

2023 Ohio Tree Care Conference Program

Tuesday, February 7

Certified Arborist Review/Arboriculture+

8:15 am - 9:30 am

Tree Biology

Presenter: William Fountain, Ph.D., University of Kentucky

Overview of the biology of trees and terminology.

CEUs: ISA C, U, M, TWc, TWa, BCMA Science

9:45 am - 10:15 am

Plant Health Care

Presenter: Christine Balk, The Davey Tree Expert Company

Overview of terminology, philosophy of plant health care (PHC), and its relationship to/integrated pest management (IPM). Identification of the pest management options and the advantage and limitation of each.

CEUs: ISA C, U, M, BCMA Practice; CORE

10:15 am - 11:15 am

Soil Science & Water Management

Presenter: Brian Goodall, City of Dublin

Overview of terminology, how water influences plant growth/ health, transpiration, and irrigation advantage/ disadvantage, plus other aspects of tree water management.

CEUs: ISA C, M, BCMA Science

11:15 am - 12:00 pm

Tree Nutrition & Fertilization

Presenter: Brian Goodall, City of Dublin

Overview of the relationship between tree nutrition and fertilization.

CEUs: ISA C, M, BCMA Practice

12:30 pm - 1:15 pm

Pruning

Presenter: Ann Bonner, ODNR-Division of Forester

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

CEUs: ISA C, U, M, TWc, TWa, BCMA Practice

1:15 pm - 2:00 pm

Tree Installation & Establishment

Presenter: Ann Bonner, ODNR-Division of Forestry

Overview of the installation and establishment of trees in the urban environment.

CEUs: ISA C, M, BCMA Practice

2:00 pm - 3:15 pm

Tree Identification

Presenter: Phil Olsen, The College of Wooster

Overview of plant nomenclature and morphology.

CEUs: ISA C, M, BCMA Management

3:15 pm - 3:45 pm

Trees & Construction

Presenter: Phil Olsen, The College of Wooster

Overview of terminology, instruction on how trees can be injured or killed as the direct or indirect result of construction, and steps for the preservation of trees during construction.

CEUs: ISA C, U, M, TWc, TWa, BCMA Practice

3:45 pm - 4:15 pm

Tree Support & Lightning Protection

Presenter: Brian Kralovic, LaRoche Tree Service

Overview of how tree support reduces the risk of mechanical failure and how the usage of lightning protection systems can minimize the risk of damage.

CEUs: ISA C, M, BCMA Practice; CTSP

4:15 pm - 5:00 pm

Tree Assessment & Risk Management

Presenter: Brian Kralovic, LaRoche Tree Service

Tree risk assessment is the systematic process to identify, analyze, and evaluate tree risk. Tree risk evaluation is the process of comparing the assessed risk against given risk criteria to determine the significance of the risk.

CEUs: ISA C, U, M, TWc, TWa, BCMA Management; CTSP

General Session

2:00 pm - 4:00 pm

Risky Business, Are my trees safe?

Presenter: Lindsey Purcell, Lp Consulting Group

That is literally a million-dollar question. All levels of government and private enterprise are facing a financial crisis that has an impact on trees in the built environment. The underlying question is what we are willing to risk while maintaining and enjoying the many benefits of our urban trees and how to protect the community. This presentation will provide a survey in recognition of tree risk situations and understanding the strategies available for the decision-making process for mitigation in scenario-based tree inspections as well as examine the TRAQ credential and its application.

CEUs: ISA C, M, BCMA Management

Wednesday, February 8

Certified Arborist Review/Arboriculture+ Continued

8:00 am - 8:30 am

Urban Forestry

Presenter: Brian Kralovic, LaRoche Tree Service

Urban forestry is the planting, maintenance, care, and protection of tree populations in urban settings. This is an overview of the practice and study of the care of trees and other woody plants in the landscape.

CEUs: ISA C, M, BCMA Management; 6A

8:30 am - 9:30 am

Tree Diagnosis & Plant Disorders

Presenter: Kodi Riedel, Davey Institute

Overview of understanding the principles of a systematic approach to the diagnostic process. A review of the various physiological disorders and injuries that can affect trees, and what treatments are appropriate.

CEUs: ISA C, M, BCMA Practice; 6A

9:30 am - 10:30 am

Climbing & Working in Trees

Presenter: Roy Montan, Davey Tree Expert Co.

