

Horticulture Industry Integrated Pest Management Symposium

Thursday, September 26, 2019, 9:00 a.m. to 4:00 p.m.



9th Annual Symposium for Professionals in the Horticulture and Landscape Industry
at The North Carolina Arboretum, Asheville, N.C., in conjunction with North Carolina Cooperative Extension

Registration Fees

Early Bird Through September 6: \$90 Arboretum Member | \$95 Non-member
From September 7: \$120 Arboretum Member | \$125 Non-member
Lunch and snacks are included in the registration fee.

[REGISTER ONLINE](#)

Approved Continuing Education Units

International Society of Arboriculture: P(4.5), CS(4.5), CA(4.5), US(4.5), MS(4.5), AL(4.5)
North Carolina: NCDA & CS D (3), G(1), I(2), L(3), N(3), O(1) X(3)
North Carolina Landscape Contractors' Licensing Board: L(4)
Georgia: 3 hours in categories 21, 22 and 23 with 2 hours in private category
Tennessee: 3 points each in categories 1, 2, 3, 10, 12
South Carolina: Core 3.5

9:00 – 9:15 a.m. Welcome and Announcements

Plenary Session Auditorium

9:15 – 10:15 a.m. Keynote: **Stanton Gill**, *Taming the Beast*
10:15 – 10:30 a.m. Break

Breakout Sessions *Participants may rotate between the sessions.*

10:30 – 11:15 a.m. Breakout Session I

Auditorium **Emelie Swackhamer**, *Spotted Lantern Fly*
Classroom 2 **Ron Valentin**, *Pest Management in Propagation*
Locke Craig **Andrew Loyd**, *A Global Economy: A Major Driver of Emergent Diseases in the U.S*

11:30 a.m. – 12:15 p.m. Breakout Session II

Auditorium **Steve Frank**, *The Native Plant Paradox: The Costs and Benefits of Using Native Trees in Urban Landscapes*
Classroom 2 **Stanton Gill**, *Greenhouse Pest Control Decisions*
Locke Craig **Lindsey Thiessen**, *Diseases of Industrial Hemp and Their Management*

12:15 – 1:00 p.m. Lunch

1:00 – 1:45 p.m. Breakout Session III

Auditorium **Stanton Gill**, *Dealing With the Rising Problem of Scale - Both Armored and Soft*
Classroom 2 **Thom Green/Margot Wallston**, *Renewed Hope for Hemlocks: Update on IPM Strategies Being Implemented Locally and Regionally to Control Hemlock Woolly Adelgid*
Locke Craig **Carol Glenister**, *Working the Wild Side of Biocontrols: Growing Your Own Beneficials*

1:45 – 2:00 p.m. Break

Final Session Auditorium

2:00 – 3:00 p.m. **Nancy Adamson**, *Plantings to Support Pollination and Pest Management*
3:00 – 4:00 p.m. Pesticide Credits Issued at Registration Table

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Horticulture Industry Integrated Pest Management Symposium Speakers 2019

Dr. Nancy Adamson serves as the pollinator conservation specialist with the Xerces Society for Invertebrate Conservation & Natural Resources providing training and technical support to farmers, gardeners and organizations on pollinators, beneficial insects and native habitat restoration. She earned a doctorate in entomology from Virginia Tech.

Dr. Steve Frank conducts research to understand why pests become so abundant on urban trees and how to improve the resilience of urban forests. His research focuses on understanding how urban features like impervious surface cover and high temperatures affect tree stress and pest infestations. Information gained is used to develop tree planting recommendations and extension materials. Frank holds a doctorate in entomology from the University of Maryland.

Dr. Stanton Gill is the University of Maryland Extension Specialist in IPM Nursery and Greenhouse Management at Central Maryland Research and Education Center in Ellicott City, Maryland. Over his long career he has presented at the international, national and state levels and served many professional associations. Highly published, Dr. Gill is featured in books and publications with subjects focused on insect, disease and bio controls.

