

News from the Potato Lab

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December, 2018

Planting the Postharvest Test by Steve Hystad

The MSU Potato planted the postharvest samples from the 2018 seed potato crop at Twin Bridges farm in Waialua Hawaii from November 14-16. Over 600 samples were collected by Anna Jespersen and me shortly after harvest, treated to break dormancy, and shipped to Hawaii. Unfortunately, heavy rains prior to our arrival completely saturated the field prompting the farm manager to shuffle us to another location.



Steve Hystad and Jon Agnew planting potatoes at Twin Bridge Farm in Waialua, HI

With a narrow window of suitable weather forecasted, Nina and I (with the help of Twin Bridges staff) were able to finish planting in two and a half days walking over 35 miles in recording plot locations. So why do we plant seed potatoes in Hawaii each year? It's not just because we all need a vacation. Hawaii's rich soil and tropical climate provides an ideal environment to conduct a timely field evaluation for each sample submitted. Metrics such as disease incidence, varietal mixture, and chemical damage will be recorded through visual inspections at the end of December. Additionally,

leaf samples from each plot will be shipped to our lab for ELISA testing of PVY, PVX, and PVA. The results of field evaluation and lab testing are used as an indicator for seed lot health. Montana's seed potato producers will then make important management decisions including whether to re-certify (re-plant in Montana) or sell the product out of state.



Shawn Hystad, Steve Hystad, Nina Zidack and the crew.

Progress on Tuber Testing of 2018 Postharvest Samples

New rules for the 2018 crop required an additional sample for G1 lots over 2 acres and G2 lots over 20 acres. Growers had the option to send an additional post-harvest sample to the lab for PCR testing for PVY. The goal of the PVY tuber testing program is to provide our growers with a highly accurate and cost effective PVY detection assay that can produce results in a timelier manner relative to the post-harvest grow out in Hawaii. This year over 180, 400 tuber samples were submitted to the lab for our PVY tuber testing program doubling the number of anticipated samples for 2018. All G2 samples were treated to break dormancy and tested after 4 weeks via ELISA when sprouts were prominent. All remaining samples were sliced and processed by PCR. We are excited to announce that the lab should

be finished by Christmas. All results will be emailed out by Steve.

Eileen Carpenter Retiring

After 35 years of service to the MSU Potato Lab, Eileen is retiring at the end of December. She will continue to inspect during the summer so we won't be losing those incredible eyes for PVY anytime soon! Eileen was honored at the Montana Seed Potato Seminar in November and again with a retirement party on December 12 at MSU. A number of growers stopped in to thank Eileen as well as numerous MSU colleagues and students.



Eileen with some Manhattan Growers



Eileen with Potato Lab Staff and Students

Leaf Picking and Readings for 2018 PHT

Nina Zidack with the assistance of husband Walt will get the picking process started on December 20. We plan to send the first shipment of leaves to the lab on December 23 and Steve has people lined up to start testing on December 26. The samples were planted earlier this year and we are hoping to get the leaves picked before the plants get too big. Eileen will join me to start readings on December 28.

Thane Tobol selected for 2018 NPC Leadership School

Thane Tobol will be the 2019 Montana grower participant at the NPC Leadership Institute. This year's leadership and industry training will occur in Oregon and Washington, DC. Congratulations Thane and we look forward to hearing your report at next year's Seminar!

Tissue Culture and Microtuber Updates and Reminders from Elaine:

Deadlines for returning the 2019 plantlet order and the 2019 microtuber forms to the lab is December 20, 2018.

****If you are planning on growing any new lines that we do not have, please request them soon. It takes 3-4 months to test and increase new lines for spring planting.***

Shipping to Colorado and Exporting to Canada

Seed potato shipments to the San Luis Valley of Colorado require a late blight test. Potatoes must be submitted a minimum of 3 weeks before shipment. Colorado is also requesting a PVY strain test which can be performed on winter test samples. Their seed law sets a tolerance of 1% for PVY^{N-Strains}. **Please inform the lab if you are shipping anything to Colorado.** Also remember that all potato seed exported to Canada must be PCN tested. Seed going to Prince Edward Island needs to have a leaf roll test from the winter grow-out. If you are sending seed to Prince Edward Island, please **contact Steve to arrange for leaf roll testing by December 31.**

GMO Test - You must call the lab and request GMO testing The Potato Lab can use the leaves from the Hawaii test, or you can submit tuber samples. The cost of testing tubers is much higher. Take advantage of the cost by testing the leaves from Hawaii. Costs of GMO tests will be as follows:

Leaves - GMO test is \$45 per sample.

Tubers - GMO test is \$220 per sample.

The leaves will be here before the New Year, so let Steve know now if you want GMO testing. Talk to your buyers to see if they require this test.

DATES TO REMEMBER:

December 20, 2018 – Plantlet and microtuber orders due

February 12, 2019 - MPIA Directors Meeting, Bozeman