The Glass is Half Full: A Call for Optimism

60th Annual Iowa State University Shade Tree Short Course

FEBRUARY 23-25, 2016

Scheman Continuing Education Building • Iowa State University • Ames, Iowa

Sponsored by Iowa State University Extension and Outreach, Iowa Nursery & Landscape Association and Iowa Arborist Association
TUESDAY, February 23, 2016 (Scheman Building)

**Iowa Nursery & Landscape Association Events (Room 275 and 299 Scheman Building)**
The Iowa Nursery & Landscape Association will host an entire day specifically designed for INLA members. The day will feature Iowa Certified Nursery Professional (ICNP) certification testing and a continuing education program for current ICNPs.

9:00 a.m. – 12:00 (Noon)  | Iowa Certified Nursery Professional (ICNP) Testing – Room 275
1:00 – 4:00 p.m.          | ICNP Continuing Education – Room 299
10:00 a.m. – 4:00 p.m.    | Trade Show Set-up
4:00 – 6:00 p.m.          | Trade Show Preview and Exhibitor Reception

**Become an ISA Certified Arborist (Room 250-252 Scheman Building)**
Once again in 2016, the ISU Shade Tree Short Course will host an International Society of Arboriculture Certified Arborist exam. STSC participants wishing to take the exam should register online with the ISA (http://www.isa-arbor.com/certification/index.aspx) or call the ISA at 888-472-8733.

1:00 – 4:00 p.m.           | ISA Certified Arborist Exam – Room 250-252

WEDNESDAY, February 24, 2016 (Scheman Building)

7:30 – 9:15 a.m.           | Registration, Refreshments, and Visit Trade Show (First floor lobby, Scheman Building)
9:15 – 9:30 a.m.           | Opening General Session (C.Y. Stephens Auditorium)
                          | Welcome and Announcements, Donald Lewis, Iowa State University
9:30 – 10:30 a.m.          | *The CODIT Principle*
                          | Dirk Dujesiefken, Institute of Arboriculture, Hamburg, Germany
10:30 – 11:30 a.m.         | **Bees, Politics, and Pesticides – Challenges and Opportunities for the Green Industry**
                          | Dan Potter, Department of Entomology, University of Kentucky
11:30 a.m. – 1 p.m.        | Lunch, Visit Trade Show, INLA Business Meeting, and IAA Business Meeting
1:00 – 2:00 p.m.           | Workshop Session A
2:15 – 3:15 p.m.           | Workshop Session B
3:15 – 4:00 p.m.           | Break and Visit Trade Show
4:00 – 5:00 p.m.           | Workshop Session C
5:00 – 6:30 p.m.           | Hospitality Reception (Open to all attendees) – Reiman Gardens
6:30 – 8:30 p.m.           | Dinner/Scholarship Auction (Open to all attendees – $40/adults and $15/children) – Reiman Gardens

THURSDAY, February 25, 2016 (Scheman Building)

7:30 – 8:30 a.m.           | Refreshments and Visit Trade Show
8:30 – 9:30 a.m.           | Workshop Session D
9:45 – 10:45 a.m.          | Workshop Session E
11:00 – 12:00 (Noon)       | Workshop Session F
12:00 (Noon) – 1:15 p.m.   | Lunch (optional/Scheman Building) or on your own
                          | Trade Show Open for Final Time!
1:15 – 2:15 p.m.           | Workshop Session G
2:30 – 3:30 p.m.           | Concluding General Session (Benton Auditorium)
                          | *Don’t Be That Guy/Gal!*
                          | Gary Johnson, Department of Forest Resources, University of Minnesota
                          | Jeff Iles, Department of Horticulture, Iowa State University
3:30 – 3:45 p.m.           | Evaluation
                          | Adjourn

CONFERENCE at a GLANCE
OPENING GENERAL SESSION
Wednesday, February 24, 2016 - 9:30 a.m.
The CODIT Principle
Picking up where Alex Shigo left off, Dr. Dirk Dujesiefken is with us this year to talk about the many complex changes that occur in trees after wounding. Many of you are familiar with the CODIT (Compartmentalization of Decay in Trees) Principle, but in this presentation you will be introduced to encapsulation. As callus, and later woundwood closes over (encapsulates) a wound, oxygen is no longer available to decay-causing organisms. Ultimately, encapsulation of wood infected by fungi is the survival principle for trees. In his presentation, Dr. Dujesiefken will show how different tree species respond to various types of wounds. Ways to preserve tree health after wounding will be discussed.