Carol Glenister founded IPM Laboratories, Inc. in 1981. Her company supplies beneficial insects, mites and nematodes used for controlling plant pests. She helps growers set up biological control programs and does research on creating supportive plant habitats for these natural enemies. She holds a master's degree in entomology from Cornell University.

Thom Green is the outreach associate for the Hemlock Restoration Initiative. He served previously through AmeriCorps Project Conserve as the HRI Stewardship and Volunteer Engagement Associate and later as Lead Forestry Technician. After working for several years as an environmental educator in his native Oregon, Green moved to western North Carolina in 2014 to earn a master's degree in biology with a focus in forest ecology from Western Carolina University.

Dr. Andrew Loyd is a research scientist specializing in plant pathology and mycology with Bartlett Tree Research Laboratories in Charlotte, North Carolina. He previously served as an agent with the Louisiana State AgCenter Cooperative Extension Service in New Orleans, Louisiana. He holds a doctorate in forest resources and conservation from the University of Florida and the master's degree in plant pathology from North Carolina State University.

Emelie Swackhamer serves as a horticulture educator for Penn State Extension in southeastern Pennsylvania for the last 23 years. Her programming emphasis is on the commercial green industry and consumer horticulture audiences, helping people diagnose plant problems and implement practical management options. She has been on the educational front line of the spotted lanternfly invasion since its discovery in 2014 and participates in several ongoing research projects. She holds a master's in plant pathology from North Carolina State University.

Lindsey Thiessen serves as assistant professor and extension plant pathologist, specializing in field crops and tobacco for North Carolina State University and the Cooperative Extension Service. She earned a master's degree in soil science from Texas Tech University and her doctorate in botany and plant pathology from Oregon State University.

Ron Valentin leveraged a childhood interest in insects to managing and producing the biological control agents for the family greenhouse operation by the time he was a teenager. He completed his education in crop protection management, biochemistry and vegetable production at State Secondary College of Agriculture in De Lier, Netherlands and worked in biological control technical support in the Netherlands and several other European countries before immigrating to Canada in 1997. Valentin is currently director of technical business, BCA at BioWorks, based in Victor, New York.

Margot Wallston aims to engage, empower and inspire the public to participate in fostering hemlock and ecosystem health. She developed the Hemlock Restoration Initiative program in 2015 and serves as its director. Wallston's involvement in hemlock conservation stems from a background in land conservation, plant ecology and environmental education. She obtained a bachelor's degree from Wesleyan University and later studied environmental science and botany at UNC Asheville and the Highlands Biological Station.

Horticulture Industry Integrated Pest Management Symposium Program Descriptions 2019

Keynote

Dr. Stanton Gill, *Taming the Beast*

Urban landscapes are being continually assaulted with new insect, mite and disease introductions. Learn what research efforts are underway to deal with these pests. Plant breeding for resistance, new insecticide classes, microbial controls, new technology with disease and insect predictors: all are methods being used to address the challenges. Learn how scientists are investigating using drones for monitoring and spot treating for pests.

Breakout Session I

Emelie Swackhamer, *The Spotted Lanternfly: What You Need to Know and How We Are Fighting the Invasion*

Lycorma delicatula, commonly known as the spotted lanternfly, threatens many important plants including grapes and trees. They also create a nuisance in residential landscapes. This presentation will focus on the biology and behavior to help attendees know what to watch out for, with examples drawn from the situation that has been unfolding in Pennsylvania and surrounding states over the last five years. Topics covered as well include management options, regulations to slow the spread, and a summary of current research.

Ron Valentin, *Pest Management in Propagation*

Early Plant development during propagation is the foundation of any crop grown. Problematic germination, starting with weakly rooted cuttings, often leads to a struggle trying to bring a crop to a good end with high quality products. This also relates to plant health in the form of pest and disease related issues. Historically, the term ‘zero tolerance’ was used to receiving cuttings or young plants, meaning a plant without any signs of thrips, aphids or whitefly. But how realistic is this? Does ‘Zero Tolerance’ actually exist? And what has trying to get there done to the efficacy of the already limited amount of ‘tools’— in the form of pesticides – that are in the tool box? The focus of this session is on pest management during propagation and includes examples of what can be done with a focus of BioControl starting as a first line of defense during early stages of propagation.

