

2024 Ohio Tree Care Conference Program

Roots of a Resilient Tomorrow

Tuesday, February 6

Certified Arborist Review

8:15 am to 9:30 am

Tree Biology and Anatomy

Presenter: Bill Fountain, Retired Professor Emeritus

Brief overview of tree biology and anatomy for those preparing for the certified arborist exam or for arborists who need a refresher.

ISA 1.25 A,U,M,CS,AS,BCMA-s;Pesticide 0.5 6A

9:30 am - 10:15 am

Tree Diagnostics and Disorders

Presenter: Bill Fountain, Retired Professor Emeritus

Brief overview of how to diagnose tree disorders and problems for those preparing for the certified arborist exam or those arborists wishing to refresh their skills.

ISA .75 A,M, BCMA-p; 6A

10:15 am - 11:15 am

Tree Identification

Presenter: Brady Holko, Davey Tree Expert Co.

Learn about the different parts of a tree and how they can be used to make a proper identification.

ISA 1.0 A,U,M,CS,AS,BCMA-s

11:15 am - 12:00 pm

Plant Health Care

Presenter: Kodi Riedel, Davey Tree Expert Co.

In this session, we will review the concepts of plant health care (PHC), integrated pest management (IMP), and the appropriate response process (ARP). We will review the key components of a monitoring program and the importance of preventative strategies in maintaining a healthy landscape.

ISA .75 A,M,BCMA-p; Pesticide 0.5 6A

12:30 pm - 1:15 pm

Pruning

Presenter: Geoff Kempter, Asplundh

An overview of the importance of understanding both the proper techniques and how the tree responds to pruning.

ISA .75 A,U,M,AS,CS,BCMA-p

1:15 pm - 2:00 pm

Tree Installation and Establishment

Presenter: Brian Goodall, Bartlett Tree Experts

Brief of best management practice for tree installation and establishment. This presentation will cover recommendation on planting techniques, survival changes and prevention of longer-term issues, identifying types of planting stocks, understanding proper planting based on species of trees, and identifying early tree care of newly planted trees.

ISA .75 A,U,M,BCMA-p

2:00 pm - 3:00 pm

Trees & Construction

Presenter: Brian Goodall, Bartlett Tree Experts

Brief overview of best management practices for working around trees during construction, such as how trees can be injured or killed as the direct or indirect result of construction damage. This session will also provide participants with a better understanding of the limitations for treatment of trees that have been damaged by construction.

ISA 1.0 A,U,M,BCMA-m

3:15 pm - 3:45 pm

Tree Risk Assessment

Presenter: Joseph Moeglin, ODNR Division of Forestry

Brief overview of tree risk assessment as it relates to trees in the urban forestry environment.

ISA .5 A,U,M,AP,CP,BCMA-m; CTSP .75

3:45 pm - 4:15 pm

Tree Selection

Presenter: Brian Kralovic, LaRoche Tree Care

Overview of tree and site characteristics that influence a successful planting.

ISA .5 A,U,M,BCMA-s

4:15 pm - 5:00 pm

Tree Fertilization & Nutrition

Presenter: Brian Kralovic, LaRoche Tree Care

Overview of the relationship between tree nutrition and fertilization.

ISA .75 A,M,BCMA-p

Research

9:00am -10:00am

Climate Change, What to Plant

Presenter: Nathan Ames, Ames Arboreal Group

In this session, Nate will give his “soapbox” views on the importance of proper planting including the recently adopted Ohio Proper Planting Specifications. Bring your observed successes and disasters for an open forum discussion.

ISA 1.0 A,M,BCMA-s

10:00 am - 11:30 am

New and Useful Arboriculture Research

Presenter: Brian Kralovic, LaRoche Tree Care, and Zack Shier, Joseph Tree Service

This presentation is going to review and summarize some of the more recent research that positively affects tree care practitioners and arborists. Topics will include climbing, pruning, equipment, plant healthcare, and technology. Brian and Zack will review both individual research topics and studies, as well as summarize groups of studies and their practical uses. Attendees will gain a better understanding of research and how it affects our industry both in the scientific and practical manners.

