

## 2021 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 spore traps from organic and conventional peach growers and survey peach, cherry and apple orchards for incidence and severity of *Cytospora*. From this collection, we will quantify and correlated spore production with water regimes. The **Objective** is to determine if watering methods (drip vs sprinkler) can be correlated to *Cytospora* canker incidence and severity within conventional and organic systems, and to determine if the incidence and severity of *Cytospora* canker in cherry and apple orchards.

### Student learning outcomes

The intern will also gain a better understanding of diseases and pests and their management in peach and orchard systems. The student will also learn field research designs 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 also assist Susan Carter at the Mesa County extension office and will 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 efficacy of currently used management tools, like canopy sprays and different water techniques. 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 to identify IPM strategies.

### **Travel funds**

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