



PCS NEWS

Colorado Potato Certification Newsletter

September 2019

Summer Field Inspections

Summer field inspections wrapped up the week of August 19th! Although we had a late start with the unusual spring weather, we finished about the same time as last year. We did more leaf testing to verify results due to the frost and hail damage that happened earlier in the season. A few growers asked for early vine kill and will have to submit tuber samples for bacterial ring rot testing (BRR). This was approved because of a 2019 Crop Year rule change that allows lots to be killed before the standard 90 days and requires the grower to submit a tuber sample to be tested for BRR, using both PCR and ELISA.

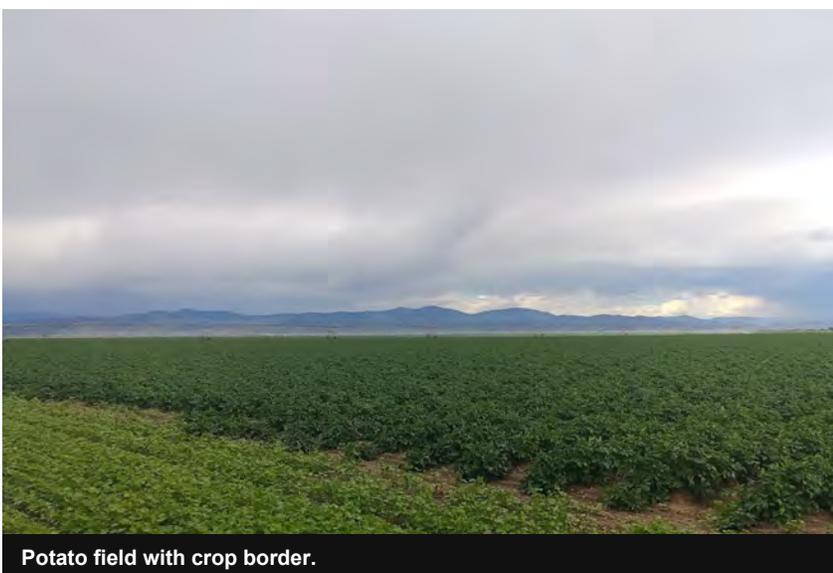
Total acreage was down this year: 6756 full certified seed acres and 1657 grower entry acres were entered for certification. There were 813 acres rejected or withdrawn and 202 acres were downgraded for PVY, Blackleg, and/or variety mix.

We continued with the 4 day inspection week this summer and had great success. Doing field inspections this way allowed for easier scheduling, saved money in the budget, and helped us to utilize Fridays for catching up on other PCS related work in the office and inspecting greenhouses.

The current 2019 Colorado Seed Directory is currently available online: <http://potatoes.colostate.edu/programs/potato-certification-service/crop-directory/>.



Sunflowers next to a field spotted during summer inspections.



Potato field with crop border.

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PCS Staff at Fort Collins Greenhouses Left to Right: Teresa, Michelle, Sarah, Carolyn, Andrew, Jeff, and Sarah.

Post Harvest Test-Greenhouse Pilot

In addition to the normal winter grow out in Hawaii, we will be trialing a greenhouse grow out at the Foot Hills campus in Fort Collins this year. We have limited space and will be accepting requests from growers who would like to try this. Our goal is to send most of the G1s, some Canelas, and fingerlings. These are generally the problem samples and our goal is to compare costs and crop performance.

Planting will take place the week of November 18th with visual readings to happen the beginning of January, depending on how the crop is growing. These samples will also require 100% leaf testing using ELISA. At this time, the cost will be the same as the standard Hawaii grow out. We hope to have some larger samples where we can send one to Hawaii and one to the greenhouse to better determine if there are any differences. If you would like to participate, please give Andrew, 719-588-0321, or Sarah, 719-754-3496 ext. 20, a call.

Storage Inspections

Storage inspections will be starting soon!