ISA 1.5 A,M,BCMA-m

12:30 pm - 1:30 pm

Studies Evaluating the Role of Endophytes in Tree Disease Resilience

Presenter: Glynn Percival, Bartlett Tree Experts

Biocontrol of pests and diseases relies heavily on the introduction of a predator/prey situation. The importance of endophytes, i.e. bacteria and fungi, that live within a tree without causing any disease symptoms is greatly unappreciated in terms of enhancing tree resilience against pest and disease ingress. The aim of this presentation is to provide an overview highlighting the benefits of endophytes, especially their potential as bio-control agents, based on peer review publications and ongoing research at the Bartlett Tree Research Laboratory.

ISA 1.0 A,M,BCMA-s; Pesticide 1.0 6A

General Session

2:00 pm - 4:00 pm

Box Tree Moth, Spotted Lanternfly, and the invasive insects of Ohio

Presenter: Ashley Kulhanek, Ohio State University Extension

It can feel like Ohio is at the crossroad of every invasive insect introduction. Some invasive species we have had to live with, others pose threats to forests, landscapes, and nursery businesses. Hear the latest about the newest introductions and updates on the ongoing invasions.

ISA 2.0 A,U,M,AS,CS,BCMA-s; Pesticide 1.0 Cat. 4A, 6A

Wednesday, February 7

Certified Arborist Review Continued

8:00 am - 8:45 am

Urban Forestry

Presenter: Phil Olsen, College of Wooster

Brief overview of urban forestry best management practices as they relate to managing and caring for vegetation in the urban and community forest.

ISA .75 A,M,BCMA-m

8:45 am - 10:00 am

Tree Soil Science & Water Management

Presenter: Phil Olsen, College of Wooster

An explanation on how soil texture and structure affect porosity and water movement. Participants will learn about the relationship among soil moisture, absorption of essential elements, and root growth. Participants will also learn about water management and how water influences plant growth and health, identification of soil characteristic and how they affect aeration, infiltration, and water holding capacity.

ISA 1.25 A,M,BCMA-m

10:15 am - 11:00 am

Tree Climbing Safety & Tree Work

Presenter: Roy Montan, Davey Tree Expert Co.

A brief overview of climbing and working in trees by using the industry's best management practices, ANSI, and OSHA guidelines.

ISA .75 A,U,M,AS,CS,BCMA-p; CTSP .75

11:00 am to 12:00 pm

Tree Worker Safety & First Aid

Presenter: Roy Montan, Davey Tree Expert Co.

A brief overview of tree worker safety utilizing the arboriculture industry standard, best management practices, ANSI guidelines, and OSHA standards.

ISA 1.0 A,U,M,AS,CS,BCMA-m; CTSP 1.0

Keynote

9:00 am - 10:30 am

Weird Things Bugs Do

Presenter: Ashley Kulhanek, Ohio State University Extension

We may learn the pests for our job, but do we take time to appreciate the great diversity of insects and their roles in our landscape ecosystem? As interest in protecting pollinators and landscaping for beneficial insects grows, it is helpful for professionals to become familiar with the many roles insects play – good, "bad", or magnificently indifferent. Learn to enjoy some of the weird things bugs do that may help you and your clients understand the bugs in your backyard.

ISA 1.5 A,M,BCMA-s; Pesticide 1.5 Cat. 6A

Climbers' Corner

11:00 am - 12:00 pm

Anchor Points

Presenter: Anthony Tresselt & Jack Montgomery, Keystone Training Solutions

A look at anchor system considerations beyond just strength. By taking a comprehensive approach we can determine the best safest fit for purpose anchors for climbing and rigging.

ISA 1.0 A,U,M,AS,CS,BCMA-p; CTSP 1.0

1:30 pm - 2:30 pm

Principles of Leadership

Presenter: Anthony Tresselt & Jack Montgomery, Keystone Training Solutions

Leadership is key to safety and efficiency. We will look at some stoic leadership principles and how they can be applied to individuals as well as crews.

ISA 1.0 A,U,M,AS,CS,BCMA-m; CTSP 1.0

2:30 pm - 3:30 pm

Aerial Rescue

Presenter: Anthony Tresselt & Jack Montgomery, Keystone Training Solutions

Together, we will work through an interactive rescue scenario. As the situation develops, we will explore options, decisions, and consequences of aerial rescue.

ISA 1.0 A,U,M,AS,CS,BCMA-m; CTSP 1.0

4:00 pm - 5:00 pm

Climbing Tools & Techniques

Presenter: Anthony Tresselt & Jack Montgomery, Keystone Training Solutions

The best tools are the ones that serve many purposes. We will take a look at tools and techniques that can be used in a number of ways to increase comfort, efficiency, and safety.