Overview of the tools used and some chapter definitions from chapter 16 of the ISA Arborist Study Guide.

CEUs: ISA C, U, M, TWc, TWa, BCMA Practice; CTSP

10:30 am - 12:00 pm

Worker Safety and First Aid

Presenter: Roy Montan, Davey Tree Expert Co.

Working in and around trees can present a significant risk of personal injury if safety measures are not followed. Safety must always be the first concern. Safety is more than using special equipment, wearing the appropriate gear, or attending occasional meetings. Safety is an attitude. (ISA, 2010, p. 251) This session is an overview of the study guide chapters on tree worker safety and first aid.

CEUs: ISA C, U, M, TWc, TWa, BCMA Management; CTSP

Keynote Presentation

9:00 am - 10:30 am

Treevangelism: Cultivating Passion and Professionalism in Arboriculture

Presenter: Lindsey Purcell, Lp Consulting Group

By cultivating the passion of our staff and crews in their workforce, organizations and individuals can make performance gains and develop the resilience needed to create a sustainable business. Ethical growth and development translate into safer, effective performance, and provides the ability to treevangelize the importance of our industry inside and outside

the business. This presentation will provide personal insight into cultivating and shepherding students, early-career professionals, and managers toward a successful, satisfying career.

CEUs: ISA C, U, M, TWc, TWa, BCMA Management

Climbers' Corner

11:00 am - 12:00 pm

When in Doubt, Rig it Out

Presenter: Zach Richards, LaRoche Tree Service

An interactive discussion on the benefits of rigging, why an arborist chooses to rig, or not to rig, and the progression of rigging techniques in the industry from natural crotch rigging to modern-day blocks and rings.

CEUs: ISA C, U, M, TWc, TWa, BCMA Practice; CTSP

1:30 pm - 2:30 pm

Advanced Rigging

Presenter: Zach Richards, LaRoche Tree Service

An interactive discussion of advanced rigging techniques. Includes explanations and demonstrations of The Hobbs H2 Lowering device, the Good Rigging Control System (GRCS), and the FTC Transformer.

CEUs: ISA C, U, M, TWc, TWa, BCMA Practice; CTSP

2:30 pm - 3:30 pm

Crane Game

Presenter: Zach Richards, LaRoche Tree Service

With the growing trend in the industry for crane-assisted removals, in this session, we will discuss the why's and hows of crane work, and share detailed videos of crane removals performed by a climber.

CEUs: ISA C, U, M, TWc, TWa, BCMA Practice; CTSP

4:00 pm - 5:00 pm

Aerial Rescue

Presenter: Zach Richards, LaRoche Tree Service

Every tree crew should have a plan, training, and dedicated equipment for performing an aerial rescue in case of an injured climber. This interactive discussion and climbing demonstration will focus on those requirements for an aerial rescue.

CEUs: ISA C, U, M, TWc, TWa, BCMA Practice; CTSP

Commercial

11:00 am - 12:00 pm

Pruning for Performance and Prevention

Presenter: Lindsey Purcell, Lp Consulting Group

How do I remedy poor branching structure? What are my options with these co-dominant stems? Corrective pruning has many implications which include tree structure, health, response to damage, and practice. Pruning to improve performance and preventing failure should be a major consideration for every arborist. This session will provide details on pruning objectives to help arborists determine the best strategies for promoting sustainable growth consistent with current standards.

CEUs: ISA C, U, M, TWc, TWa, BCMA Practice

1:30 pm - 2:30 pm

Trees and Infrastructure

Presenter: Jason Knowles, Knowles Municipal Forestry

Municipal trees are often overlooked during major construction projects. The replacement of concrete, asphalt, and pipe should not preclude the preservation of urban tree canopy. Trees are an important part of a community's infrastructure and should be managed professionally and proactively.

CEUs: ISA C, M, BCMA Management

2:30 pm - 3:30 pm

A Cultivation of Arboriculture

Presenter: William Fountain, Ph.D., University of Kentucky-Retired

A look into the next generation of arboricultural professionals.

CEUs: ISA C, M, BCMA Management

4:00 pm - 5:00 pm

Where Are We and How Did We Get Here?