Bees, Politics, and Pesticides – Challenges and Opportunities for the Green Industry
You all know how important bees are and how they are threatened by a variety of factors including pesticide use. But are you aware of the opportunities for proactive companies to embrace bee-friendly practices in marketing services of sale of plant materials? In this engaging and illustrated general session presentation, Dr. Dan Potter will cover best management practices for safeguarding bees when treating lawns or landscapes for pests, and highlight recent work documenting which native and non-native woody ornamentals are the “best” for promoting pollinators in urban landscapes.

CLOSING GENERAL SESSION
Thursday, February 26, 2016 - 2:30 p.m.
Don’t Be That Guy/Gal!
After two days of intense and stimulating learning and networking, you might be tempted to just jump in the car and skip the closing general session. But trust me on this one… DON’T DO IT! Coming all the way down from St. Paul, Minnesota is our old friend Dr. Gary Johnson, and he has graciously agreed to team up with local “talent” Dr. Jeff Iles in what will be a rollicking, entertaining, and educational wrap-up session. Gary and Jeff will help you avoid the dreaded “that guy/gal” designation. And you all know who we are talking about, right? The “professional” who thinks “good enough” is actually good enough. The landscape designer who holds tenaciously to the same plant palette they used back in the 1970s! Or the arborist who uses terms like “heal” to describe the way a tree responds to pruning/wounding! Oh, and I almost forgot, “that guy/gal” who wears black socks and sandals?! Wait, that is completely appropriate and acceptable in Minnesota! This should be fun, so hang around and join in on the discussion.

Session A Workshops
A-1.
Top 10 Nasty Insect Pests of Trees and Shrubs and How to Deal With Them*
Dan Potter, University of Kentucky
Lexington, KY
Diagnosis and control strategies for destructive insect pests of woody landscape plants including emerald ash borer and other borers, Japanese beetles, scale insects, caterpillars, mites, sawflies, leaf miners, and other pests will be discussed. Tips on managing pests with non-chemical tactics or reduced risk insecticides with straight talk on which methods are most effective will be highlighted.

A-2. (C-2 Repeat)
Cultivating Great Employees Through Successful Training Programs
Kory Beidler, LandCare
Frederick, MD
ISU alum Kory Beidler (Director of Training and Development for LandCare) is with us this year to talk about effective training programs designed to help employees reach their full potential. When your employees are successful, your company will be successful! Kory will discuss why we train, the costs of retention, barriers to training, and overall training strategies.

A-3.
Plant Health Care and Importance of Woundwood, Callus, and CODIT
(2 hours)
Chris Luley, Urban Forestry LLC
Naples, NY
Assessment of callus and woundwood is critical for evaluating tree health and gauging resistance to insect pests and decay-causing fungi. Wound response is the ability of trees to contain decay-causing fungi both before and after infection. Attend this workshop and learn how to identify the various wound responses of trees, what they mean for pest and decay resistance, and what to do when specific wood decay fungi are present in the tree.

*Qualifying Pesticide Applicator Workshops
**Required Pesticide Applicator Workshop
A-4. (C-4 Repeat)
Swiss Army Landscaping – Multi-use Plants to Connect People with Outdoor Spaces
Graham Herbst, Nebraska Forest Service
Omaha, NE
Urban agriculture and community gardening are exploding in popularity. In this session, Graham will present a nuanced look at the landscape and call on us all to expect more from our yards than beauty. Swiss Army Landscaping encompasses edibility, crafts, soil-building, and so much more. Come to this session and learn how to add new design tools to your work belt.