Dr. Andrew Loyd, *A Global Economy: A Major Driver of Emergent Diseases in the U.S*

This presentation will highlight diseases of woody plants that are emerging in the eastern United States and have been introduced to the United States and/or are becoming more prevalent due to a change in weather patterns. The discussion will include diseases such as beech leaf disease, boxwood blight, pear trellis rust, and sudden oak death, all significantly impacting the nursery and landscape industry, and all the result of non-intentional introductions via trade.

Breakout Session II

Dr. Steve Frank, *The Native Plant Paradox: The Costs and Benefits of Using Native Trees in Urban Landscapes*

The right plant in the right place is a basic tenant of IPM and sustainable urban landscapes. Many people assume natives are the “right plants” for all places. Our research shows that native trees can support more pests than exotic trees, a problem that gets worse at the most urban sites. Many exotic trees also support as much insect biodiversity as natives. Thus, exotic trees may be the “right plants” for highly urban pest prone places.

Dr. Stanton Gill, *Greenhouse Pest Control Decisions*

Over the last year the University of Maryland and University of Delaware has evaluated several new insecticides for whitefly, thrips and citrus mealybug. This presentation looks at the results of recent trials, sharing information about several greenhouse operations adopting biological controls and their successes and failures. The results of a trial using systemic insecticides combined with biological control releases in cut flower crops will be shared as well. The purpose of the presentation is to allow participants to make informed decisions in adopting biological control.

Dr. Lindsey Thiessen, *Diseases of Industrial Hemp and Their Management*

Industrial hemp production can be difficult in light of the many diseases that affect this crop. Accurate identification of common problems is the first step to managing disease and generating a profitable crop. Management strategies are limited but are centered on cultural practices that limit growth of common fungal and bacterial pathogens.

Program Descriptions 2019, continued

Breakout Session III

Dr. Stanton Gill, *Dealing with the Rising Problem of Scale, Both Armored and Soft*

Learn what field research projects are showing us is the best materials and methods to deal with major soft and armored scale in the nursery and landscape. Results of trials in Maryland and Delaware by the University of Maryland and University of Delaware Extension will help you making better decisions on control methods.

Thom Green/Margot Wallston, *Renewed Hope for Hemlocks: Update on IPM Strategies Being Implemented Locally and Regionally to Control Hemlock Woolly Adelgid*

The Hemlock Restoration Initiative, a program of nonprofit WNC Communities, was started in 2014 with a mission to ensure that eastern and Carolina hemlocks can resist the deadly hemlock woolly adelgid and survive to maturity on North Carolina's public and private lands. After providing the context necessary to understand the ecological significance of hemlock trees in our region and the impact of the invasive hemlock woolly adelgid, presenters will give an update on the integrated pest management strategies being implemented locally and regionally to control hemlock woolly adelgid. The discussion will focus on recent developments in the biological, chemical and cultural control of HWA and how they might influence management decisions at the individual homeowner and larger landscape-level scales. Outcomes of local and regional programs will be discussed as will measures being implemented and observed in other states coping with HWA. Participants will leave with practical information on how to assess hemlock health, monitor for the presence of HWA and associated biological control agents, and make decisions regarding the selection of the best hemlock management option for specific situations.

Dr. Carol Glenister, *Working the Wild Side of Biocontrols: Growing Your Own Beneficials*

Growing your own beneficials ensures that you have a standing army for pest control and saves you money. The presenter will share techniques used for control of aphids, whiteflies, thrips and spider mites.

Closing Session

Nancy Adamson, *Plantings to Support Pollination and Pest Management*

Learn about native grasses, wildflowers, shrubs and trees that attract pollinators, predators and parasitoids to improve production and reduce pesticide use. The program will also highlight cover crops, annuals and herbs that support diversity for wildlife and help prevent pest outbreaks.