



ARBORCON 2019 - AGENDA



Tuesday, February 12

8:00 – 8:30AM

W.I.R.E.D

Welcome to ArborCon 2019, Introductions of Dr. Asia Dowtin – Assistant Professor of Urban & Community Forestry, MSU, Department of Forestry; Tip Tucker of ISA, and ASM Review from Executive Director, Annie Kruse, CMP.

8:30-9:30AM

KEYNOTE: Customer Service vs. Customer Experience - Wes Tregilgas, Wright Tree Service

For every tree, there is a tree owner. One of the most challenging and required skills for arborists is how to win with communications. Whether you're in utility vegetation management, municipal or commercial arboriculture, this presentation will provide insight to resolving customer conflicts, new ways to find the best of your customers and how to keep them. **Credits: ISA, MDARD**

10:00-11:00AM

A Sticky Situation - Spotted Lanternfly - John Bedford, MDARD- Pesticide and Plant Pest Management Division

Early detection and timely reporting of an invasive species is crucial for increasing the chances of preventing its establishment and limiting potential ecological, social and economic impacts. Such is the case with spotted lanternfly (SLF), one of the newest additions to Michigan's Invasive Species Watch List. This session will focus on the threat, impact, biology, signs & symptoms, identification and proper reporting mechanisms for SLF. **Credits: ISA, MDARD**

MSU Grad Student Sessions: Credits: ISA, MDARD

-Legacy Effects of Emerald Ash Borer on Riparian Forests' Structure - Patrick Engelken, Michigan State University Emerald ash borer (EAB) is established in 35 states and five provinces. Previous studies documented EAB impacts in forests, but little is known about its potential effects in riparian forests and stream systems. This session will focus on the impact of ash tree loss on riparian systems.

-Pest Damage on White Pine: White Pine Weevil and Caliciopsis Canker Disease - Katherine Minnix, Michigan State University. White pine weevil, a native insect, colonizes and kills white pine terminal leaders, causing bole defects and affecting tree value. Caliciopsis canker disease is an emerging disease of eastern white pine throughout much of its range. The disease is characterized by reddish, sunken cankers on white pine branches and stems that eventually coalesce and girdle branches and the tree. This session covers current and future research on effects and treatments of white pine weevil and Caliciopsis canker disease and their impacts on Michigan's forests.

-Preliminary Biology and Epidemiology of Oak Wilt in Michigan—Karandeep Chahal, Michigan State University

5 Ways to Better Your Social Media - *Malcolm Jeffris, ArboRisk*

This session presents 5 strategies to gain more business from social media including; real photos/stories, video, engagement with followers, collaboration with others, online tools to find content. **Credits: ISA**

DEMO TREE: DRT Work Positioning While Pruning - *Macintosh Swan*

Exploring the benefits and pitfalls of utilizing two separate climbing systems while pruning trees with spreading canopy. **Credits: ISA**



11:10AM-12:10PM

Herbicide Toxicity to Trees and Landscape Plants - *Dr. David Roberts, The Plant Doctor LLC*

With the plethora of herbicides available on today's market, trees and other landscape plants are being affected if not killed at an alarming rate. Symptoms caused by herbicide issues range from mild to wild. This session will cover some of the common and uncommon herbicide problems, how to diagnose them, how to avoid them and how to remediate them. **Credits: ISA, MDARD**

Diagnosing and Managing Conifer Pests - *Jill O'Donnell, MSU Extension*

Diagnosing the cause of problems in conifers can be tricky. The browning and shedding of needles, branch or twig dieback can be caused by many stresses including drought, flooding, herbicide damage, salt toxicity, insects, mites or fungi. This session will help you identify the major insect pests and diseases for the different conifers we find in Michigan landscapes. **Credits: ISA, MDARD**

Right-of-Way Vegetation Management: Brush and Vines - *John Stone, MSU*

Woody plants and vines encroach on and can damage perimeter fencing, trails, paths. This talk looks at their ecology and management. **Credits: ISA, MDARD**

DEMO TREE: Climbing Gear Inspection - *Jason Diehl, At Height*

Gear inspection, a look at gear for comps and the requirements for everyday use. A look at ISA approved gear versus ANSI. A general guideline for inspection, care, and retiring of climbing equipment. **Credits: ISA**