ISA 1.0 A,U,M,AS,CS,BCMA-p; CTSP 1.0

Commercial

1:30 pm - 2:30 pm

Climate Change, Urban Forests, and Arboriculture: Impacts & Solutions

Presenter: Daniel Herms, PhD, Davey Tree Expert Co.

Earth has warmed sharply in recent decades with impacts on tree growth and stress, pest pressure, urban heat, drought and wildfire, storm water runoff, and worker safety that are readily apparent. This presentation will review the intensifying impacts of climate change, projected impacts of ongoing warming, potential for trees to mitigate the impacts of climate change, and selecting trees for future climates.

ISA 1.0 A,M,BCMA-s

2:30 pm - 3:30 pm

Life's a Beech!

Presenter: Brady Holko, Davey Tree Expert Co.

Beech leaf disease is causing a significant decline of beech trees in the northeastern United States and Canada. In this talk, Brady will be discussing the biology of the disease as well as ongoing research into finding a management strategy.

ISA 1.0 A,U,M,AS,CS,BCMA-s; Pesticide 0.5 Cat. 4A, 6A

4:00 pm - 5:00 pm

The Migratory Bird Treaty Act

Presenter: Ashley Kloes, Davey Tree Expert Co.

Trees are just one part of the ecosystem. They interact with everything else around them. Explore the relationship between trees and birds, and how birds affect our work as arborists. Learn about the laws protecting our birds, including the Migratory Bird Treaty Act and how to use it at work and at home. Gain a deeper appreciation for birds and how we can be better stewards of our environment.

ISA 1.0 A,U,M,AS,CS,BCMA-s

Commercial/Municipal

11:00 am - 12:00pm

Phenology for Insect Predictions

Presenter: Ashley Kulhanek, Ohio State University Extension

Working in diverse landscapes means managing diverse insects – both good and pest. From the beneficial to the pesky, or just the misunderstood, we can use plant phenology and growing degree-days to help plan and predict insects that may need monitoring, management, or protection!

ISA 1.0 A,M,BCMA-s; Pesticide 1.0 Cat. CORE

Municipal

1:30 pm - 2:30 pm

Increasing Climate Resiliency in Your Community with Adaptable Trees and Green Infrastructure

Presenter: David Gamstetter, Davey Tree Expert Co.

The United States Global Change Research Program projects major climate changes for many regions of the United States. These projections include increasing temperatures and extreme rainfall events with more frequent periods of drought during the summer months. As the climate changes, the habitat for tree species may become unsuitable for survival. Species that require cool moist conditions will be challenged by increasing temperatures and warming, drier summers.

Some tree species are more adaptable than others. When we plant trees we must consider the current planting site conditions, changing temperature and moisture availability, and that the trees we are planting today have a potential to live in a future where their ideal growing conditions are no longer recognizable. With potentially more severe rainfall events, green infrastructure stormwater control measures can be a sustainable solution to managing water in the landscape while providing pollution abatement and environmental benefits.

This presentation will cover selecting climate resilient tree species and creating green infrastructure to manage increased stormwater runoff.

ISA 1.0 A,M,BCMA-m

2:30 pm - 3:30 pm

Planning for Ohio's Tree Canopy with Assessments

Presenter: Michael Galvin, SavATree Consulting Group

In this session, we will talk about the role of tree canopy assessment in long-term sustainable canopy planning using examples from two recent canopy assessment projects in Hamilton and Franklin counties.

ISA 1.0 A,M,BCMA-m

4:00 pm - 5:00 pm

Challenges Above and Below Ground in the Urban Landscape

Presenter: Shawn Daugherty, City of Worthington, and Julie Predieri, City of Gahanna

Shawn will discuss how dealing with disturbed and poor soils in the urban landscape can present unique challenges to municipal planners, landscapers, and homeowners. Tree planting cannot always be done in the most favorable location and sometimes a site can work against you. The decision of choosing the right tree for a challenging location can directly lead to success or failure.

Julie will discuss the challenges faced when running an urban forestry program goes on and on. Sometimes, managers have to get creative when resources run short, and other times, planning is required to ask for the resources that are truly needed. In the last 5 years, Gahanna has changed from a city on the brink of losing its forestry program to a team with 5 new full-time crew members. Program growth is a wonderful thing, but the challenges that come with growth are often difficult. Finding the best way forward requires flexibility, creativity, patience, and lots of help from the forestry community.