Presenters: Jennifer Kipp, City of Cleveland; Jennifer Milbrandt, City of Strongsville; Stephanie Miller, Ohio Department of Natural Resources; and Kodi Riedel, The Davey Tree Institute

A panel of industry women professionals from various sectors – municipal, commercial, and utility – discuss how, when, and where they have emerged in their respective positions.

CEUs: ISA C, M, BCMA Management

Municipal

11:00 am - 12:00 pm

Sustainable Seed Collection and Tree Cultivation for Future Reforestation

Presenter: Shana Byrd, Dawes Arboretum

Have you ever had a challenge finding the right native plant material you needed for your tree planting or habitat restoration project? Public land managers, urban foresters, and park officials have often found innovative solutions to this complex problem, which includes sourcing plant material from unknown provenance or out-of-state nurseries. While most of our Ohio trees have wide ecological ranges, selecting locally adapted and resilient nursery stock can help ensure healthier trees and long-term project success. Seed-grown trees sourced from wild populations are inherently more adaptable because they provide greater genetic diversity than trees that are vegetatively propagated or grafted onto rootstock. As a means to acquire high-quality seeds and trees, The Dawes Arboretum developed a new native plant conservation strategy to increase biodiversity in our plant collections and restoration plantings. This is achieved through seed expeditions to regions of southern Ohio and beyond, where the climate is more likely to reflect the conditions of our future ecoregion. The outcomes of this forest restoration research are monitored annually and may ultimately help natural resource managers make more informed decisions. The goal of this research is to explore the most effective techniques for achieving robust tree plantings that are well-adapted to survive the more extreme weather fluctuations we expect to see well into the future.

CEUs: ISA C, M, BCMA Management

1:30 pm - 2:30 pm

Investing in Columbus' Trees: Implementation Progress of Columbus' Urban Forestry Master Plan

Presenter: Rosalie Hendon, City of Columbus Recreation & Parks

Columbus' Urban Forestry Master Plan (UFMP) is the first citywide, strategic plan to invest long-term in Columbus' trees. Over the next decades, the UFMP will guide the entire Columbus community to prioritize, preserve, and grow our tree canopy. Approved unanimously by city leaders in April 2021, the UFMP is now a year into implementation. Rosalie Hendon, UFMP project lead will share the progress so far, including increased capital funding, expanded staffing, updated city and regional tree data, and stronger tree codes.

CEUs: ISA C, M, BCMA Management

2:30 pm - 3:30 pm

The Fate of White Fringetree and Other Alternate Hosts in the Aftermath of EAB

Presenter: Don Cipollini, Ph.D., Wright State University

Dr. Cipollini's laboratory work generally focuses on the chemical ecology of plant responses to the environment, with a focus on induced plant responses to herbivores and pathogens and the chemical ecology of invasive plants, insects, and microbes. One important theme is the influence of environmental and genetic factors on the expression, costs, and benefits of plant resistance traits, and on subsequent outcomes of the interaction of plants with their biotic and abiotic environment. In this presentation, he will focus on his research related to the white fringetree and other alternate hosts in the aftermath of the Emerald Ash Borer.

CEUs: ISA C, M, BCMA Science

4:00 pm - 5:00 pm

Disease Research of Ohio Trees

Presenter: Enrico Bonello, Ph.D., The Ohio State University

Dr. Bonello's research interests range from understanding the molecular mechanisms of tree-pathogen interactions to ways to harness such knowledge to improve forest health management. He has conducted fundamental research to try and elucidate basic mechanisms of resistance, the phenomenon known as systemic induced resistance (SIR) in trees against pathogens and insects, and cross-induction effects between fungal pathogens and insects mediated by the host tree. In this session, he will provide a look into disease research specifically found on Ohio trees.

CEUs: ISA C, M, BCMA Science; 4A

Utility

11:00 am - 12:00 pm

The Language of Safety

Presenter: Keith Pancake, ACRT

Our industry is wrought with recognized and hidden hazards. When speaking about these hazards, the words, and phrases that we use matter. This is also true when discussing leading and lagging indicators, such as near misses, audit results, and root cause analysis. How we communicate with employees makes a difference in whether they listen or hear. One of the ways to gauge the maturity level of a culture of safety is in the language that we use. This program will explore some of the words and phrases that we use and alternatives to help get the message across.