1:30-2:30PM

KEYNOTE: Ethics in Arboriculture - *Lindsey Purcell, Purdue University*

Arboriculture has evolved into an applied science over many years and basic principles have forged the way for our industry and continue to influence practice and philosophy. Learn how we can build an ethical practice based on the tenets of the medical profession and create a sustainable environment for our business, employees and customers. **Credits: ISA, MDARD**

3:00-3:55PM

What Do Trees Think of Pruning? - *Lindsey Purcell, Purdue University*

They may not say much about it, but how they respond to this important arboriculture practice is often not fully understood by practitioners. This session will provide a survey into the essentials of pruning including physiological and biomechanical responses from trees. This talk is offered again Wednesday morning in the Governor's Room. **Credits: ISA, MDARD**

Gain Customers Without Having to Sell: Content Marketing for Arborists - *Eric Petersen, ArboRisk*

Gone are the days where consumers purchase a product or service based solely on the salesperson's ability to convince them to buy. Today, the vast majority of the sales process is done by the consumer before they even reach out to you. So how do you earn the trust of your future customers before they

pick up the phone to call you? You do it with Content Marketing. This presentation will walk you through what Content Marketing is and how to implement a strategy in your business. **Credits: ISA**

OW & Spruce Decline Based on Research – *Dr. Monique Sakalidis, MSU Plant, Soil & Microbial Sciences and Forestry*

Oak wilt is a devastating disease that causes the rapid death of oaks across the US. Spruce decline is primarily a disease of landscape Colorado Blue Spruce, where, over a number of years there is a gradual bottom up loss of needles and branches in these trees. The Forest Pathology Lab at Michigan State University conducts research on a range of diseases that affect trees in forest, landscape, nursery and Christmas tree settings. Dr. Sakalidis will provide a current overview of oak wilt and spruce decline research and best practice recommendations for managing these diseases, and future research directions. **Credits: ISA, MDARD**

DEMO TREE: Aerial Rescue From a Spar - *Macintosh Swan*

A demonstration of a simple, effective technique for retrieving a worker from a spar in an emergency. Including a discussion of potential complications to be encountered and a discussion of when, why, why not to perform an aerial rescue. **Credits: ISA**

4:00-5:00PM

Avoid the 7 Deadly Sins of Work Comp - *Malcolm Jeffris, ArboRisk*

A work related injury can be very disruptive to your businesses goals. Malcolm Jeffris, from ArboRisk, will be speaking on key pieces you need to have in place to mitigate damage done if one of your employees is injured on the job. We'll discuss topics ranging from light duty/return to work program ideas, to getting the right plan in place with your Occ. Health clinic. **Credits: ISA**

Improving Transplanting Success of Container-Grown Trees – *Dr. Bert Cregg, Michigan State University*

Container-grown trees occupy an increasing proportion of the landscape tree market. Questions persist among arborists and landscapers, however, on methods for transplanting container-grown trees to reduce circling roots and ensure rapid establishment. Dr. Bert Cregg (Departments of Horticulture and Forestry) reviews some of his lab's current research on the topic and offers recommendations to get trees up and growing. **Credits: ISA, MDARD**

Update on Hemlock Woolly Adelgid & Insect Vectors of Oak Wilt – *Dr. Deb McCollough, Michigan State University*

This presentation includes an overview of current hemlock woolly adelgid (HWA) distribution in Michigan, the ongoing detection and treatment program, HWA seasonal development and survival and current results of insecticide trials. Preliminary results from ongoing research on nitidulid beetles that vector oak wilt will be summarized. Data include activity periods and contamination rates of nitidulid species, development of red oak xylem and ongoing work to assess volatile compounds produced by oaks. **Credits: ISA, MDARD**

DEMO TREE: Anatomy of a Catastrophic Rigging Failure - *Donald Blair, Blair's Arborist Equipment LLC*

There's nothing better than a job in which everything comes together. There's nothing worse than a job in which everything falls apart. With video footage of the incident as it happens, Don Blair goes step by step through the decisions that led to this disaster and more importantly, details all of the missed opportunities that would have prevented it in the first place. Real life application of Z133 ANSI Standards. **Credits: ISA**



5:15-5:45pm

Demo Tree Mini Session: A Rope Is a Rope until It's KNOT A Rope—Jason Diehl, At Height

This session will provide a general knowledge of basic rope construction and characteristics, and suitable applications for each type of rope. Also covering basic safety for rope care, storage and retirement practices. **CEU's available.**