ISA 1.0 A,M,BCMA-p

Utility

11:00 am - 12:00 pm

Climate Ready IVM Programs in Transmission ROWs: Habitat value and EROI

Presenter: Anand Persad, PhD, BCE, ACRT

In many instances, utility Right's of Row (ROW) may offer green belts of continuous tracts of land that if properly managed can drive benefits associated with greenspaces, including carbon sequestration, erosion control, contribute to biodiversity, and provide habitat value. This study presents data and the development of novel tools to evaluate habitats and explore the inter-relationships of vegetation cover types and the invertebrates and vertebrates associated with integrated vegetation management (IVM) practices. The data will assist in habitat benefit assessments especially over extensive areas in gains to the physical attributes of the site in addition to tracking the dynamic biological assets. Satellite imagery and other artificial intelligence add value to these assessments which provide utilities with trackable data sets useful for reporting on environmental and social goals (ESG). Case studies will be presented to illustrate successes in adapting an ecological return of investment (EROI), especially important as we prepare climate ready vegetation management programs in our transmission ROW's.

ISA 1.0 A,U,M,BCMA-m

1:30 pm - 2:30 pm

Managing Tree Failure Risk from Outside of the Electric Distribution Corridor

Presenter: Seth Blair, FirstEnergy

Tree failures from outside of electric distribution corridors are often a main cause of outages at any utility, thus service and reliability are significantly impacted. This session will provide an overview of FirstEnergy's program for managing and prioritizing tree outage risk from outside of the corridor. Additional topics will include a review of outage trends and contributing factors of tree failure from more than 11,000 outage investigations conducted by the Ohio forestry staff at FirstEnergy.

ISA 1.0 A,U,M,BCMA-m; CTSP 1.0

2:30 pm - 3:30 pm

Utility Vegetation Management

Presenter: Geoff Kempter, Asplundh

Utility vegetation management (UVM) is a critical service that requires professional expertise. However, regulators and industry executives often consider UVM to be a low-skilled service. Technology, climate change, and social trends are further affecting how VM is specified and performed. This presentation looks at industry trends, standards and best practices, available resources and training, and describes how the next generation of UVM practitioners will deliver these services in the future.

ISA 1.0 A,U,M,BCMA-p; Pesticide 1.0 Cat. 5

4:00 pm - 5:00 pm

IVM Strategies & Benefits

Presenter: Richard Hendler, ACRT

Integrated Vegetation Management (IVM) is a process and an often overused term. Basics and strategies will be discussed to integrate chemical control with clearing and pruning options to improve VM programs on distribution and transmission. When site-specific prescription control is warranted, we must balance crew qualifications, timing, economics, brush density, equipment, the public, and the urban and rural landscape to get the work done. Integration means incorporating what we learn each year to progress and maximize IVM benefits. VM programs should see improvement and progress each year as they evolve.

ISA 1.0 A,U,M,BCMA-p Pesticide 1.0 Cat. 5

Thursday, February 8

Breakfast Speaker

9:00 am - 9:30 am

Soils & Climate Change

Presenter: Brian Slater, The Ohio State University

This presentation will discuss the carbon cycle in the soil environment and the causes and effects of climate change in the geosphere, pedosphere, biosphere, hydrosphere, and atmosphere, specifically likely scenarios in Ohio.

ISA .5 A,M,BCMA-s

Commercial

10:00 am - 11:00 am

Influence of Soil Amendments

Presenter: Glynn Percival, PhD, Bartlett Tree Experts

The importance of applying the correct amendment into the soil at the time of planting can have a marked impact on tree transplant survival and independence. For this reason several products have been aggressively marketed towards the arboriculture industry to include compost teas, mycorrhiza, and biostimulants. In this session, Dr. Percival will discuss the influence of these as well as other soil amendments (sugars, biochar, fertilizers, mulches) on enhancing post planting survival and resilience to pest and disease attack.

ISA 1.0 A,M,BCMA-s

Climbers' Corner

10:00 am - 11:00 am

Aerial Chainsaw Use

Presenter: Anthony Tresselt & Jack Montgomery, Keystone Training Solutions

Chainsaws are ubiquitous. Arborists use them daily both on the ground and aloft. As the environment changes from feet planted firmly on the ground to being tied into a tree or a lift, the hazards and the techniques of chainsaw use change. We will look at some sound principles of aerial chainsaw use and how to maximize the tool.