CEUs: ISA C, U, M, TWc, TWa, BCMA Management; CTSP

1:30 pm - 2:30 pm

Fully Integrated Vegetation Management Programs

Presenter: Richard Hendler, ACRT

The encompassing term integrated vegetation management (IVM) is used to describe the complexity of managing narrow corridors of land which we call rights-of-way. IVM in its fullest sense can restore ecosystems, promote pollinator forage, establish early successional plant communities, improve wildlife habitat, and control invasive plants while supporting the reliable delivery of energy. In this session, ACRT Services IVM Specialist Rich Hendler will discuss current IVM practices and consider the need to change our vernacular from controlling undesirables and completing vegetation maintenance commitments to ecological benefits.

CEUs: ISA C, U, M, BCMA Management; 5

2:30 pm - 3:30 pm

New and Emerging Technology in UVM

Presenter: Colby Tisdale, Arbormetrics

Technology has come a long way over the past few decades. In fact, this increasingly competitive landscape within UVM has created an abundance of choices for utility vegetation managers looking to solve issues and challenges in their vegetation management programs. Technology promises resource optimization, risk mitigation, cost reductions, safety improvements, and faster analytics for decision-making, and some even take it a step further by removing human intervention from the process altogether. This presentation looks at some of the existing and emerging technologies that are available for utility vegetation management.

CEUs: ISA C, U, M, BCMA Management

4:00 pm - 5:00 pm

Herbicide Applications to Reestablish a Transmission Line Corridor

Presenter: David Bienemann, City of Hamilton

The process of reviewing a transmission line that is overgrown with trees, brush, and invasive honeysuckle for line clearing can be a daunting but necessary task. The initial line was reviewed by helicopter and a follow-up foot patrol. Then they created a vegetation management plan to clear the high-risk locations and follow up with herbicide applications. They also had to do an environmental impact survey of the transmission lines before doing any work. This presentation will walk through the process of approvals from various federal and state governmental agencies to allow for line clearing and herbicide applications to the transmission line corridors.

CEUs: ISA C, U, M, BCMA Practice; 5

Thursday, February 9

Climbers' Corner

10:00 am - 11:00 am

Spar Wars

Presenter: Zach Richards, LaRoche Tree Service

An Interactive discussion on spar tie-in techniques, ranging from minimalist (low hardware) setups to gear-intensive versions, with particular attention to cinching systems.

CEUs: ISA C, U, M, TWc, TWa, BCMA Practice; CTSP

2/9/2023

11:00 am - 12:00 pm

SRT/SRS Tie-In Techniques

Presenter: Zach Richards, LaRoche Tree Service

It's the alphabet soup! But do not let the letters confuse you. This discussion and demonstration will focus on the single rope technique (SRT).

CEUs: ISA C, U, M, TWc, TWa, BCMA Practice; CTSP

Commercial

10:00 am - 11:00 am

What's Wrong With This Tree: Diagnosing Tree Problems

Presenters: Joe Boggs, OSU Extension - Hamilton County; Jim Chatfield, Retired; and Erik Draper, OSU Extension - Geauga County

This program involves the diagnostic process of determining tree problems, from insects to diseases, to arboricultural disorders. This encompasses the 20-question process for evaluating the right questions to ask and includes case studies, both new and old. Just as is the case in real life for arborists, the instructors will engage in a spirited debate about the possible threats to tree health.

CEUs: ISA C, M, BCMA Practice; 4A

11:00 am - 12:00 pm

Cultivating Students

Presenter: James Funai, Ph.D., Tri-C Community College

Internships are a crucial pathway to full employment but must be executed properly. Just as a high-quality and engaging internship is great for workforce development, a poorly planned and executed internship is detrimental to your recruiting potential. Jim will share insights from years of helping companies organize proper internship programs to build their workforce.

CEUs: ISA C, U, M, TWc, TWa, BCMA Management

Municipal

10:00 am - 11:00 am

It Takes a Village to Raise Trees

Presenter: Jennifer Kipp, City of Cleveland

During the last decade, we have seen a significant shift in recognizing the importance of tree canopy in U.S. cities. This shift grew into a call for action for many cities to start planting more trees. Across the nation, all levels of government heard the call and responded with a boost in political will and funding to plant trees. That sounds like a great idea and a simple solution, right? Jennifer will look at how this movement manifested in Cleveland, what Cleveland has done to rally around tree preservation while raising the future tree canopy, and why cultivating and leveraging relationships is so critical to long-term success.