Wednesday, February 13

8:00-9:00AM

Everything You Wanted and Did Not Want to Know About the Asian Long-horned Beetle – *Dr. Fredric Miller, Joliet Junior College and The Morton Arboretum*

The Asian long-horned beetle (ALB) has been around since the 1990s and is as close to Michigan as southeastern Ohio. ALB feeds on a variety of hosts, but maples are, by far, its most preferred tree host along with birch, elm, ash, poplar, horsechestnut, and willow. Like, the emerald ash borer (EAB), ALB is an exotic, invasive insect pest originating from Asia and the Far East. This presentation focuses on what we mean by an invasive, exotic pest, why and how these pests are important, and what factors contribute to their extremely destructive effects. **Credits: ISA, MDARD**

Important Survival Factors for Newly Planted Trees - *Wei Zhang, Tree Diaper/Zynnovation LLC*

The most common causes of death of newly planted trees are underwatering and overwatering. Because underwatering and overwatering are the most common ways of tree losses, soil moisture is the most important factor for tree survival. This session identifies the major factors that cause death of newly planted trees and provides techniques to mitigate these factors. **Credits: ISA, MDARD**

Assessing the Urban Forests of Michigan/Lansing City Forestry Today - *Kevin Sayers, Michigan Department of Natural Resources; Irene McDonnell Cahill, City of Lansing Public Service Dept.*

A report on the state of Michigan's urban forests based on information gathered by the Michigan DNR's Urban and Community Forestry program. This presentation will be given in conjunction with the City of Lansing's State of the Urban Forest report. **Credits: ISA, MDARD**

DEMO TREE: A Condensed History of Arboriculture Gear - *Donald Blair, Blair's Arborist Equipment LLC*

As we are constantly looking to the future of Arboriculture, it is altogether fitting and proper to look back at how much the profession has changed over the past 150 years or so and yet, marvel at how much has stayed the same. Come and enjoy a trip through history as arborist/historian par excellence Donald F. Blair shares what our predecessors thought about the use of spurs in trees in 1881 or the practice of topping in 1907; and what the first generation of chainsaws looked like. Be amazed at how much work was done by so few with so little for so many years. **Credits: ISA**

UTILITY TRACK: Increased Risk of Wildfire: Avoiding a Catastrophe - *Geoff Kempter, Asplundh*

There are many factors that are putting people and property at greater risk of wildfire. This presentation discusses what is happening in California and other western states, the risk of wildfire in Michigan, and how such catastrophes can be avoided. **Credits: ISA**



9:10-10:10AM

Are Plants Really Resistant to Pests and Pathogens? Host Plant Resistance Defined and How to Make Better use of it in Comprehensive Plant Health Care (PHC) Programs - Dr. Fredric Miller, Joliet Junior College and The Morton Arboretum

Since Painter's 1951 treatise on host plant resistance (HPR), it has become a central component of integrated pest management (IPM) programs for many agronomic crops. While HPR has long been recognized as a viable IPM strategy for woody ornamental plants, historically adoption and implementation has been ignored or slow at best. This presentation defines HPR, discusses how plants defend themselves from stressful and deadly insects pests, pathogen, and abiotic factors, and offers practical suggestions for implementing HPR tactics into PHC programs. **Credits: ISA, MDARD**

Stemflow 101 – Dr. Asia Downtin, Michigan State University

Stemflow serves as an important means by which water, nutrients, and pollutants are transported by urban trees, yet it is often overlooked in research and practice. This session explores the structural characteristics of the urban forest that may impact stemflow production and chemical composition, variations in stemflow yield between different tree species, and practical applications of this knowledge in arboriculture and urban forestry. Various techniques for installing and utilizing collection devices to capture, quantify, and study stemflow will be introduced. **Credits: ISA, MDARD**

The Importance of Urban Forest Advocacy - Joe Sulak and Dan Coy, City of Grand Rapids, MI

The story of how advocacy from a specific tree loving group of citizens in Grand Rapids initiated the creation of the Urban Forest Committee, treatments for Ash trees to combat EAB, setting the city's 40% canopy goal, initiating tree canopy studies, and securing funding for the city's tree inventory. Also included are results from the current EAB 10-year progress report. **Credits: ISA**