ISA 1.0 A,U,M,AS,CS,BCMA-p; CTSP 1.0

11:00 am - 12:00 pm

Rigging Systems- What do Use & Not to Use

Presenter: Anthony Tresselt & Jack Montgomery, Keystone Training Solutions

Rigging, from complex to basic, can offer a high return on investment of time and energy if applied correctly. In this session, we will take a look at various rigging systems and when they are and are not appropriate for the work plan.

ISA 1.0 A,U,M,AS,CP,BCMA-p; CTSP 1.0

Municipal

10:00 am - 11:00 am

Trees, Moths, and Biodiversity

Presenter: Jim McCormac, Jim McCormac Photography

Ohio's diverse community of woody plants – trees and shrubs – grows a remarkable diversity of moths, at least several thousand species. Unlike their better-known counterparts the butterflies, moths are largely out of sight and out of mind. Yet moth caterpillars are probably the major food source for most of our songbirds, moths are the number one prey for bats, and moth caterpillar predation of plants stimulates long-term botanical chemical warfare that benefits all humans. This will be a richly illustrated look at a massive and amazing group of insects largely grown on our trees.

ISA 1.0 A,M,BCMA-s

Utility

10:00 am - 11:00 am

Trees Under Tension

Presenter: Timothy Walsh, Davey Tree Expert Co.

This session will take a look at the hazards and mitigation techniques associated with storm restoration, specifically when trees have fallen on conductors. Tim will address compliance, science, and best practices when dealing with this common hazard.

ISA 1.0 A,U,M,AS,CS,BCMA-p; CTSP 1.0

All Tracks Combined

11:00 am - 12:00 pm

Ticks In Ohio

Presenter: Leeanne Garrett, Ohio Department of Health

In this presentation, Leanne will discuss the different tick species and tick-borne diseases in Ohio using data from recent surveillance activities. She will also review ways to protect yourself against tick bites.

ISA 1.0 A,U,M,AS,CS,BCMA-s Pesticide 1.0 Cat. 10D

1:00 pm - 3:00 pm

Tree Amigos: Trees, Pests, Pathogens, Problems, and Perspectives

Presenter: Joe Boggs, OSU Extension; Jim Chatfield, Professor Emeritus; and Erik Draper, OSU Extension

Back by popular demand, the *Tree Amigos* will discuss, sometimes in contrapuntal style, tree biology and selection, pests, pathogens, and problems; as well as arboricultural issues of current importance. Audience participation is commanded.

ISA 2.0 A,M; 1.0 BCMA-s, BCMA-p Pesticide 1.0 Cat. 4A, 6A

CEU Legend

ISA A–Certified Arborist; M–Municipal Specialist, U–Utility Specialist, CS–Climber Specialist, AS–Aerial Lift Specialist, BCMA-s (Science), BCMA-p (Practice), BCMA-m (Management)

Ohio Commercial Pesticide Recertification CORE, 4A, 5, 6A, 10D

Certified Treecare Safety Professional CTSP

OCNT 1 credit per class attended/credits are self-reported

SAF 2/6 Cert Arbor = 8; 2/7 Cert Arbor = 4; 2/6 Research = 3.5; 2/6 General = 2; 2/7 Keynote = 1.5; 2/7 Climb = 4 Cat 2; 2/7 Comm, Muni, Util all = 4; 2/8 Breakfast = .5; 2/8 Climb = 2; 2/8 Comm, Muni, Util = 1; 2/8 Ticks = 1 Cat 2; 2/8 Amigos = 2

Speaker Bios

Nathan Ames became an ISA Certified Arborist at the age of 19. He is the owner of Ames Arboreal Group in Columbus and has been a tree care professional for 27 years. When he started his company, he defined the company motto as a *different approach to tree care*. To him, this means re-thinking and improving every aspect of the tree industry's standards, from client relations to operational safety, to the environmental impact of the work.

Seth Blair is a forestry specialist in vegetation program management at FirstEnergy. His role specializes in operational training development, delivery, and oversight. He holds a bachelor's degree in Forest Resource Management from West Virginia University and a master's degree in Environmental Horticulture from the University of Florida. Seth is an ISA Certified Arborist, Utility Specialist, and is TRAQ qualified. He also serves on the on the Utility Arborist Association research committee.

Jim Chatfield is a horticulture educator and professor emeritus at The Ohio State University. He enjoys community tree evaluation, landscape horticulture, plant selection, plant diagnostics, plant pathology, and practical botany.

