

12. Integrated pest management strategies in organic sweet corn

Mentors: [Frank Stonaker](#), [Whitney Cranshaw](#), [Meredith Shrader](#)

Location: Tri River Area (Montrose County)

1. Extension mentor and application contact information.

Frank Stonaker; mentor

WCRC OARS-RM, 30624 Hwy 92, Hotchkiss, CO 81419

frank.stonaker@colostate.edu

Tel. 970-250-7559

Whitney Cranshaw; co-mentor

Professor and Extension Specialist

Office: C201 Plant Sciences

Lab: E202 Plant Sciences

Whitney.Cranshaw@ColoState.edu

970-491-6781 office

2. In what region(s) will the student be working (county/region/state)?

- a. Montrose County, Tri River Area, Western Colorado

3. In less than 150 words, please describe the proposed internship goals, scope, and objectives.

- a. Scope:
 - i. The scope of the project is to increase the knowledge base of seedcorn maggot (SCM) (*Delia platura* M.) biology in organic sweet corn production systems and develop BMPs for organic sweet corn growers in the region.
- b. Goals:
 - i. The intern will become familiar with the value of collaborative research, and the value of stakeholder experience and knowledge in planning an applied research project. The intern will develop an appreciation for complex biological systems at play in production agriculture. The intern will be introduced to opportunities for future livelihood and continued education in the field of applied entomology.
- c. Objectives:
 - i. The intern will participate in field research techniques including insect scouting and monitoring, working with Day Degree models, and the collection and accurate recording of field research data. The intern will learn the importance of clearly identifying goals, processes, and communicating outcomes to a stakeholder audience.

4. *Which PRU activities are included in the scope of this internship?*
 - a. PRU: Cropping Systems

5. *What student learning outcomes do you anticipate and are there opportunities for professional development?*
 - a. The student will have the unique opportunity of working closely with a stakeholder/research/extension team that has a very specific problem at hand. This experience with a diverse community of participants will illustrate the challenges and benefits of collaborative applied research in the agricultural field, and will better prepare the student for future employment and/or study. This experience will provide the student with what I believe is the purpose of Extension; serving a community need with applied science-based research. During the summer, there will be research station field days that the intern will be encouraged to attend. Additionally, a local growers' association (Valley Organic Growers Association) organizes regular on-farm gatherings (Know Your Farmer) specifically designed to allow community members to become acquainted with local farmers and their practices. Local interns are encouraged to attend these events in order to broaden their experience and meet peers with common interests.

6. *How does this internship support identified stakeholder needs in your county/region?*
 - a. Broadly, support of IPM programs in Colorado is critical for success of farming enterprises and protection of natural resources and food from contamination. More specifically, development of a successful management program of SCM in organic sweet corn production is critical for the success of this crop. Stand destruction in excess of 80% by this pest is not uncommon in organic plantings.

7. *What is your experience with mentorship? In less than 100 words, please describe your experience with and approach to mentorship.*
 - a. For nine years, while managing CSU's Specialty Crops Program (HLA) I employed over 60 student interns that were involved in all aspects of growing and marketing organic vegetables, and participating in applied research projects at CSU's Horticultural Research Station (now ARDEC south). I am a strong believer that formal education programs need an applied arm. I have engaged actively with students in application of what they learn in the classroom, and expand that to include field experience. Here at OARS-RM we meld research with extension and all of the staff and interns are involved.

8. *Are there on-going connections with CSU faculty associated with this project, or is there identified faculty interest?*
 - a. In 2019 we initiated a pilot project with a local grower addressing this issue. This project is now funded (SCBG) through 2022. Frank Stonaker, (30/70 CE/AES position) will be the lead on this project, Dr. Cranshaw will continue to participate as a co-PI, and has agreed to participate as the on-campus mentor.

9. *Are travel funds available? Opportunities to provide student assistance with housing?*

- a. Travel funds to and from campus will be made available at the beginning and end of the internship. One collaborating farmer has indicated his interest in supporting this research and an intern. A CSU vehicle will be available for farm visits in the region. Comfortable housing on site will be provided, and may be shared with other students and/or visiting scientists.
- b. The intern applicant must have a valid driver's license.**