot Company, Cavendish, R.D. Offutt Farms, Syngenta, Sipcarn, Bayer Crop Science, BASF, UPL USA, Corteva, and Nufarm for supporting this effort.

Aphid Alert

by Ian MacRae

Trap Catches Identified to August 21, 2020.

We had another big week for aphid vector numbers, with very similar numbers to last week. A total of 287 vectors were recovered from 15 sites reporting. In fact, with this week's catch, we've caught up with 2019 and are pretty much at the same levels, but with different levels at different sites....

A number of efficient vector species were recovered from most locations. Green peach aphids were found in Sabin, soybean aphids had a large flight with large captures at several locations. There seems to be high numbers of thistle aphids this year and populations of damson-hop aphids have developed this as well this year. Populations of potato aphids persist and the small grain aphids (bird-cherry oat, corn leaf and English grain aphids) continue to be well-represented in trap catches. Because many of these are efficient vectors, the PVY Vector Risk Index has risen this week to also be pretty much the same as this time last year.

Many seed fields are being vine killed and harvested. But remember, aphids will continue to probe any green plant material in the field, so inoculum can be moved until plants are killed.

Hope harvest goes well, keep an eye on the fields...

If you have a field where Colorado Potato Beetle aren't being controlled by insecticides, please let us know. We'd like to get samples of that population to test for insecticide resistance. Contact Ian MacRae at 218-280-9887.

As always, keep on scouting!

Scouting for aphids in potatoes:

- Select leaves from the lower to mid canopy. Start at the edge of the field.
- Lower, older leaves will have more established colonies and aphids prefer the balance of nutrients found here; aphids are rarely found on leaves in the upper canopy.
- Avoid leaves on the ground or in contact with the soil.
- In seed potatoes there is only a threshold for PLRV (10 aphids/100 leaves), reactive application of insecticides an effective control for PVY.
- The use of feeding suppressing insecticides, such as pymetrozine (Fulfill®) or flonicamid (Beleaf®) and refined crop oils, such as Aphoil and JMS Stylet Oil, at or prior to field colonization by aphids may reduce the transmission of PVY within fields. Some other insecticides, such as clothianidin (Belay®), imidacloprid (Admire Pro® or Provado®), and spirotetramat (Movento®), have also been demonstrated to reduce the transmission of PVY.
- In table stock potatoes, a treatment threshold of 30 aphids /100 leaves should deter yield loss due to aphid feeding.

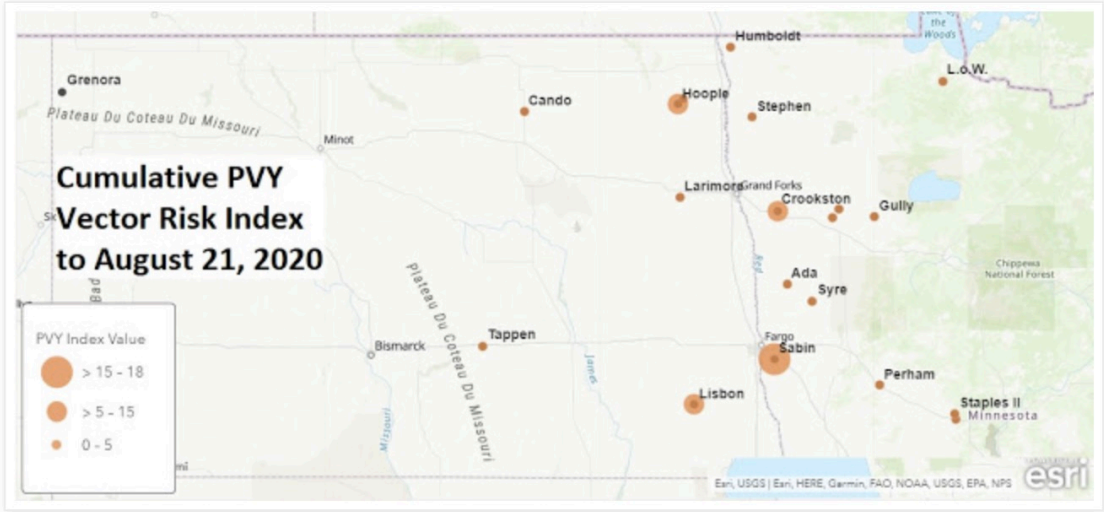
The PVY Risk Index Index

Not all species of aphid are equally efficient at transmitting PVY, some are better than others (green peach being the most efficient vector of PVY). So, the total number of aphids in a trap

don't necessarily reflect just how much vector pressure there is at that location. The PVY Vector Risk Index compares aphid numbers, incorporating their relative vector efficiency compared to the Queen of PVY vectors (green peach aphid!). Using averaged reference comparisons from the literature, we multiply the number of each aphid species captured by its efficiency compared to Green Peach Aphid to more accurately depict risk posed by the species being trapped. We then sum the totals. The PVY-VRI values are presented on the tables below but also on maps comparing current cumulative risk to the total risk from the sample sites of last year (to compare with your local winter grow out results).

Check out all the trap data at: aphidalert.blogspot.com

Cumulative PVY Vector Risk Index to August 21, 2020.



Cumulative PVY Vector Risk Index to August 23, 2019 season (for comparison)