Please make sure to utilize the storage sheets and bin labels that were sent to you. If you would like an electronic version of the storage sheet to fill out, please contact Sarah, sarah.noller@colostate.edu, or Michelle, michelle.leckler@colostate.edu, to have one emailed to you. It is important that we see everything that you might possibly sell so that the proper amounts get into Seed Hub. We also need the total amount that was harvested. Make sure there is proper physical separation of all seed lots. Any combined lots will be assigned the higher PHT disease level. If you have any storage questions or issues, please give Andrew, 719-588-0321, or Sarah, 719-754-3496 ext. 20, a call.

COLORADO CERTIFIED SEED POTATOES Potato Certification Service		
Bin No. _____		
Bin Capacity _____		
Lot No.	Variety	CWT Stored

Storage Bin Card

Post Harvest Test

We have already been receiving samples for the winter grow out in Hawaii, but please remember these important dates. October 7th is the deadline for Canela Russets, Reveille Russets, and Rose Finn Apples. This gives us time to treat them properly to break dormancy. All other samples are due October 10th. The deadline for B samples is December 2nd. Please make sure that a PCS employee checks in your samples by calling ahead so we can meet you at the processing building. We appreciate all your efforts in providing the best representative samples!

The post harvest test plots will be planted October 28th-November 4th with field readings taking place December 5th-20th. Grower visitation days will be December 16th-17th. If you would like to come and see your post harvest test samples growing in Hawaii, please let us know in advance. We would love to show you how your crop performs and why a post harvest test is so important!



Andrew bagging potatoes from a clonal evaluation for PHT.

Direct Tuber Testing for PVY

Our 2 year participation in the SCRI multi-state direct tuber testing project for PVY was highly successful! We were able to obtain comparable results to ELISA and visual inspections. While we cannot get rid of winter grow out (there are more reasons than PVY for visually inspecting a crop for recertification), this will allow seed growers a chance to get some earlier disease results (1-2 months before the Hawaii results) by utilizing PCR, a molecular technique, on dormant tubers.

We will need two 400 tuber samples, one sample will go to Hawaii and we will keep one sample here for testing. The tests will be combined to give one PHT disease test result. CCPGA has agreed to charge the same amount as the winter grow out for this pilot. We will be able to accept up to 40 samples for testing this year and it will happen on a first come, first served basis. Please contact Andrew, 719-588-0321, or Sarah, 719-754-3496 ext. 20, if you would like to participate.



Current Research Projects

We are always hearing that PVY affects yield. This year Andrew Houser decided to do some research to see if we could show just how much PVY brings down yield right here in the San Luis Valley. He was able to find some willing commercial growers that had purchased new seed and also had the same variety as 1 year plant back seed planted on the same field. Four replications were staked out in each part of those fields to get an initial PVY reading. We will be harvesting those plots soon so that we can compare the yields and sending samples to Hawaii for post harvest testing. Look for results to come!

We also did some PVY strain ID testing using PCR, a molecular technique. We were able to do this in our rogue school plots where we observed some interesting patterns. In Canela Russet and Yukon Gold we found the PVY^{N:Wi} strain only. In Russet Norkotah 3 we found PVY^O and PVY^{N:Wi}. In Rio Grande Russets we found 3 different strains: PVY^O, PVY^{N:Wi}, and the tuber necrotic strain PVY^{NTN}. We also tested leaves from the yield study where we found Canelas to have PVY^O, PVY^{N:Wi}, and PVY^{NTN}. Russet Norkotah 296 was the other variety in the yield study. We found PVY^O, PVY^{N:Wi}, and PVY^{NTN}. We will continue to look at what strains of PVY are here in the valley. We can do this test for growers on any leaf material. If you would like to know what strains of PVY are in your lots, please call Sarah, 719-754-3496 ext. 20.



Contact Us

Give us a call for more information about our seed potato certification services.

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Visit us on the web at
potatoes.colostate.edu/potato-certification-service/

Clockwise: PCS crew harvesting a clonal evaluation field, funny potato, tracks found while inspecting.

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