

Experiential Learning to Support Horticulture Industry During COVID-19

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The Situation

The COVID-19 pandemic has severely disrupted daily life around the world. Although some industries experienced slowdowns, many local horticulture operations in central Florida saw increased demand for products due to heightened interest in at-home gardening as many people transitioned to working from home. For this reason, the horticulture industry quickly adapted to operating under CDC guidelines to protect workers. However, statewide shutdowns left many horticultural professionals with limited in-person opportunities to learn critical skills and sustainable management practices. While online trainings existed for some topics, there is extreme value in hands-on classes for scouting and pest/pathogen identification as these skills are best developed through practice. The horticulture industry quickly adapted to COVID-19, thus it is imperative that educational programming also evolve to ensure stakeholders can still participate in valuable experiential learning opportunities. The purpose of this program was to demonstrate best practices for offering safe in-person programming during COVID-19.

Materials and Methods

Social Distancing and Class Structure

Three sessions were held over a month-long period with 19 participants from horticultural operations in central Florida. Masks were worn at all times and provided to participants if they did not bring one. Hand sanitizer was available in every class. Class location rotated between a large auditorium, an outdoor pavilion and two local nurseries to accommodate social distancing. A post-workshop survey was used to assess both perceived and measured knowledge gain, as well as the adoption of various practices learned.

Instruction and Activities

Course content was designed as introductory and interdisciplinary trainings on scouting and integrated pest management (IPM) with the goal of increasing economic and environmental sustainability at participants' horticultural operations. Instruction included interactive lectures, hands-on activities, and field visits with instructors teaching both in person and virtually. Most lectures were delivered by an in-person presenter, but some were delivered by instructors teaching live via Zoom projected onto a large screen. For hands-on activities, participants rotated through activity stations bringing a set of scouting tools to each station that only they used. Field visits included guided scouting activities where participants could take photos of potential plant problems and later regroup for discussion.



Instructor demonstrating where to look for pathogens on seedlings when scouting.



Field trip where participants engaged in a guided scouting activity at a local nursery.



Participants learning in the field about greenhouse set up/management and how it relates to IPM.

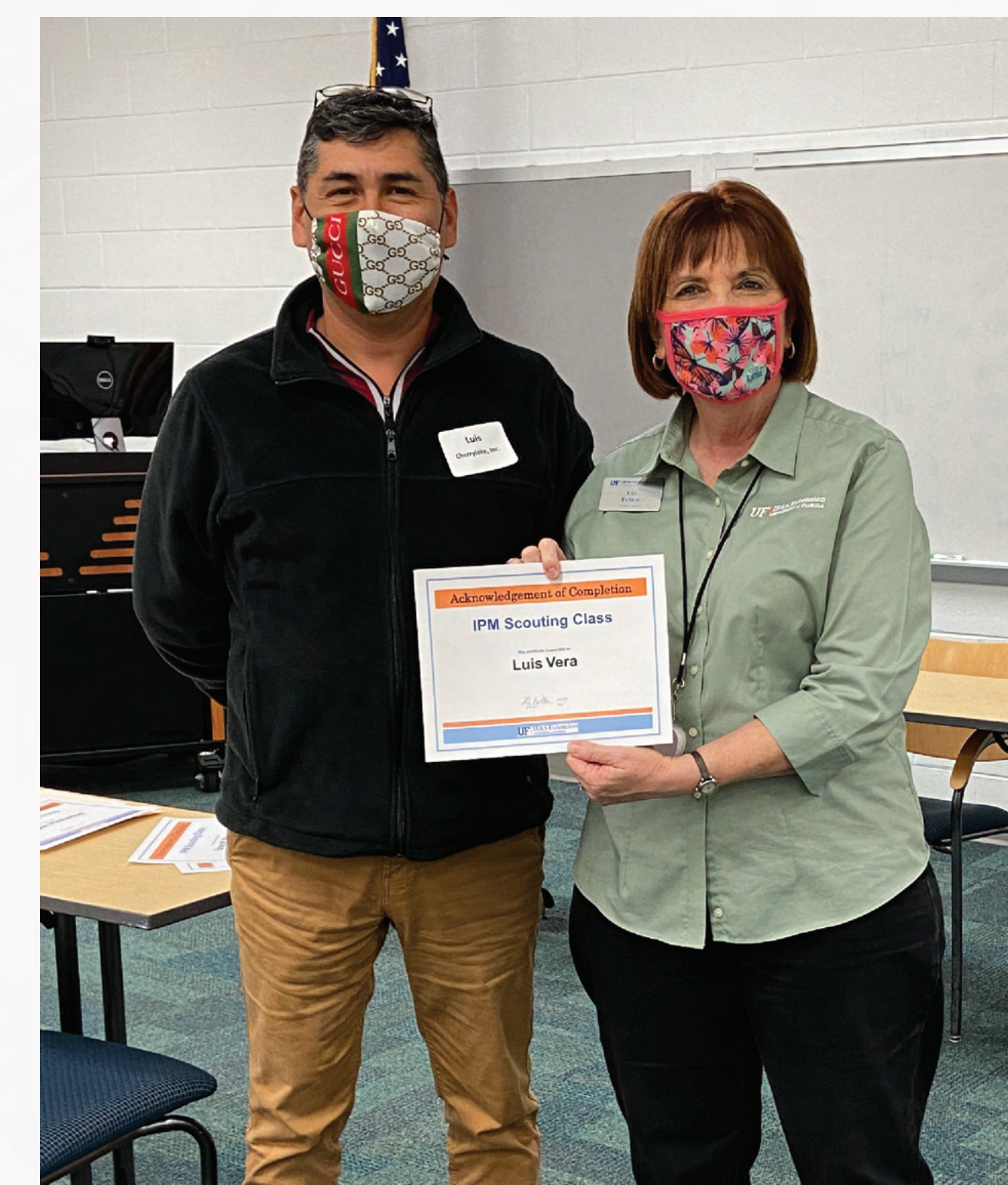
Results

92.3% of survey participants (n=13) claimed that they increased their knowledge level on one or more topics related to scouting and IPM.

Participants scored an average of **79.5%** on post-survey knowledge-based questions.

76.9% of participants indicated they have already implemented one or more

IPM practices* at their horticultural operations by the end of the third class.



Participant receiving his certificate of completion for the class.

*Some adopted practices include scouting strategies (76.9%), using science based resources in identification and decision making (76.9%), monitoring for pH and EC (69.2%), record keeping (53.8%), and proper pest identification (46.2%).

Conclusions and Future Directions

The scouting class was successfully adapted to accommodate safety precautions during the COVID-19 pandemic, while still providing hands-on training to local horticultural professionals. Despite the challenges associated with COVID-19, the classes resulted in knowledge gain and the adoption of sustainable scouting and IPM practices. This class demonstrated the use of best practices for safely conducting an in-person training during the pandemic. As a result of this success, the scouting class will be implemented again in November 2021. Based on observations from this class and previous offerings, the class may be divided into two groups in the future, beginner and intermediate to advanced horticultural skill level, to better address stakeholder needs.