A-5. (D-3 Repeat)
Diagnosing Health Problems of Woody Plants*
(2 hours) – Limit 30 per session
Laura Jesse and Lina Rodriguez Salamanca, Iowa State University, Ames, IA
Mark Vitosh, Iowa DNR District Forester
Iowa City, IA
As comfortable as a pair of old slippers or your favorite Hallmark holiday special, this ever-popular workshop never fails to delight, entertain, and educate those fortunate enough to gain entry. And just so you know, if you want to gain entry, you'd better sign up early. Seats in this workshop are always the hottest ticket in town. And this year new team member Dr. Lina will join stalwarts Dr. Laura (not that Dr. Laura) and the occasionally acerbic Mark Vitosh. Who knows what alchemy will spring from this strange and unlikely assemblage of plant health professionals, but you can bet it will be entertaining and enlightening.

A-6.
Perennial Plant Communities – The Know Maintenance Approach
Roy Diblik, Northwind Perennial Farm
Burlington, WI
Roy's thoughtful way to design perennial plantings welcomes fresh contemporary styles and plant diversity integrated with responsible maintenance. By using a selection of regionally dependable perennials and native plants, endless natural plant patterns can be constructed, each relating to time and cost to maintain. In this presentation, Roy will discuss the developing partnership between the gardener, the plants, and nature, always knowing that the beauty is in the doing.

A-7.
Renovating the Unseen…An Introduction to Root-zone Excavation
Jason Van Engen, Reliable Property Services
Grimes, IA
Healthy roots are generally thought to be one of the keys to healthy plants, but do you always know what they are doing below ground? Is it worth the time and effort to excavate them to find out? In this workshop Jason will describe the process and procedures, and pros and cons of root-zone excavation.

Session B Workshops

B-1. (E-1 Repeat)
A Candid Conversation on Garden Maintenance
Bryan Kinghorn, Kinghorn Gardens
Omaha, NE
How responsive are we when the request for a low maintenance garden space is the most important landscape design requirement? In this session, Bryan will discuss how low maintenance landscape spaces truly come about.

B-2.
Managing Ancient and Historic Trees
Guy Sternberg, Starhill Forest Arboretum
Petersburg, IL
Engage your imagination and let's talk about giant, ancient, and unique trees. In this workshop, long-time STSC favorite speaker Guy Sternberg will examine what makes monumental and historic trees more than the “renewable resources” of forestry parlance, with some dramatic case studies showing how they should and should not be managed. Learn what you can do in your own neighborhood to help preserve a gift that is irreplaceable on a human time scale – our heritage trees.

B-4.
Good Neighbors
Roy Diblik, Northwind Perennial Farm
Burlington, WI
In this workshop session, Roy will describe an array of perennial plants that can and do live well together without dominating each other or having need of special cultural conditions or treatment. They live well in close-knit communities and seem to understand the old adage… “strength in numbers”. Roy will help participants understand their youthful nurturing, adult care, and overall gardening needs through time.

B-6. (F-6 Repeat)
Turfgrass IPM for Certified Pesticide Applicators (Category 3OT)*
Ryan Adams, Iowa State University
Ames, IA
In this workshop, Ryan Adams (ISU Extension & Outreach) will provide updates on management of turfgrass insects, weeds, and diseases. The Iowa Department of Agriculture and Land Stewardship requires commercial pesticide applicators to receive instruction specific to each category in which they are certified in order to recertify by training. To receive recertification credit in Category 3OT (Ornamentals & Turf) at the ISU Shade Tree Short Course, an applicator must attend Workshop C-7 or G-7 (Continuing Instructional Course for Pesticide Applicators) PLUS workshop B-6 or F-6 (Turfgrass IPM) PLUS one additional pest-management approved workshop as designated by an asterisk (*).

*Qualifying Pesticide Applicator Workshops
**Required Pesticide Applicator Workshop
B-7. (D-7 Repeat)
Oak Wilt: A Manageable Disease*
Limit 40 per session
Jennifer Juzwik, U.S. Forest Service
St. Paul, MN
Oak wilt is one of the most frustrating and devastating diseases we deal with. In this presentation, Jennifer will discuss how to limit the risk of spreading oak wilt when pruning and describe current oak wilt control tools or tactics with known effectiveness. Jennifer will highlight current research and development with the goal of improving diagnostics and control of this disease. If you work with oaks you won’t want to miss this session.