CEUs: ISA C, U, M, TWc, TWa, BCMA Management

11:00 am - 12:00 pm

Recruitment and Retention: Why Cities Need Large Trees

Presenter: Kim Landsbergen, Ph.D., Antioch College

Urban foresters know that "megadendrophobia" is real. Ecologically, what do large DBH trees do for communities that smaller trees don't? What information beyond iTree reports can we use to persuade cities and landowners to retain and maintain large trees? How have the last 20 years of urban development impacted urban canopy structure and function? These questions and more will be addressed by summarizing recent scientific findings on urban ecosystem function.

CEUs: ISA C, U, M, TWc, TWa, BCMA Management

Utility

10:00 am - 11:00 am

Insects Affecting Conifers

Presenter: Ashley Kulhanek, OSU Extension

Conifers form a major portion of the shrubs grown by commercial nurserymen. With their amazing variety of forms and shades of green and yellow, conifers are among the most important landscape plants. Although conifers generally require little care, they are occasionally damaged or killed by insects. In this session, you will learn more about insect species found in and affecting conifers: the good, the bad, and the hungry.

CEUs: ISA C, U, M, TWc, TWa, BCMA Science; 6A

11:00 am - 12:00 pm

A History of Utility Vegetation Management

Presenter: Geoff Kempter, Asplundh

Since the first telegraph wires were strung, there has been controversy over the methods used to maintain encroaching vegetation. This presentation provides historical examples of how these issues have been approached over the past 150 years, how science, economics, ignorance, and politics have affected the debate, and a vision for the future that avoids past mistakes and allows ROWs to be managed for maximum benefit.

CEUs: ISA C, U, M, BCMA Management

All Tracks Combined

1:00 pm - 2:00 pm

Spotted Lanternfly: Anticipating the Arrival of the Unwanted

Presenter: Ashley Kulhanek, OSU Extension

The spotted lanternfly is the latest invasive insect to affect Ohioans. This session will provide an introduction and updates about the spotted lanternfly in Ohio.

CEUs: ISA C, U, M, TWc, TWa, BCMA Science; 6A

2:00 pm - 3:00 pm

Trees You Should Know: The Tree Amigos Digress

Presenters: Joe Boggs, OSU Extension - Hamilton County; Jim Chatfield, Retired; and Erik Draper, OSU Extension - Geauga County

In this session, the *Tree Amigos* will take a look at the history, the multiple perspectives, and the future of tree selection for Ohio's urban and woodland forests. From pest and disease susceptibility and resistance to the looming effects of climate change to the best bang for your buck concerning maintenance issues, good tree selection is essential to good arboriculture.

CEUs: ISA C, U, M, TWc, TWa, BCMA Science; 4A

CEU Legend

ISA A—Certified Arborist; **M**—Municipal Specialist, **U**—Utility Specialist, **TWc**—Tree Worker Climber Specialist, **TWa**—Tree Worker Aerial Lift Specialist, **BCMA Science**, **BCMA Practice**, **BCMA Management**

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

Certified Treecare Safety Professional CTSP

OCNT 1 credit per day/self-reported

SAF 2/7 Cat. 1-7.50, 2/8 Cat. 1-5.5, Cat. 2-1.5, 2/9 Cat. 1-4.0

Speaker Bios

Christine Balk is a technical advisor for The Davey Tree Expert Company. The service team guides in diagnosing and prescribing the best products, application procedures, pest, disease, and cultural practices to be used at the customer site. She is a graduate Research Associate from The Ohio State University. Christine has been with Davey since 2014.

David Bienemann serves as the municipal arborist/utility forester for the City of Hamilton, Ohio, responsible for planning, organizing, and directing all activities related to the acquisition, planting, and growing of trees on City properties and rights-of-way. He also coordinates and directs the utility line clearance program for the City's Electric Division.