Shawn Daugherty is a lifelong central Ohio resident and has worked for the City of Worthington for 34 years. An award-winning artist, Shawn attended the Columbus College of Art and Design where he studied industrial design. He is an accomplished fabricator in metal, wood, and carbon fiber. Shawn uses his creativity and design talents as parks supervisor/city arborist when he determines tree selection, urban planning, park design, and horticultural concepts.

Erik Draper is an assistant professor for OSU Extension. His focus is on phytoforensics and plant problem diagnostics, plant selection, commercial horticulture, and plant pathology.

William (Bill) Fountain, PhD, professor emeritus, served the University of Kentucky for over four decades. Bill is an ISA Board Certified Master Arborist, Registered Consulting Arborist, TRAQ instructor, and Tree and Plant Appraisal instructor. He has served on the ISA and Kentucky Arborists Association's Board of Directors and numerous committees.

Michael Galvin is a senior level consulting arborist. He has overseen the growth of the SavATree Consulting Group from a New York-area start up effort to a national practice that has produced projects throughout the United States. He is a past president of the American Society of Consulting Arborists, a voting member of the ANSI Accredited Standards Committee A300, and served on the Chesapeake Bay Urban Tree Canopy Expert Panel. For over a decade he served as supervisor of urban and community forestry for Maryland Department of Natural Resources, overseeing statewide administration of the Forest Conservation Act, Reforestation Law, Roadside Tree Law, Licensed Tree Expert Law, and Urban and Community Forestry Law.

David Gamstetter was the natural resource manager/city forester for the city of Cincinnati. He retired in 2019 and began working at the Davey Resource Group where he works as a business developer specializing in green infrastructure. Dave is an ISA Certified Arborist, holds a National Green Infrastructure Certification, and in 2015 was inducted into the Ohio Department of Natural Resources Forest of Honor.

Leeanne Garrett is a public health entomologist at the Ohio Department of Health. She has been working in the zoonotic disease program since 2015 and is the coordinator for mosquito and tick surveillance programs throughout Ohio. Leeanne earned her master's degree in Veterinary Public Health from The Ohio State University and she has served on the board of the Ohio Mosquito and Vector Control Association.

Brian Goodall is an arborist and educator from central Ohio. He is a husband to an amazing wife and a father of three crazy kids. Brian is currently a regional safety manager for Bartlett Tree Experts. He previously worked in urban forestry, commercial tree care, natural resources, and in education. Brian is passionate about the outdoors and teaching people to live and work safely with trees. He holds multiple credentials including ISA Board Certified Master Arborist, ASCA Registered Consulting Arborist, and TCIA Certified Treecare Safety Professional. He is also a licensed pesticide applicator through the Ohio Department of Agriculture.

Richard Hendler is the integrated vegetation management specialist for ACRT Services. With his wide-ranging right-of-way knowledge and IVM expertise, along with his deep industry involvement and leadership, he has helped bring new

opportunities and successes to utilities throughout the country. He is a past president of the Utility Arborist Association, and past president of both the Oklahoma and Louisiana vegetation management associations. Richard served as the inaugural president of the Texas Vegetation Management Association, where he was also a recipient of the organization's Lifetime Achievement Award. He is a recipient of the UAA President's Award and is an ISA Certified Arborist and Utility Specialist. Additionally, he holds a Bachelor of Science in Biology from Tulane University and a Master of Science in Agronomy and Crop Science from Texas A&M University.

Daniel Herms, PhD, is vice president of research and development for Davey Tree Expert Co. Prior to joining Davey, he was a professor of entomology at The Ohio State University. His research focuses on the interactions of trees with insects, soils, and climate. He received awards for both authorship and research from the International Society of Arboriculture.

Brady Holko graduated from Kent State University with a Bachelor of Science degree in Botany and is a current graduate student in the Master in Plant Health Management program at The Ohio State University. She currently works as a botanist and laboratory technician for the Davey Institute Diagnostic Laboratory. Apart from lab duties, Brady conducts research on Beech leaf disease. Brady enjoys writing educational articles for the Davey Institute and often lectures on plant identification as well as invasive plants, pests, and diseases.

Geoff Kempter has 34 years of experience in utility vegetation management. He is author of the ISA Best Management Practices Guide for Utility Pruning, and co-author of Utility Arboriculture, the Utility Specialist Study Guide. He is a past president of the Utility Arborist Association and has served on the ANSI A300 Tree Care Standards Committee, the TREE Fund board, the ISA board, and many other industry boards and committees. He is an instructor for the University of Wisconsin-Stevens Point UVM certificate program and ISA Tree Risk Assessment Qualification. He has presented on a variety of topics at industry events across North America and holds a degree in Natural Resources from the University of Michigan.

