TREE FRUIT II
Session Chair: Duane Greene, UMass**; Co-moderator** Jon Clements, UMass
Approved CEUs: 2 IPM | Pesticide Credits: 2 for New England states; 2 for New York (1A, 10, 22)

Evaluating the efficacy of multi-cultivar grafted trees as perennial trap crops for multiple pests - Dr. Jaime Pinero

Trap cropping is a culturally based IPM practice involving the use of very attractive plants to pull the targeted insects away from the cash crops, in such a way that pest numbers in the cash crop are way below economic thresholds. Here, Dr. Pinero will present the results of a long-term project aimed at evaluating the attractiveness of selected perimeter-row trees grafted with multiple cultivars known to be attractive to pests, to be used as perennial trap trees. Ten orchards in Massachusetts, two in New Hampshire and one in Maine have created more than 100 grafted trap trees since 2018. The first two years of the project have yielded promising results, in particular for apple maggot fly (AMF). Grafted trees are attracting at least twice as many AMF as non-grafted trees. Similar results have been found for plum curculio and tarnish plant bug.

About Jaime: Dr. Pinero is an Extension Associate Professor who has been involved in entomological and IPM Research for more than 20 years. In 2005, Jaime was awarded a Ph.D in Entomology from the University of Massachusetts. After spending time in Switzerland, Hawaii and Missouri, Jaime returned to UMass where he is holding a 3-way appointment in research, extension, and teaching. His research seeks to develop behaviorally-based pest management tools such as attract-and-kill systems that are based on information from insect sensory ecology and behavior.

Fire blight management in high density orchards - Dr. George Sundin

Dr. Sundin will cover biology of the fire blight disease and spread in high density plantings. He will discuss timing and the use of antibiotics (streptomycin, Kasugamycin, oxytetracycline) for fire blight blossom blight management, and the use of the growth regulator prohexadione calcium + resistance inducer acibenzolar-S-methyl for shoot blight control.

About George: Dr. Sundin is University Distinguished Professor and Extension Specialist at Michigan State University. Dr. Sundin is recognized as a worldwide authority on understanding and controlling apple scab and fire blight in tree fruit.

Effective use of fire blight forecast models in New England - Dr. Dan Cooley

Fire blight models in decision support systems (DSSs) such as NEWA are a key tool in managing the disease. However, how to match management actions, particularly spraying streptomycin, to DDS output isn't always obvious. It's critical that growers understand the meaning of NEWA or other DDSs recommendations to prevent unnecessary sprays and, more importantly, to prevent control failures.

About Dan: Dr. Cooley is a Professor in the Stockbridge School of Agriculture and Associate Director of the Stockbridge School of Agriculture. A focus of his recent research is to use computer models in an attempt to better control diseases in tree fruit.

Apple scab fungicides and use strategies - Dr. George Sundin

Dr. Sundin will discuss various classes of fungicides important for apple scab management including succinate dehydrogenase inhibitors (SDHIs), focusing on activity and resistance management.

About George: Dr. Sundin is University Distinguished Professor and Extension Specialist at Michigan State University. Dr. Sundin is recognized as a worldwide authority on understanding and controlling apple scab and fire blight in tree fruit.