David previously served as the municipal arborist for the City of Bowling Green, and the Manager of Forestry for Ohio Edison Company in Akron. He holds a B.S. in Forestry from Iowa State University and a B.S. in Labor Economics from the University of Akron. He has been an ISA member since 1993, ISA TRAQ, and an ISA Certified Arborist since 2004. David has been active in the Ohio Chapter ISA for over 32 years. He served on the Ohio Chapter ISA Board of Directors as president, the Society of Municipal Arborists' Board of Directors, the State of Ohio Urban Forestry Advisory Committee, the UAA Research Committee, and the Ohio UAA as president. He has completed multiple public education seminars on trees and arboriculture since 2004.

David enjoys hunting, fishing, hiking, traveling, reading, and spending time with his family.

Joe Boggs is an assistant professor with OSU Extension, Hamilton County, and the OSU Department of Entomology. He has 30 years of experience specializing in tree and shrub diagnostics and pest management.

Enrico Bonello, Ph.D., is a chemical and molecular ecologist who studies interactions among trees, fungal pathogens, and insect pests. He is a professor in the Department of Plant Pathology at The Ohio State University and also holds appointments at Wright State University, the University of Florence, Italy, and Nanjing Forestry University, China. Dr. Bonello completed an M.Sc. in Forest Sciences at the University of Padova, Italy, and obtained a Ph.D. in Forest Pathology from the University of Oxford, U.K. He then conducted postdoctoral work at GSF Muenchen, Germany, and the

University of California, Berkeley and Davis, before being hired as an Assistant Professor at The Ohio State University in 2000. He was promoted to full professor in 2010. His current research efforts are centered on understanding molecular and chemical mechanisms of tree resistance to both indigenous and alien invasive pathogens and insects, early diagnostics, and translation of fundamental knowledge into tools and policies to improve forest health protection around the world.

Ann Bonner has been a regional urban forester with the Ohio Department of Natural Resources for the last 27 years. Before that, she dabbled in urban forestry in central Ohio and earned her B.S. from The Ohio State University.

Shana Byrd is the senior director of science and conservation at The Dawes Arboretum in Granville, Ohio. Shana received her Bachelor of Science degree in Environmental and Plant Biology with a specialization in Field Botany from Ohio University in 2001 and has been involved with natural resource management and education for the past 19 years. She earned her Master of Arts in Zoology degree in the Global Field Program at Miami University, focusing on environmental stewardship and global conservation awareness.

Shana spent nearly 9 years with the Wilds Restoration Ecology Program focused on project management, biological monitoring, research, public education, and conservation issues. She also developed a formal Natural Resource Management Plan for the Wilds based on the organization's strategic vision. Before this, Shana spent four years with a sustainable development organization, Rural Action Inc., focused on outreach in community forestry. As a plant specialist and outreach coordinator, she facilitated numerous landowner education events and presented talks on a range of ecological subjects. Afterward, she continued involvement with rural action through two consecutive terms of service on the organization's board of directors. She now raises public awareness of native plant communities through service on the Ohio Invasive Plant Council Board of Directors.

In her current position at The Dawes Arboretum, she oversees the management of the preserve's natural areas encompassing nearly 2,000 acres of woodlands, wetlands, meadows, and streams.

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.

Don Cipollini, Ph.D., is a professor of biology and director of the environmental sciences Ph.D. program at Wright State University. He studies tree-pest interactions and ecology and management of invasive plant and insect species. In 2014, he discovered that emerald ash borer would utilize hosts beyond the ash tree genus, most notably white fringetree. He is a graduate of Pennsylvania State University and the Indiana University of Pennsylvania.

Erik Draper has been the commercial horticulture educator for The Ohio State University Extension of Geauga County, located in Burton, Ohio for the past 26 years. One of Erik's major emphasis and specialties is to actively use, teach, develop, and refine all critical thinking skills necessary to diagnose biotic and abiotic plant disorders and phytoforensics. As a commercial horticulture educator, Erik also conducts research in Wooster, Ohio, on crabapples, evaluating the impact of multiple diseases, insects, bloom timing, and duration on the overall impact on whole plant aesthetics. Erik has written numerous articles regarding trees, plant diagnostics, and sensible pruning for the American Nurseryman and Fine Gardening magazines.

William (Bill) Fountain, Ph.D., has been at the University of Kentucky for over 4 decades and is a BCMA, Registered Consulting Arborist, TRAQ instructor, and Tree and Plant Appraisal instructor. He has served on the ISA Board of Directors and numerous committees. Bill is also the Kentucky Arborist Association's president for a couple of more weeks.