Ashley Kloes has a love of all things birds. Birds have been a special part of her life in many ways from caring for her parrots and chickens to feeding the wild birds in her yard. Ashley has a degree in Zoology from Kent State University where she studied birds, other animals, and ecosystems. Because of these things, she loves to spread awareness to the tree communities about how we share our outdoor spaces with so many other creatures. Ashley is the research coordinator for the Davey Tree Expert Co. where she works on various projects on tree diseases, pollinators, and other insects. She is also an ISA Certified Arborist and a certified pesticide applicator through the Ohio Department of Agriculture.

Brian Kralovic (Crawl-low-vick) is a graduate of The Ohio State University with a degree in Landscape Architecture. While in college, he worked on a tree farm learning the do's and don'ts of planting and digging with a focus on tree pruning. After graduation, he worked for several years in landscape design and sales, before accepting a position with the City of St. Clairsville, Ohio, to oversee their parks and urban forest. Currently, he is the director of residential services at LaRoche Tree Service in Bellaire, Ohio. Brian is an ISA Certified Arborist and Municipal Specialist.

He says one of the most beneficial aspects of his previous jobs was being able to buy trees from the tree farm where he worked. It was satisfying to purchase trees that he helped plant and prune and getting to see the results 5-7 years later when he installed the trees and then cared for some of those trees for 14 years before accepting his current position.

Ashley Kulhanek is an extension educator for agriculture and natural resources for OSU Extension and has been in Medina County for the past 10 years. She has a Masters in Entomology from OSU and specializes in insects, phenology, and invasive species. She is a member of the Buckeye Environmental Horticulture Team at OSU and a writer for the Buckeye Yard and Garden Line. She is a self-described bug nerd and crazy cat lady. She loves helping to answer strange bug questions.

Jim McCormac worked for the Ohio Department of Natural Resources for 31 years as a botanist, and later specializing in wildlife diversity projects, especially involving birds. He has authored or co-authored six books, including *Birds of Ohio* (Lone Pine 2004); and *Wild Ohio: The Best of Our Natural Heritage* (Kent State University Press 2009). The latter won the 2010 Ohioana Book award. He is a co-author of the *Ohio Breeding Bird Atlas II* book. His latest book, co-authored with Chelsea Gottfried, is *Gardening for Moths* (Ohio University Press 2023). Jim writes the Nature column for the Columbus Dispatch and regularly publishes a natural history blog. He has written numerous articles in a variety of publications and has delivered hundreds of presentations throughout the eastern United States. He was named 2015 Conservation Communicator of the Year by the Ohio League of Sportsmen. Jim is an avid photographer, shooting a range of natural

history subjects, with hundreds of photos published in various forums. His photography can be sampled at <https://www.jimmccormac.com/>.

Joseph Moeglin is the regional urban forester with the Ohio Department of Natural Resources Division of Forestry in east central Ohio. Joe is an ISA Certified Arborist and has a background in utility forestry and invasive species treatment.

Roy Montan is passionate about safety in the tree care industry. He has inspired thousands of arborists and tree care professionals to make safety a value. Roy has been in the arboriculture industry for over 30 years and served as a safety specialist for the past 18. He holds many titles including Certified Tree Safety Professional, Certified Flagger Trainer, Forklift Operator Trainer, UTV/ATV Operator Trainer, American Red Cross instructor, lead of the Davey First Aid Program, and qualified OSHA course instructor.

Phil Olsen is the campus horticulturist/manager of grounds at the College of Wooster. The private college has an annual enrollment of around 2,000 students and encompasses 240 acres. Phil is an ISA Certified Arborist.

Glynn Percival, PhD, is a senior arboricultural researcher at the Bartlett Tree Research Laboratory based in Charlotte, NC. He is the author of over 100 scientific papers. In addition, Dr. Percival is on the editorial board for Arboriculture and Urban Forestry and Urban Forestry Urban Greening, and is the co-editor of the conference proceedings for Trees, People and Built Environment. Reading University made Dr. Percival an honorary visiting research fellow, citing his valuable contributions within the plant science department and the university. Dr. Percival is also a visiting lecturer at the Kew Royal Botanic Gardens and was awarded the prestigious Arboricultural Association Award for research and education in 2017 and the International Society of Arboriculture L.C. Chadwick Award for research in 2020. Dr. Percival is actively involved in managing urban and rural landscapes for the royal households and Duchy of Cornwall.