B-8. (D-8 Repeat)
Oklahoma City's Survivor Tree
Mark Bays, Oklahoma Forestry Services
Oklahoma City, OK
At the highest point on the grounds of the Oklahoma City National Memorial stands a very special tree. Special because it resides in the hearts of everyone impacted by a senseless act of violence that struck the Alfred P. Murrah Building and the heart of Oklahoma City 21 years ago. This American elm has come to represent hope and healing and stands as a strong symbol, commemorating those who lost their life on that tragic day in April, 1995. This workshop will showcase the ongoing restoration and care of this tree that began in 1996.

Session C Workshops
C-1.
Guidelines for Proper Pruning
Dirk Dujesiefken, Institute of Arboriculture
Hamburg, Germany
Using the Hamburg Tree Pruning System as a guide, Dirk will provide information and insight about the proper pruning of older trees in parks and along the roadside.

C-2.
Cultivating Great Employees Through Successful Training Programs
(See description A-2)

C-3. (F-3 Repeat)
Abiotic Disorders Influence Tree Selection in the Great Plains*
Jason Griffin, Kansas State University
Haysville, KS
Abiotic disorders often send trees into a state of decline from which there is no recovery. This one way road to the compost heap is often referred to as the death spiral. As green industry professionals, you are routinely called upon to diagnose and cure tree problems that got their start as humble abiotic stressors such as drought, heat, cold, and poor soils. In this presentation. Jason will look at some of the more important abiotic disorders influencing plant health in our managed landscapes.

C-4.
Swiss Army Landscaping – Multi-use Plants to Connect People with Outdoor Spaces
(See description A-4)

C-5. (G-5 Repeat)
Managing Natural Resources in a National Park
Milton Haar, Badlands National Park
South Dakota
The rugged beauty of the Badlands draws visitors from around the world. These striking geologic deposits contain one of the world’s richest fossil beds for ancient mammals. The park’s 244,000 acres protect an expanse of mixed-grass prairie where bison, bighorn sheep, prairie dogs, and black-footed ferrets live today. Join Milton in this session to explore the fascinating geology, ecology, and history of Badlands National Park. Participants will learn about the goals and challenges faced by managers of natural resources and the methods they use to preserve one of “America’s Best Ideas”.

C-6.
Enacting a Municipal Street and Park Tree Ordinance
Bill Elmendorf, Penn State University
University Park, PA
In this session, Bill will introduce important tree ordinance considerations including police power, enabling legislation, and public participation in decision making. He will discuss common sections of street tree and park tree ordinances including the purpose and creation of tree commissions, hazardous/nuisance trees on public and private property, permits, violations and enforcement, arboricultural standards, and tree planting lists. A contrast between municipal street tree ordinances and other types of environmental ordinances also will be provided.

C-7. (G-7 Repeat)
Continuing Instructional Course for Pesticide Applicators**
Limit 50 per session
Mark Shour, Iowa State University,
Ames, Iowa
This workshop is required if you want two hours of approved instructional training credit toward pesticide applicator recertification at the 2016 STSC. The Iowa Department of Agriculture and Land Stewardship has approved the ISU Shade Tree Short Course for continuing instructional credit in categories 2, 3O, 3OT, and 10. Specific information will be presented on recognition of sensitive areas including groundwater and other non-target sites and organisms (pollinators) as potentially impacted by pesticide applications, drift, and runoff. Pesticide labels and restricted entry intervals also will be discussed. You also must attend one additional qualifying workshop (A-1, A-5, B-6, B-7, C-3, D-3, D-6, D-7, E-6, E-7, F-3, F-6, or G-6) to receive certification. **NOTE: Pesticide applicators wishing to recertify will be charged an additional $35 (see registration form).
**Session D Workshops**

**D-1.**
**The Cutting Edge of Landscape Roses**
David Zlesak, University of Wisconsin – River Falls
River Falls, WI
Spurred on by high consumer demand, significant changes are underway in the breeding, testing, production, distribution, and use of landscape roses. There also is an increasing push towards regional trialing and marketing of superior cultivars and greater commitment than ever to roses with truly superior disease resistance. In this session, David will highlight some of the newer, stronger-performing roses for our region.