James Funai, Ph.D., is the assistant professor of plant science and landscape technology at Cuyahoga Community College. He is an ISA Certified Arborist and TCIA Certified Treecare Safety Professional. Jim was named the 2022 outstanding educator of the year by the National Association of Landscape Professionals Foundation. He is a graduate of The Ohio State University where he originally studied engineering. After searching for career options, his advisor showed him the world of landscape horticulture. It wasn't until after he became a teacher that he earned additional graduate degrees including a master's in extension education from Colorado State University and after several trips back and forth, his Ph.D. in soil engineering from Mendel University in Brno, Czech Republic.

Brian Goodall is an arborist and educator. He loves trees, climbing, and his family. Brian is not an expert by any form or meaning of the word, but he is here to pay gratitude to those who came before him and share what has been shared with him. Brian is the city forester for Dublin, Ohio. 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 (IVM) specialist for ACRT Services. With his wide-ranging right-of-way (ROW) 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 (UAA) and past president of 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.

Rosalie Hendon manages natural resource projects on city parkland – everything from forests to prairies. She holds two master's degrees from The Ohio State University in public administration and natural resources. An advocate of data-driven approaches to conservation work, Rosalie frequently surveys species in Columbus parks to determine the effects of habitat restoration. She believes the local government has a critical role to play in environmental policy.

Geoff Kempter is the technical services manager for Asplundh with 33 years of experience in utility arboriculture and urban forestry. He is the past president of the Utility Arborist Association. He is a co-author of Utility Arboriculture, the Utility Specialist Study Guide, and author of the ISA Best Management Practices Guide for Utility Pruning. Geoff teaches tree risk assessment qualification (TRAQ) for the ISA and is an instructor at the University of Wisconsin Stevens Point Utility Vegetation Management Certificate Program. He has served on the ANSI A300 Tree Care Standards Committee since 1996, on the ISA board, the TREE Fund Board, and as ISA certification chair. Geoff holds a degree in Natural Resources from the University of Michigan.

Jennifer Kipp became the urban forestry manager in Cleveland in 2013. As a manager, she plans and directs the daily operations of the urban forestry section which includes: analyzing internal processes and revising policies and procedures to optimize operations; managing and reconciling the multi-million-dollar contractual budget; establishing and maintaining internal and external relationships to accomplish shared goals; establishes productivity goals and measures staff performance, and directs and oversees staff training programs. In 2018, Jennifer helped Council write the Tree Preservation Ordinance and she fights to save healthy, mature trees daily.

Jason Knowles is the owner of Knowles Municipal Forestry, LLC, and is responsible for providing urban forestry services to municipalities, colleges, universities, parks, and private properties. He has experience in planting, pruning, protection, treatment, removal, risk assessment, and appraisal of trees. This experience has given him extensive knowledge of urban forestry operations and the credentials needed to consult effectively with municipal personnel, private property owners, land managers, urban forestry professionals, insurance providers, legal advisors, contractors, and others in need of such services.

Brian Kralovic 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 while spending all summer pruning young trees. 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 sales for LaRoche Tree Service in Bellaire, Ohio. Brian is an ISA Certified Arborist, Municipal Specialist, and TRAQ.

Ashley Kulhanek is the agriculture and natural resources extension educator in Medina county. She earned her master's of entomology from The Ohio State University and now specializes in entomology outreach at OSU extension.

Kim Landsbergen, Ph.D., is the associate professor of biology and environmental science at Antioch College in Yellow Springs, Ohio. She is a Certified Senior Ecologist, specializing in invasive plant biology, climate change impacts on forests, soil carbon dynamics, urban ecosystems, and ArtScience collaborations. Kim has B.S. (double major) in chemistry and biology from the University of Memphis, an M.S. in forestry and environmental studies from Duke University, School of the Environment; and a Ph.D. in forest ecosystem analysis from the University of Washington College of Forestry.

Jennifer Milbrandt is the coordinator of natural resources for the City of Strongsville, where she is responsible for managing the urban forest, as well as the landscape maintenance program throughout the city. She is also responsible for all the city's environmental programs, and the annual winter wonderland holiday display, and acts as the liaison to the utilities.

