



Plant Pathology Lab members celebrating a birthday (from left): Dr. Emran Ali, Laxmi, Katie, Lederson Ganan, William Samson, Dakota McFadden, Dr. Achour Amiri

WSU Tree Fruit Research & Extension Center

Wenatchee, Washington

Dakota McFadden

Research Intern – Plant Pathology Lab

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Testing *Botrytis cinerea* (Gray mold) spores on plates containing a different types of fungicide to determine resistant isolates.

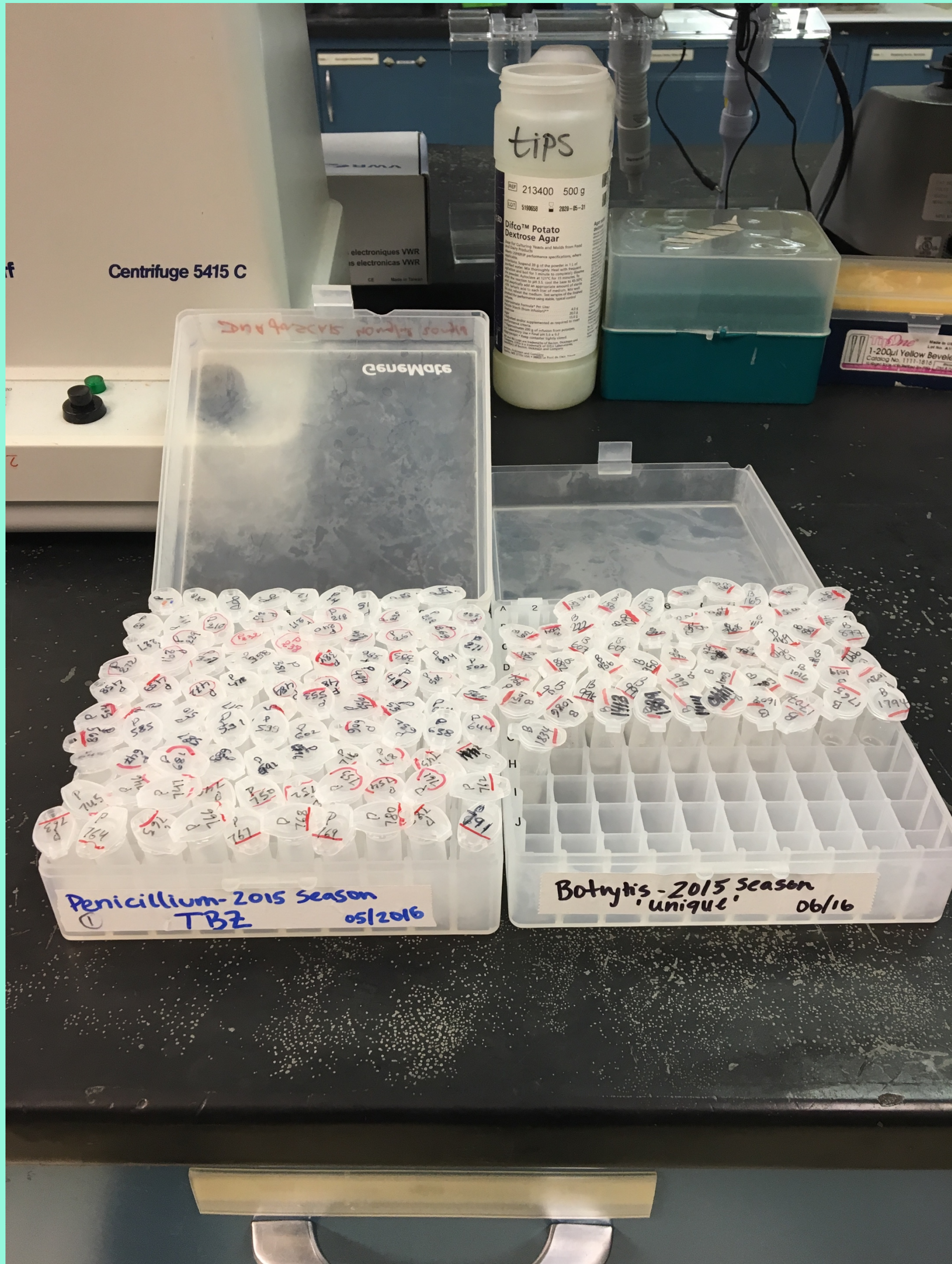


Collecting healthy apples from a commercial packinghouse for fungicide residue analysis with coworker William Samson on 7/5.

- ### Introduction
- The Tree Fruit Research and Extension center (TFREC) in Wenatchee was founded in 1937 when a bill was passed by state legislature in part with Washington State College.
 - Several research program are based at TFREC to research pathology, entomology, horticulture and breeding-related topics.
 - TFREC-researchers work closely with the industry to help improve productivity, quality and storability of multiple tree fruit
 - Next to the TFREC there is a USDA Tree Fruit Research Laboratory is comprised of offices, laboratories and fruit storages for USDA research in plant pathology, plant physiology, and postharvest horticulture.
 - The Research center is home to a wide spectrum of workers, with lots of cultural representation.
 - The center employs staff, faculty, graduate students, post-doctoral research associates as well as visiting scientists.



Bins full of Fuji apple treated with a fungicide at harvest and stored for 9 months at at 0°C (32 F). Bins have been sorted for collection of decayed apples and counted for total number of fruit to evaluate and compare the efficacy of different treatments.



Preparation of spore suspensions of *Botrytis cinerea* (Gray Mold) and *Penicillium expansum* (Blue Mold) in 20% glycerol for freezing at -20 °C. Spores can be stored for years and regrown when needed for further tests.



Healthy apples collected from the orchards on WSU TFREC Research orchard.



Bin full of decayed apples, sorted at a commercial fruit packing house in WA on 6/20. This fruit came from a room treated with a fungicide at harvest and stored at 0°C (32°F) for 9 months.



Development of postharvest decay on d'Anjou pears treated with fungicides in the orchard and stored for 8 months at 0.5°C (33°F).



A few clamshells of decayed Apples collected from commercial packing houses. Samples of rotten flesh are cut from the inside of the fruit and transferred to petri dish containing an artificial growth medium (Potato Dextrose Agar) for further in vitro tests.

Summary

- This internship was a vital point in my development as it was the first opportunity I have had to work full time.
- It taught me how to work well as a team member as well as learning communication skills very important when working with coworkers who have different first languages and cultural backgrounds.
- If I ever encounter problems with pathogens in a greenhouse, landscape or nursery I have the knowledge to isolate and perform tests on the pathogens in search for the best way to control them.