GUATEMALA

Principal Investigator: Dr. Rolando Cifuentes

Internship Title: Promoting technology for horticulture production as adaptation to climate change in Guatemala

Time Period: June or July 2025 (14-day in-country face-to-face internship); Remote activities May & August

Project Background: The project "Promoting technology for horticulture production as adaptation to climate change in Guatemala" seeks to evaluate and select the best agricultural practices to guarantee horticultural sustainability, adequate and efficient management of soils and water, achieving greater productivity, better health and quality of the soil, better quality of products, better income and better nourished families. The study will be in the central and western highlands of Guatemala and includes horticultural crops that are locally produced. For the Trellis Fund Fellowship Program, this project contemplates the participation of graduate students to collaborate in particular activities like:

- Post harvest management. Implement workshops with producers, women and young.
- Cooling and drying workshops for vegetables in the highlands
- Workshops on regenerative agriculture, soil health/quality
- Drip irrigation and fertigation workshops for vegetables
- Nutrition programs for vegetable crops
- Use of cover crops and reduced tillage in vegetables
- Production costs and profitability of the Ag systems

Research Question(s) or Specific Issues to be Addressed	**Range of Acceptable Disciplines**	**Deliverables**
What are the best practices for proper post-harvest management of vegetables What are the most appropriate technologies for cooling and drying of vegetable products handled by small producers What are the most appropriate practices for soil and water management in the highlands What is the soil health or soil quality index of some sites involved in vegetable production in the highlands? What are the most appropriate nutrition programs for vegetable production under the soil conditions of the highlands? Is vegetable production a profitable activity for small-scale producers in the highlands?	Agronomy Soil fertility Plant nutrition Postharvest management Agroecology Soil and water management Ag economics	Design a postharvest management manual showing the most appropriate practices for small producers. Design a short video on the most appropriate practices for post-haverst management with the support of local technicians spoken in a local language. Design a manual for improving soil health and quality. Generate databases with updated information on production costs of different vegetable and cropping systems for crops of the region.