After receiving her degree from Kent State University, Jennifer worked at the Davey Tree Expert Co. At Davey, she worked in the plant diagnostic lab, identifying disease-causing organisms, insects, and performing soil analysis. She also

provided technical support to field offices across the U.S. and Canada. Jennifer was at Davey at the inception of the Davey Resource Group, the environmental consulting division. She traveled to numerous municipalities and military bases conducting inventories and creating management plans.

Jennifer is an ISA Certified Arborist, is Tree Risk Assessment Qualified, and is part of the FEMA – USFS Strike Response Team. Jennifer is also president of the Ohio Independent Arborists Association and serves on the board of the Rocky River Watershed Council.

Stephanie Miller is the northwest Ohio regional urban forester with the Ohio Department of Natural Resources, Division of Forestry. Most of her time is spent providing technical and organizational assistance to communities in her 19-county region headquartered in Findlay.

Stephanie is originally from central Indiana where she learned to love the outdoors. After earning her B.S. in Forestry with an Urban Option from Purdue University, she fine-tuned her skills with ACRT for 5 years. Her positions included utility forestry supervisor in Michigan for Consumers Power, then as a utility work planner for AEP in northwest Ohio, and assisting with street tree inventories in several U.S. cities.

Stephanie began her career with the Ohio Division of Forestry in 1997 as a service forester working one-on-one with private forest landowners. A year and a half later, she transferred to the urban forestry position. She is an ISA Certified Arborist, Municipal Specialist, Tree Risk Assessment Qualified, and a Society of American Foresters Fellow.

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 32 years and served as a safety specialist for the past 17. 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. Roy is a proud member of the City of Dover, Ohio Shade Tree Committee, Boy Scout troop leader, and father of four children.

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.

Keith Pancake is a safety manager serving ACRT Inc. and Bermex. He has been involved in the UVM industry for over a decade. He is an ISA Certified Arborist and Utility Specialist, an NSC-certified Defensive Driving Instructor, and the 2018 Utility Arborist Association's Will Nutter Silver Shield recipient. Keith is a multi-stage presenter and contributes regularly to industry publications and webinars.

Lindsey Purcell, urban forestry specialist and principal of Lp Consulting Group LLC, has been involved in the community landscape and urban forestry industry for over 40 years. As an ISA Board Certified Master Arborist, he has served communities around the U.S. as a landscape and tree professional in the state, municipal, and private enterprise. In his role as a presenter, freelance writer, and author, Lindsey continues to provide many instructive opportunities and products for professional arborists and urban foresters on a national level. His educational background includes an Associate of Science degree from Vincennes University, a Bachelor of Science degree from Purdue University, and a master's degree from Indiana State University. Lindsey serves as executive director of the Indiana Arborist Association and former extension specialist and instructor for Purdue University Forestry and Natural Resources. Lindsey is an ASCA Registered Consulting Arborist and holds the ISA Tree Risk Assessment Qualification as a certified instructor by the International Society of Arboriculture.

Zach Richards is an ISA Certified Arborist and former contract climber from central Pennsylvania specializing in technical rigging and crane work. He is currently the director of training and employee development at LaRoche Tree Service where he works with individuals and crews to increase efficiency and safety in the field. Zach has helped create standardized, repeatable, training programs for LaRoche. He also works in the field, handling the trouble trees, technical removals, and large climbing prunes.

Kodi Riedel is the Davey Institute diagnostic laboratory supervisor. She has been in the green industry for thirteen years. In her position, Kodi leads the diagnostic laboratory support services for the Davey Tree Expert Company throughout the United States and Canada. Her responsibilities also include plant problem diagnosis, report writing, lab management, and technical advising to field-based arborists in the industry. Throughout her career with Davey, she has worked on various research projects including, Nature clock, urban forest tree evaluations, and pollinator habitat management and development. Kodi is an adjunct professor at Kent State University and she serves as a director on the Ohio Chapter ISA's Board of Directors, as well as co-chair of the education/public

outreach committee. Kodi graduated from The Ohio State University with a master's in Plant Health Management. She has a bachelor's degree in Biology from Kent State University and is an ISA Certified Arborist

Colby Tisdale has been working with managing utility companies' Integrated Vegetation Management systems for over ten years and is a regional project manager for ArborMetrics. Colby is an ISA Certified Arborist, Utility Specialist, and holds the Tree Risk Assessment Qualification.