

**Invasive Insect Certification Program: For Landscape, Nursery, and Urban Forest Pests**

**Location:** Hadley Farms Meeting House  
41 Russell Street, Hadley, MA 01035

**DAY 1: Thursday, February 2, 2017: The Characteristics, Impacts, and Costs of Invasive Insects with a Discussion of Related Federal and State Regulations**

9:00 AM – 9:50 AM

Characteristics of Invasive Insects and How They Get Here. – *Ms. Tawny Simisky, UMass Extension*

*A brief discussion of what characteristics enable insects to be invasive, general ways in which insects get introduced to new places, a short review of Integrated Pest Management (IPM), and prioritizing that strategy for the management of insect pests.*

10:00 AM – 10:50 AM

The Impacts and Costs of Invasive Insects in the United States, With a Focus on Massachusetts. – *Dr. David Orwig, Harvard Forest, Harvard University*

*An overview of the impacts and costs of invasive insects in the United States, with a focus on Massachusetts and the potential costs to its communities and the environment. Opportunities to provide solutions to some of these problems for the future will be suggested.*

**10:55 AM – 11:15 AM (Break)**

11:15 AM- 12:05 PM

The Animal Plant Health Inspection Service, Plant Protection and Quarantine Regulatory and Survey Programs with a Focus on the Federal Regulations Pertinent to Invasive Insects in Southern New England. – *Ms. Kate Aitkenhead, United States Department of Agriculture- Animal and Plant Health Inspection Service and Mr. Ryan Vazquez, United States Department of Agriculture- Animal and Plant Health Inspection Service*

*This will be a discussion describing the PPQ programs and the agencies involved in the cooperative pest detection and eradication efforts currently in southern New England. Participants will be introduced to their State Plant Health Director, State Plant Regulatory Official, and who to notify if you believe you have found an invasive insect. Federal regulations surrounding Asian longhorned beetle and emerald ash borer as well as the movement of firewood in New England to be discussed.*

**12:10 PM – 1:15 PM (Lunch on Your Own)**

1:15 PM – 2:05 PM

Hemlock Woolly Adelgid and its Impacts on Forests in Massachusetts and New England. – *Dr. David Orwig, Harvard Forest, Harvard University*

*A discussion of the identification, life cycle, hosts, and associated damage from hemlock woolly adelgid. An overview of its impacts on forests in Massachusetts and New England.*

2:10 PM – 2:30 PM: Instructions for the quiz assessments for those attending all 3-days of the training and seeking a certificate.

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**DAY 2: Thursday, February 16, 2017: Invasive Forest and Agricultural Insects in Massachusetts: Highlighting Current and Potential Future Pests**

9:00 AM – 9:50 AM

Invasive Forest Insects in MA: Identification, Life Cycles, Hosts, Damage, and MA State Regulations. – *Mr. Ken Gooch, MA Department of Conservation and Recreation*

*A presentation of the many different invasive forest insects in MA such as Asian longhorned beetle and its regulations, emerald ash borer, and southern pine beetle among others. Defoliation across the state to be discussed in relation to gypsy moth and winter moth.*

10:00 AM – 10:50 AM

Invasive Agricultural Insects in MA: Current and Potential Future Pests – *Dr. Jennifer Forman Orth, MA Department of Agricultural Resources and Sarah Grubin, MA Department of Agricultural Resources*

*A review of invasive insects in MA that have the potential to impact agricultural commodities, along with the pest survey and management efforts conducted by MDAR. Current pests like brown marmorated stink bug and spotted wing drosophila will be highlighted, along with potential future pests covered by the state's CAPS program (old world bollworm, spotted lanternfly, citrus longhorned beetle, etc.). The presentation will cover identification and biology of these pests, host plants, MDAR's pest outreach efforts, and how to report new pest finds.*

**10:55 AM – 11:15 AM (Break)**

11:15 AM- 12:05 PM

Winter Moth, Gypsy Moth, and Cynipid Gall Wasp Research and Progress: A Massachusetts Perspective. – *Dr. Joseph Elkinton, University of Massachusetts*

*A quick review of the identification, life cycles, hosts, and damage from these important forest and landscape pests. Biological control, where applicable, to be discussed along with the timing of other management strategies. Historical, current, and future perspectives to be discussed.*

**12:10 PM – 1:15 PM (Lunch on Your Own)**

1:15 PM – 2:05 PM

Hemlock Woolly Adelgid, Elongate Hemlock Scale, and Emerald Ash Borer Research and Progress: A Massachusetts Perspective. – *Dr. Joseph Elkinton, University of Massachusetts*

*Research for these important forest and landscape pests and a discussion of biological control where applicable, along with the timing of other management strategies. Historical, current, and future perspectives to be discussed.*

2:10 PM – 2:30 PM: 20-Question quiz for **Day 1** of this training for attendees seeking a certificate.

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**DAY 3: Thursday, March 2, 2017: Movement and Biological Control of Invasive Forest Insect Pests and the Interface with Forests and Managed Landscapes in Invasive Insect Management**

9:00 AM – 9:50 AM

Firewood Movement as a Pathway for Invasive Insects: Examples and Best Management Practices– *Dr. Nate Siegert, United States Forest Service*

*A presentation of research highlighting the significance of firewood movement as a pathway for human-assisted dispersal of invasive insects. Best management practices and discouraging the long-distance movement of firewood.*

10:00 AM – 10:50 AM

The Emerald Ash Borer: The History, Movement, and Continued Spread of a National Pest – *Dr. Nate Siegert, United States Forest Service*

*The history and introduction of the emerald ash borer and its spread throughout the US. Applied research highlighting the management of emerald ash borer in forested and landscaped areas.*

**10:55 AM – 11:15 AM (Break)**

11:15 AM- 12:05 PM

The Risks and Benefits of Biological Control: A Case Study of the Emerald Ash Borer – *Dr. Juli Gould, United States Department of Agriculture- Animal and Plant Health Inspection Service*

*The factors that go into making decisions about approving the release of exotic biological control agents will be discussed, as will the permitting and testing process prior to release of non-native biocontrol agents. Highlighting Otis Quarantine Facility research and the biocontrol of EAB: key species involved, releases in MA and New England, current status, and measuring success.*

**12:10 PM – 1:15 PM (Lunch on Your Own)**

1:15 PM – 2:05 PM

Invasive Insects as Pests of Managed Landscapes – *Dr. Gregory Hoover, Ornamental Entomologist, Penn State Department of Entomology*

*Identification, life cycles, hosts, damage, and management of invasive insect pests of landscapes, such as: black vine weevil, imported willow leaf beetle, viburnum leaf beetle, spotted lanternfly, calico and Japanese maple scales, birch leafminer, European pine sawfly and pine shoot moth.*

2:10 PM – 2:30 PM: 20-Question quiz for **Day 2** of this training for attendees seeking a certificate to be held in-class. The quiz for **Day 3** of this training to be distributed as a take-home assessment. **Please mail back to:** UMass Extension, French Hall, 230 Stockbridge Road, Amherst, MA 01003-9316 **postmarked by the Friday, March 10, 2017 deadline.**