DEMO TREE: What Do Trees Think of Pruning? - Lindsey Purcell, Purdue University

They may not say much about it, but how they respond to this important arboriculture practice is often not fully understood by practitioners. This session will provide a survey into the essentials of pruning including physiological and biomechanical response by trees. This talk also presented on Tuesday, Feb 12. **Credits: ISA, MDARD**

UTILITY TRACK: Safety for the Single Crew - Henry King, Arbor Metrics

The unique requirements of ensuring the safety and well-being of the single person crew in utility forestry is not often considered in our industry. Utility arborists work in a wide range of environments, from areas with increased crime and violence to rural rights-of-way with little to no cell phone coverage. Poisonous plants and animals, extreme weather, aggressive dogs, constant driving, landowners, and the physical environment can all pose a safety risk, especially to the single person crew. How can technology, training strategies, and work procedures minimize risks and the likelihood for a safety event to occur? Case studies are highlighted with lessons learned from actual incidents. Bringing attention to how utility vegetation management personnel and contractors can manage and improve their safety programs for the single person crew is the goal. **Credits: ISA**



11:30AM-12:30PM

A Tale of Two Cities: Transformational Effects of Street Tree Inventory Data on Detroit and Ann Arbor- Todd Mistor, City of Detroit; Kerry Gray, City of Ann Arbor

How can a street tree inventory be the greatest asset of a municipal Forestry program? The City of Detroit has experienced intense disinvestment for decades: loss of population, diminished resources and ever shrinking budgets and programs, finally leading to one of the largest municipal bankruptcies in the

country. This in turn triggered accountability that had not been present or even possible for a long time. In an effort to offer quantifiable justification for operational resources, the city Forestry division was able to amass a complete street tree inventory. The data was used to justify budgetary expenditures and lead to a rebuilding of program goals. **Credits: ISA**

UTILITY TRACK: Professionalizing Utility VM Programs - Mike O'Connor, Consumers Energy

Discussion focuses on increasing the professional manner in which Utility VM Programs are managed. Publics including utility customers, regulators and utility senior management all expect professionally managed VM programs and most are behind the curve. What practices need to be placed on the shelf and what new practices need endorsement to move VM programs forward for the next decade. **Credits: ISA, MDARD**

12:30-1:30PM

MSU Grad Student Sessions Credits: ISA, MDARD

- **Evaluation of an Invasive Insect: The Asian Chestnut Gall Wasp and Its Effects on Michigan Commercial Chestnut Orchards - Louise Labbate, Michigan State University**
Commercial chestnut production is threatened by an invasive insect, the Asian chestnut gall wasp (ACGW). This session discusses ACGW and its effects on chestnut trees and potential impacts to commercial chestnut orchards.
- **Exploring the Main Drivers of Urban Tree Form and Growth - Georgios Arseniou, MSU Forestry Department.** Management of urban trees depends on accurate tree data. Tree architecture is a function of genetic and environmental factors. Our current understanding of tree growth in urban areas is limited due to small sample size, narrow spatial extent and few studied species. We are interested to know what are the main drivers of form, growth and space-filling character of trees in urban areas. How terrestrial LiDAR data is expected to support better understanding in this field of urban tree research is discussed.
- **Improving Root Systems of Container-Grown Trees Through Pre-plant Root Modification - Riley Rouse, Michigan State University.** Container-grown tree production is increasing, but arborists are concerned about root defects associated with plastic containers, such as circling and girdling roots, persisting post-transplant. This study compares development of three cultivars to root modifications advocated to promote establishment: shaving and bare-rooting.

Using Inventory Data to Proactively Manage Forestry Operations - Joe Sulak, City of Grand Rapids, MI

A technical based session focused on Grand Rapids' use of GIS data, a digital work order system and urban forest analytics to create a proactive forest management plan. **Credits: ISA**

Construction Management Around Trees - Communicating Effectively with Design Professionals - Jeff Dice, retired, Penn State University

The "approach distance concept" for managing construction around trees and how tree protection standards are effectively communicated to design professionals will be discussed in this session. **Credits: ISA**

DEMO TREE: Hiring Best Practices for Arborists - Jim Skiera, ArboRisk

Hiring is one of the most difficult challenges that a tree care owner faces. Despite the frustrations that hiring presents, you can get great employees on your team by setting up a structure for your hiring

process. This presentation gives you the framework that you can use tomorrow to assemble the best team possible. **Credits: ISA**

