PCS NEWS

Colorado Potato Certification Newsletter May 2018

Awesome Accomplishments!

Our very own manager, Andrew, of PCS is now ***Dr.*** Andrew Houser. Andrew just obtained his PhD in Horticulture with an emphasis in Plant Pathology from CSU and we took some time out for a surprise lunchtime cookout in honor of his great achievement. Congratulations, Andrew!

Clockwise from top left: Rob Davidson with graduate, Andrew Houser; Cake!; Lunch to honor Andrew's accomplishment!

"I'm glad it's over, and I am looking forward to the next chapter!"

- Andrew Houser, referring to earning his PhD

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Potato plantlets in vessels

Tissue Culture Help

Bugs!?! NOOOOOOO! I know no one wants to talk about this, but no matter how hard we try, pesky critters can sometimes show up. Our tissue culture specialist, Carolyn Keller, offers some helpful information if this has been an issue in your tissue culture laboratory...

By Carolyn Keller

Those of you who have a tissue culture lab as part of your operation know that having insects in the lab is one of the things that sends chills up your spine and having insects in an actual test tube or vessel is even worse!! I did a little research and found a seemingly effective way to rid culture vessels of insects while leaving the plants growing very well.

The paper I came across was titled "Eliminating Thrips From *In Vitro* Shoot Cultures of Apple with Insecticides" by Bhagwat and Lane; HortScience 38(1):97-100. 2003. Using the information presented, I was able to come up with a protocol that worked very well to eliminate thrips from in vitro cultures of potatoes.

I used Hi-Yield Systemic Insect Spray which has Imidacloprid as the active ingredient. This was purchased at a local greenhouse. I used a concentration of 5 mg/L or 1.67ml/500ml of media. The insecticide was added, using gloves, to the 500ml jar that was stirring on a stir plate. The gelling agent was then added, jar was microwaved, media poured into vessels or test tubes, and they were autoclaved. Plants that were infected with thrips were cut into the media and allowed to grow for 3 weeks. Infected plants were also cut into a control media with no insecticide.

During the growth period, the plants were monitored for chemical effects, but they seemed to grow well and, in fact, seemed to look healthier than the plants in regular media. I also saw this effect even if no thrips were present. At the end of 3 weeks, the plants were cut into fresh media. No thrips were seen in the treatment vessels while they were present in the control vessels. Thrips were not seen again in subsequent cuttings of plants treated with insecticide even if no insecticide was used again. It seemed to clean up the problem completely with one treatment and there were no harmful side effects to the plants!

I would be happy to visit with anyone who has questions or comments about this!

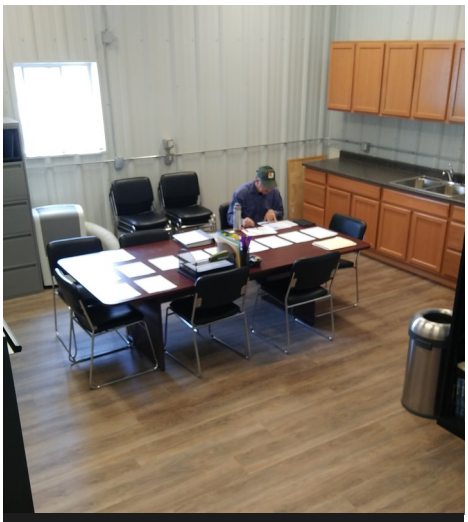
Remodeling

In order for CSU to accommodate living space for visiting graduate students here at the San Luis Valley Research Center, PCS has had to do some rearranging to have the space we need for our certification services. As many of you are aware, we have utilized the house on the property for staff offices, a meeting place for our inspectors, a place for growers to come and visit with any questions or concerns, and for all our files, etc.

We have moved the majority of our business to what is called the Processing Building, located on the North side of the property. This is the building where you all drop off tuber samples for Post Harvest Testing. We are the first office around the corner to the left. Michelle is still up front in the main building and can direct you, if needed, and Andrew will remain in his current office. Sarah Noller and Jeff Shawcroft's offices will be moved to the main building by the break room to get rid of the offices in the house, once the offices are completed.

We are also remodeling our Disease Testing Laboratory so that we can bring our temporary PCR lab into the main building (Teresa's current office and receiving area will become the PCR lab).

We expect to have all this completed before the summer season starts. This is all great news that will help us to provide you, our growers, with the best possible seed potato certification services.



Jeff Shawcroft working in the new office.

Rogue School

Our rogue school plot was planted 2 weeks ago with a wide range of varieties: Atlantic, Banana, Canela, Centennial Russet, Colorado Rose, Mercury Russet, Mesa Russet, Rio Grande Russet, Rose Finn Apple, Sangre 11, and Yukon Gold.

Our school, which helps our inspectors and growers to recognize PVY is a very important tool, especially with newer strains of virus that are harder to visualize. Our school will take place around the 3rd week of June. We will announce a specific date as the time nears depending on how the growing season goes.

Rick Haslar driving the tractor for the Rogue School planting.

Rogue School Field

Inspection Section

The time is nearing for our first inspections of the season! Where did the winter go? (Maybe we didn't really have one.) With planting probably very close to ending, we would like to offer up some friendly reminders.

- Please make sure all of your lots are marked appropriately so that our inspectors can find them easily.
- Keep in mind your spray schedule when asking for inspections. We will be making exit calls to give a quick summary of any issues found and to let you know we are safely out of your fields.
- We will be scheduling 3 inspections for G1's this year as well, so keep that in mind when scheduling. Please continue to call Michelle or Sarah to schedule your 1st, 2nd, 3rd, and any re-inspections.

Important Growing Season Info

Applications are due June 1st or 14 days after last plant date with payment and there is a $500 per day late fee! Please make sure that you have looked over your application and included all necessary documents: signature page, PVP permission to grow, NAHC, bulk certificates, tags, maps, and proper disease testing documentation. If you have any questions, please give us a call!

Call for Growers to Participate in a Pilot Project

In an effort to gain more information on the spread of PVY, we would like to have growers participate in in a pilot program that will lab test more G1 lots. We had more G1 rejections for PVY at winter test this year than in past years and want to understand why and where this might be coming from. We would offer this at no extra cost, as we are already picking leaves for the other mandatory G1 testing, and it would not affect your certification status. Any grower that would be willing to let us test their G1s for PVY by ELISA, please indicate that on your seed application or call Andrew or Sarah.

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/

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