**D-2. (F-2 Repeat)**
**ABC’s of Young and Small Tree Pruning**
Chris Luley, Urban Forestry LLC
Naples, NY
Pruning young trees is arguably the most important tree care management treatment for extending the lifespan of a tree, yet pruning often is ignored until serious defects have developed. In this presentation, Chris will introduce a repeatable and easy-to-learn pruning method for landscape professionals. It uses an acronym system (the ABC’s) to lead you through the pruning process in a way that eliminates defects, creates good branch structure, and is easy to remember.

**D-3.**
**Diagnosing Health Problems of Woody Plants* (See description A-5)**

**D-4. (E-4 Repeat)**
**Managing Urban Tree Stress…Start with the Soil**
KentHonl, Rainbow Treecare
Minnetonka, MN
The source of nearly all urban tree troubles can be traced back to soil condition. This workshop will help you recognize tree symptoms that are associated with soil problems. Kent will examine tools you can employ to improve soil conditions and enhance root growth in the urban environment. How to present plant health care services to the client and how to manage expectations before and after treatments also will be discussed.

**D-5.**
**Community Tree Inventory Data Demonstrates a Pressing Need to Diversify**
Matt Brewer, Iowa Department of Natural Resources
Iowa City, IA
In this workshop, Matt will present and discuss eight years of data from public tree inventories in Iowa communities and share some rather startling results. And the results are consistent with what many have suspected for years...that certain tree species and genera are over-represented. Come to this session and learn how tree inventory data can be used to improve our community forest resource in the near term and down the road.

**D-6. (E-6 Repeat)**
**A Decade of Progress on Sustainable Management Strategies for Emerald Ash Borer* (See description A-5)**
Leah Bauer, USDA Forest Service
Lansing, MI
The invasive emerald ash borer (EAB) has killed millions of ash trees in North America while in its native range, EAB is considered only a minor pest of ash due to co-evolved resistance in Asian ash species and natural enemies. In this workshop, Leah will review the impact of EAB in eastern North America along with efforts to develop effective management tools and strategies including insecticides, biological controls, and host resistance.

**Session E Workshops**

**E-1.**
**A Candid Conversation on Garden Maintenance (See description B-1)**

**E-2. (G-2 Repeat)**
**Assessing Trees for Decay**
Chris Luley, Urban Forestry LLC
Naples, NY
Arborist are required to assess trees for decay as part of their daily work, and TRAQ-qualified arborists are required to determine tree stability when decay is present and make subsequent judgments about tree failure potential. Yet, the arboricultural industry has not created an acceptable process for assessing trees for decay. In this presentation, Chris will provide arborists with a process to assess trees for decay presence and severity and how to make judgments about tree stability.

**E-4.**
**Managing Urban Tree Stress…Start with the Soil (See description D-4)**

**E-5.**
**Creating a Community Tree Plan**
Bill Elmendorf, Penn State University
University Park, PA
In this session, Bill will discuss common difficulties encountered by community tree programs and introduce the concept of goal-oriented management. Important chapters or objectives of community tree plans will be introduced including administration, managing tree risk, tree evaluation and removal, design, tree planting and maintenance, and public education and support.
E-6.  
A Decade of Progress on Sustainable Management Strategies for Emerald Ash Borer*  
(See description D-6)

E-7.  
Economically Important Scale Insects of Iowa*  
Ryan Krull, Iowa Department of Agriculture and Land Stewardship  
Des Moines, IA  
Can you identify the most economically important common scale insects of Iowa? Are you properly timing your treatments? In this session Ryan will cover the basics of scale identification, life-cycles, and discuss control measures for several important scales in Iowa landscapes.

