

9 – Cytospora Canker in Peaches 2019 Extension Internship Proposal

Research and Extension Mentors

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Region: Western Colorado – Mesa Country

Internship goals, scope and objectives:

This internship will support an ongoing project evaluating control measures for Cytospora canker on peaches and cultural practices that may be correlated to disease severity in orchards. The internship **Goal** is to help assist in experimental studies, collecting and analyzing data from several studies examining IPM strategies for Cytospora canker management. **Scope:** The intern will collect soils from organic and conventional peach growers and survey orchards for incidence and severity of Cytospora. From this soil, microbial communities and soil health parameters will be measured and assessed. The **Objective** is to determine if soil condition and microbial communities can be correlated to Cytospora canker incidence and severity within conventional and organic systems.

Student learning outcomes

The intern will gain a better understanding of diseases and pests and their management in peach and orchard systems. The student will also learn about field research design and will gain laboratory skills including microbiology and molecular tools. The intern will also have the opportunity to attend and present their on-going work at the orchard field day at the Western Colorado Research Center and meet and network with a wide variety of tree fruit growers. The intern will assist Susan Carter at the Mesa County extension office and gain a better understanding of the goals and mission of extension and the day-to-day projects agents are involved in.

Ongoing collaborations

The mentors of this project currently collaborate on understanding how to best manage Cytospora canker in peach orchards. This internship will expand the research to understand the

importance of below ground processes. We have several growers that are also interested in collaborations, so this will enhance their role in the research and broaden these partnerships.

Support of stakeholder needs

In western Colorado, infections caused by *Cytospora* spp. can reduce fruit production and shorten tree longevity. All peach growers in Colorado are currently dealing with high rates Cytospora canker mortality and the disease is having a discernable impact on all decisions concerning orchard establishment, management and replacement. Through the Cytospora Working Group, growers have requested that research be conducted on IPM strategies.

Travel funds

The student will need to be based in Mesa County and housing assistance may be provided at the Western Colorado Research Center. Travel costs will be provided.