



PCAN Newsletter Winter 2020

Welcome to the winter PCAN newsletter.

In this newsletter we will discuss the post-harvest tests, and upcoming events within the Nebraska Seed Potato Industry. It is our hope that this newsletter becomes a resource for anyone wanting to better understand the Nebraska Seed Potato Industry, and our goals as an agency. We are grateful for our employees, and their hard work and dedication.

2019 Post-Harvest Tests

The annual post-harvest tests (PHT) were conducted in Waialua, Hawaii this year.



The plots were planted from November 6 – November 8. We returned for visual readings and virus-testing in mid-December, then again from January 6 – January 9. Virus-testing was conducted by individuals from the University of Hawaii. Growth was slow this year, about three weeks behind schedule. Only 29% of lots were picked for virus-testing before Christmas.

There was little virus in the PHT plots. Of the 302 lots tested so far, only four tested positive for PVY, with one of those lots being rejected. These four lots represent 122.6 acres, which can be seen in Figure 1.

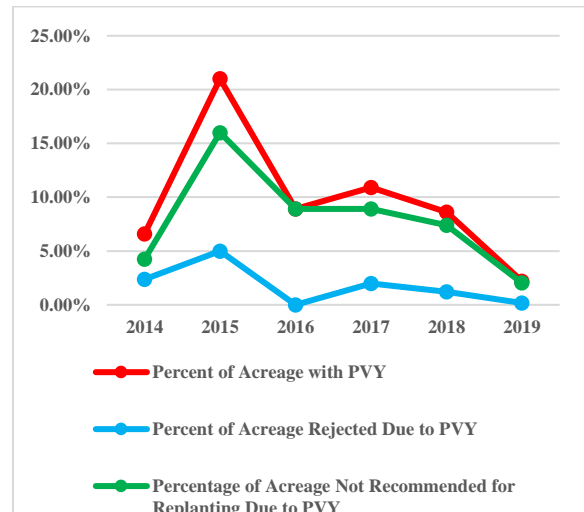


Figure 1. Acreage Testing Positive for PVY 2014-2019.

The incidence of PVY was low this season when compared to the average over the last five seasons. From 2014 to 2019, the average number of lots and acres failing the PHT was 3 and 78 respectively. In 2019, PVY was visually confirmed in two lots, whereas varietal mix was confirmed in one lot. A total of 7,302 wells were tested for PVY, PLRV, and other viruses.

These results confirm results from previous years that PVY is more likely to be

Generation	Percent
PN	5%
N	33%
G1	33%
G2	18%
G3	11%

Figure 2. Average percent of lots 2017-2019 entered for PHT

found in later generations. From 2017-2019 all lots failing the PHT were \geq G2 (FY3). Our laboratory tests appear to be accurate, considering that $<$ 30% of lots entered for the PHT are G2 or greater (Figure 2).

This is further demonstrated with the red bars in Figure 3.

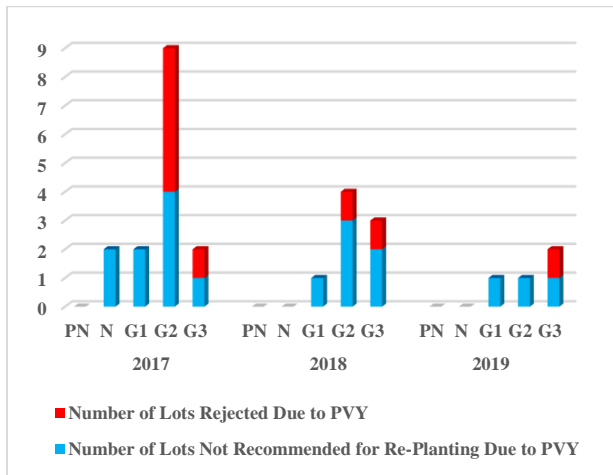


Figure 3. Generations testing positive for PVY in PHT 2017-2019.