Session F Workshops

F-1.  
Ash – The Morning After  
Guy Sternberg, Starhill Forest Arboretum  
Petersburg, IL  
Now that EAB has arrived, what should you think about besides making baseball bats from your former community forest? Guy recommends that we save worthy ash trees first, and then restore the newly opened landscape with a mix of trees that offer diversity, site suitability, and adaptability to our changing climate.

F-2.  
ABC’s of Young and Small Tree Pruning  
(See description D-2)

F-3.  
Abiotic Disorders Influence Tree Selection in the Great Plains*  
(See description C-3)

F-4.  (G-4 Repeat)  
Native Trees for the Great Plains  
Graham Herbst, Nebraska Forest Service  
Omaha, NE  
In this workshop Graham will define the term “native” and its meaning in different contexts in order to provide a more comprehensive overview of trees that should be used more widely throughout the Great Plains. The strengths and limitations of each tree will be covered.

F-5.  
Preserving Trees in Development Projects  
Bill Elmendorf, Penn State University  
University Park, PA  
In this session Bill will discuss the three phases of tree preservation that occur during development/pre-construction, construction, and post-construction. Tools and techniques including tree assessment, tree protection zones, tree preservation plans, as well as engineering and arboricultural practices will be introduced. The session will conclude with an overview of how preservation techniques can be integrated into formal public policy.

F-6.  
Turfgrass IPM for Certified Pesticide Applicators (Category 3OT)*  
(See description B-6)

F-7.  
Collections Management for the Small Garden  
Alana McKeen, Starhill Forest Arboretum  
Petersburg, IL  
Join Alana for this workshop and learn from 40 years of experience in “do-it-yourself” botanical collections management, without benefit of specialized state-of-the-art software and a full-time plant recorder! Alana will share the who, what, when, where, and why, and how she collects data about plants grown at Starhill Forest Arboretum, including labeling in the field, managing the data, mapping, and more. Are you interested in documenting your own plant collections? If so, you need to sign up for this workshop!

Session G Workshops

G-1.  
The Plant Introduction Pipeline: Current Trends from Breeding Through Marketing  
David Zlesak, University of Wisconsin – River Falls  
River Falls, WI  
Every new plant has a story about how it was developed and its journey into the marketplace. Unfortunately, it is becoming increasingly difficult to identify the strongest of the “newer” plant selections as competing introduction firms all tout their own exclusive plants. In this session David will highlight popular breeding priorities and methods, show how breeders typically connect their plants to the supply chain, and discuss some of the impacts of exclusive branding efforts. Understanding the forces driving the plant introduction pipeline can help landscape professionals make better purchasing decisions.

G-2.  
Assessing Trees for Decay  
(See description E-2)

*Qualifying Pesticide Applicator Workshops  
**Required Pesticide Applicator Workshop
G-3. The Native Oaks of Iowa
Guy Sternberg, Starhill Forest Arboretum
Petersburg, IL
In this session, Guy (founding president of the International Oak Society) will introduce and describe all of the native oaks of Iowa, how to recognize them, and how to incorporate them into the landscape, either as existing trees or for new plantings.

G-4. Native Trees for the Great Plains
(See description F-4)

G-5. Managing Natural Resources in a National Park
(See description C-5)

G-6. Disease Management on Conifers*
Kent Honl, Rainbow Treecare
Minnetonka, MN
In this workshop Kent will take a systematic approach to diagnosing and treating the main conifer stressors found in the upper Midwest including insects, mites, fungi, and abiotic factors. Integrated pest management strategies will be introduced and considered as ways to help increase your effectiveness in dealing with conifer problems.

G-7. Continuing Instructional Course for Pesticide Applicators**
(See description C-7)

PESTICIDE CONTINUING EDUCATION
The Iowa Pesticide Act provides two options for renewing commercial pesticide applicator certification. Commercial and public applicators may choose to renew their certification by testing once every three years or by attending approved instructional training each year.

Recertification by training requires participation in two hours of approved instructional training each year, in each category in which an applicator is certified. Some programs may be approved for more than one category and simultaneous credit hours are possible. Applicators will not be allowed to make up hours that they missed in a previous year, nor will they be allowed to carry forward excess credit hours.