Anand Persad, PhD, BCE, is the director of the Research, Science, and Innovation team at ACRT Services and chairs the ISA science and research committee. Additionally, he serves as research committee chairperson for the Utility Arborist Association. Dr. Persad collaborates with a global network of researchers and governments on arboricultural and environmental research including climate resilient urban and utility-based tree programs, biodiversity analyses, invasive species, and tree biomechanics. Dr. Persad has received the ISA L.C. Chadwick Award and the Award of Achievement by the Ohio Chapter ISA. These awards recognize arboricultural research excellence and commitment to industry innovation. He holds a PhD in invertebrate ecology/entomology from the University of the West Indies. His post-doctorate at University of Florida emphasized invasive species and insect molecular genetics.

Julie Predieri is an ISA Certified Arborist with 7 years of experience in municipal forestry and 2 years of experience in ecology. She has been the forestry supervisor/city forester at the City of Gahanna since 2018. Julie is a proud graduate of The Ohio State University and her favorite Ohio native tree is pawpaw.

Kodi Riedel has been in the industry for fifteen years. She attended The Ohio State University for her Master of Plant Health Management. Kodi is currently the Davey Institute Diagnostic Laboratory supervisor. In this position, she leads the diagnostic laboratory support services for the Davey Tree Expert Co. She provides plant problem diagnosis, report writing, lab management, as well as presentations and education about the industry. She is an ISA Certified Arborist and serves as a director on the Ohio Chapter's Board of Directors.

Zack Shier attended The Ohio State University following his time in the U.S. Army where he earned a bachelor's degree in forest ecosystem management. Zack is the plant healthcare manager and a commercial account manager for Joseph Tree in Dublin, OH. Throughout his career, he has earned his ISA BCMA, TRAQ, and Ohio Certified Applicator License. Zack serves as a director on the Ohio Chapter's Board of Directors.

Brian Slater is a professor of soil resources in the School of Environment and Natural Resources at The Ohio State University. His research has focused on digital soil mapping using machine learning techniques and hyperspectral remote sensing, and analysis of effects of regenerative land management practices on soil health and soil carbon dynamics.

Anthony (Tony) Tresselt and Jack Montgomery are long time arborists and students of all things trees and ropes. Tony is an ISA Certified Arborist, arboricultural safety consultant, trainer, and student of arboriculture and tree climbing. He travels across North America helping spread the word of safe, efficient arboriculture. He is a veteran of the United States Army, having served in the first Persian Gulf war. Anthony competed in tree climbing competitions for twelve years. Tony is the owner of Keystone Training Solutions where his professional goal is to get tree workers home safely each night.

Timothy Walsh is the vice president of health and safety for the Davey Tree Expert Co. His education and credentials are centered around both tree care and safety. He is currently working on his doctorate in ergonomics and safety. Tim's

research is focused on the ergonomic efficiencies of different climbing systems. He has a master's degree in ergonomics from the University of Massachusetts-Lowell, as well as a master's and bachelor's in urban forestry from the University of Wisconsin-Stevens Point.

He is a Certified Treecare Safety Professional, an ISA Certified Arborist, and an ISA Certified Tree Worker Climber Specialist. Tim has been a climbing arborist for more than 30 years during which time he has owned a tree care business, worked as a contract climber, and worked with companies around the world in various capacities.

Tim has been involved in industry standard revisions, acting as a voting member of the 2022 revision of the ANSI Z133 and serving as task chair for two groups and has been involved with the Accredited Standards Committee Z133 for several revisions.

An active member of industry organizations, Tim serves on the Utility Arborist Association board of directors as president. He has been the champion for UAA safety committee and has served as the chair of the UAA professional development committee. He is the 2022 recipient of the UAA Will Nutter Silver Shield Award, which is given to someone who influences and promotes positive safety culture within the tree care profession.

Tim was named to the National Occupational Research Agenda Safety Workgroup (NORA), a partnership program to stimulate innovative research and improved workplace practices. Unveiled in 1996, NORA has become a research framework for NIOSH and the CDC.

Tim is a stakeholder/representative for the Ohio Bureau of Workers' Compensation group interested in reducing potential injury/death of Ohio tree service workers. He is also a member of the Tree Care Industry magazine editorial advisory committee.