Going forward, we will incorporate more laboratory testing into the PHT, while improving emergence on varieties that have not emerged well in Hawaii in recent years. In 2020 we will include the use of real-time PCR into the PHT, increase the number of lots to be sprout-tested, and double-dip any non-russet variety that did not break the 40% emergence threshold from 2018-2019. The following varieties will not be sent to Hawaii for the grow-out; they will be sprout-tested instead:

- Reveille Russet
- Vanguard Russet
- Waneta
- Frito Lay Variety 1
- Frito Lay Variety 2

PCAN has also arranged with individuals onsite to monitor the PHT lots between planting and visual readings/virus-testing. We have asked them to take measurements and stand counts on selected lots, and to send us pictures of those lots. This will greatly improve communication between PCAN and growers wanting to know the condition of their lots.

Latent Varieties

It is no longer required that all russet varieties be ELISA-tested as part of the PHT. Laboratory testing will only be required on the following varieties:

- Alpine Russet
- Austrian Cresenct
- Russian Banana
- Blazer Russet
- CalWhite
- Caribou Russet
- Chieftain
- Chipeta
- Classic Russet
- Crestone Russet
- Dakota Diamond
- Easton
- French Fingerling
- Gem Russet
- GemStar Russet
- Green Mountain
- Innovator
- Keystone Russet
- LaRatte
- Mesa Russet
- Mercury Russet
- Mountain Gem
- Pike
- Prospect
- Purple Peruvian
- Rose Finn Apple
- Russet Norkotah
- Sage Russet
- Shasta
- Shepody
- Silverton Russet
- Winema

Agency Surveys

The Potato Association of America has compiled two surveys to help seed growers and seed certification agencies better understand certification requirements among the different states across the United States. A general Agency Survey which

lists fee, acreage, and laboratory-testing requirements, as well as contact information for management heads of the different agencies can be found at the PCAN website here: <http://nebraskapotatoes.com/rules-regulations/other-state-info/>. You can also find information regarding PHT requirements for the different states here: <http://nebraskapotatoes.com/rules-regulations/other-state-info/>.

Change to Field Year Nomenclature

PCAN will be switching from the generation nomenclature to a field year (FY) system starting in 2020. A generation column will not be included on this year's acreage reports. We have included Figure 4 to help those not aware with the field year system.

Generation	Field Year
PN	FY 0
N	FY 1
G1	FY 2
G2	FY 3
G3	FY 4
G4	FY 5
G5	FY 6

Figure 4. Generation and field year nomenclature comparison.

Shipping Season Update

Shipping season is upon us, and we are looking forward to a great season. Our inspectors are all veterans, so we are expecting few issues on the personnel front. PCAN has introduced a new note sheet this year, which allows our inspectors to give a

clear percentage of internal and external defects, along within other categories. We will be tracking all defects studiously. The new note sheet also requires our inspectors to indicate the number of tubers being cut for blue-tag and green-tag inspections per sample. In the future, we hope to collect this information and return it to the growers individually. Maria has done a great job of compiling shipping point tolerances into an easy-to-read cheat sheet which can be found on our website. I will also include it here (Figure 5).

	Blue Tag	Yellow Tag
Hollow Heart	10% ¹	15%
Oversize	10%	10%
Undersize	5%	5%
Fusarium Dry Rot	2%	2%
Soft Rot	0.5%	1%
Late Blight	1%	2%
Variety Mix	0.25%	0.25%
External Defects	6%	6%
Internal Defects	5%	6%
Sprouts	20% with a single sprout greater than 1 inch	40% with a single sprout greater than 1 inch ²
Surface Scab	When affecting 5% of the surface	–
Russet and Pitted Scab	When affecting more than 1/3 surface area, or removal of more than 5% tuber weight	When removal scabs cause more than 10% tuber weight

1 Percentages are based on 100-, 200-, or 300-pound samples collected by inspectors at shipping point.
 2 After April 1st sprouts are not scorable against Yellow Tag Grade shipments.

Figure 5. Tolerances for defects commonly seen at shipping point

Thank you, and good luck this season.