UTILITY TRACK: Stewardship Through IVM - *Phil Chen, CNUC*

What is IVM? In this talk we will learn what IVM is, how and why it became an industry best practice, and how it can help us in our role as stewards. Through sustainable IVM we can best serve our corporate, social, and environmental needs. Let's all learn to move beyond compliance to something better. **Credits: ISA, MDARD**

2:15-3:15PM

Michigan's Invasive Forest Pest Efforts- *John Bedford, MDARD- Pesticide and Plant Pest Management Division*

Michigan's trees continue to be at risk from a number of invasive forest pests. There are organized efforts taking place to prepare for, prevent, detect and respond to current and potential invaders. A critical component of that work is educating and engaging those who are in the best position to recognize the early signs and symptoms of these invaders and to properly report them. Arborist are on the top of that list. This session will inform attendees about forest pests that are currently on the State's Invasive Species Watch List. Presented information will include: the threat they pose, how to prevent them, the plants they attack, how to identify them, their signs and symptoms, how to properly report them and if already present in the state, what is being done to managed them. Asian longhorned beetle, hemlock woolly adelgid, balsam woolly adelgid and others will be discussed. **Credits: ISA, MDARD**

When Trees Are Lost - We Owe It to The Future to Make the Most Imaginative Use of What Misfortune Has Provided - *Jeff Dice, retired, Penn State University*

The Penn State - Elms Collection and the Michigan State - Shadows Collection were both very successful wood re-purposing programs and could be used as models for other institutions and municipalities. Paul Swartz and Jeff Dice will present a discussion outlining both programs. **Credits: ISA, MDARD**

Grand Rapids' Priority 1 Project - *Joe Sulak, City of Grand Rapids, MI*

Using a comprehensive Public and Private partnership strategy, Grand Rapids Forestry Division is just completing a \$2.4 million Project to remove and prune all trees designated as Priority 1 in the recently completed tree inventory. This presentation walks the audience through the components necessary to plan, approve, bid, award, inspect and complete a project of this scope. **Credits: ISA**

DEMO TREE: Tech & Safety Rodeo: A Rigging Scenario - *Lucas Drews, Aerial Arboriculture Tree Care & Training*
Friction and forces on anchoring systems. A look at tree dynamics and load vectoring during tree removal. **Credits: ISA**



UTILITY TRACK: Why Branches Fail: A Look at Watersprouts and Co-dominant Branches – *Dr. Greg Dahle, West Virginia Univ.*

Every wonder why watersprouts are weaker than normal branches and how to tell when branches are co-dominant? We will discuss why watersprouts are weak and if this is good or bad. Then look at research that is helping to define when a fork is considered co-dominant and thus more weakly attached than a later branch fork. The useful take-home message is better knowledge on the way branches grow and impacts of growth patterns in line-clearance operations. **Credits: ISA, MDARD**

3:25-4:25PM

Pest & Disease Update for 2019 - *Dr. David Roberts, The Plant Doctor LLC*

In this popular, yearly update, Dr. Roberts will present his latest research and observations obtained during 2018 so that we can all be prepared for 2019. The topics include Trellis Rust, Oak Wilt, Beech Bark Disease and a variety of other maladies we need to be aware of to maximize our efforts in plant health care. **Credits: ISA, MDARD**

SB 1188-1194 - Tree Ordinances: Where Do We Go From Here? - *Lee Mueller, Davey Resource Group, Inc.*

During the 2018 lame duck session, the state legislature evaluated senate bills 1188-1194; seeking to restrict communities from limiting tree removal, requiring replacement, or collecting fees for removal on several property types. The bills sparked professional conversation from the importance of tree protection ordinances to how such ordinances are improperly applied. We'll explore the implications of the bills and discuss best practices in the craft and enforcement of these ordinances. **Credits: ISA**

DEMO TREE: Tech & Safety Rodeo: A Rigging Senario Continued - *Lucas Drews, Aerial Arboriculture Tree Care & Training*

Friction and forces on anchoring systems. A look at tree dynamics and load vectoring during tree removal. **Credits: ISA**



UTILITY TRACK: Forces in Rigging - *Wes Tregilgas, Wright Tree Service*

This presentation covers the various forces that can be applied to the tree and how to minimize them to retain the greatest amount of wood strength. There will also be a focus on load multipliers and how rigging equipment and weight in-motion can add loads to the tree where we don't want it. **Credits: ISA**