The Iowa Department of Agriculture and Land Stewardship approved the ISU Shade Tree Short Course for two hours of recertification credit in categories 2, 3O, 3OT, and 10.

To receive recertification credit, an applicator must attend workshops as outlined below. Requirements vary by category.

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<th>To Recertify in Category</th>
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“Pest Management” Workshops:

A-1 Top 10 Nasty Insect Pests of Trees and Shrubs and How to Deal With Them (Potter)
A-5 or D-3 Diagnosing Health Problems of Woody Plants (Jesse, Rodriguez-Salamanca, and Vitosh)
B-6 or F-6 Turfgrass IPM for Certified Pesticide Applicators (Category 3OT) (Adams)
B-7 or D-7 Oak Wilt: A Manageable Disease (Juzwik)
C-3 or F-3 Abiotic Disorders Influence Tree Selection in the Great Plains (Griffin)
D-6 or E-6 A Decade of Progress on Sustainable Management Strategies for Emerald Ash Borer (Bauer)
E-7 Economically Important Scale Insects of Iowa (Krull)
G-6 Disease Management on Conifers (Honl)

*Qualifying Pesticide Applicator Workshops
**Required Pesticide Applicator Workshop
Method of Payment

- Check – Make checks payable to Iowa State University
- Visa
- Mastercard
- Discover

Cardholder Name: __________________________ Signature: __________________________
Card Number: _____________ Exp. Date: _____________ 3-Digit CVC: _____________

Purchase Order (please attach a copy)

P.O. #: __________________________
Billing Address: __________________________
Organization: __________________________
In Care Of / Attention: __________________________
Address: __________________________

CITY/STATE/ZIP: __________________________ IOWA COUNTY: __________________________

Select your workshop choices on the other side of this form!
For each session A through G, rank your choices 1 to 7 in the spaces provided. Remember, some workshops run two hours. We will attempt to place you in your first choice, although some of the workshops have limited enrollment.
For every workshop session A through G, mark your first (1) through seventh (7) choice in the spaces provided.

**Wednesday, February 24, 2016**

**Session A Workshops**, 1:00-2:00 p.m.
- [ ] A-1. Top 10 Nasty Insect Pests of Trees and Shrubs and How to Deal With Them*
- [ ] A-2. Cultivating Great Employees Through Successful Training Programs
- [ ] A-3. Plant Health Care and Importance of Woundwood, Callus, and CODIT *(two-hour session, do not select in session B)*
- [ ] A-4. Swiss Army Landscaping – Multi-use Plants to Connect People with Outdoor Spaces
- [ ] A-5. Diagnosing Health Problems of Woody Plants* *(two-hour session, do not select in session B)* – Limit 30
- [ ] A-6. Perennial Plant Communities – The Know Maintenance Approach
- [ ] A-7. Renovating the Unseen…An Introduction to Root-zone Excavation

**Session B Workshops**, 2:15-3:15 p.m.
- [ ] B-1. A Candid Conversation on Garden Maintenance
- [ ] B-2. Managing Ancient and Historic Trees
- [ ] B-4. Good Neighbors
- [ ] B-6. Turfgrass IPM for Certified Pesticide Applicators (Category 3OT)*
- [ ] B-7. Oak Wilt: A Manageable Disease*– Limit 40
- [ ] B-8. Oklahoma City’s Survivor Tree

**Session C Workshops**, 4:00-5:00 p.m.
- [ ] C-1. Guidelines for Proper Pruning
- [ ] C-2. Cultivating Great Employees Through Successful Training Programs
- [ ] C-3. Abiotic Disorders Influence Tree Selection in the Great Plains*
- [ ] C-4. Swiss Army Landscaping – Multi-use Plants to Connect People with Outdoor Spaces
- [ ] C-5. Managing Natural Resources in a National Park
- [ ] C-6. Enacting a Municipal Street and Park Tree Ordinance
- [ ] C-7. Continuing Instructional Course for Pesticide Applicators** – Limit 50

**Thursday, February 25, 2016**

**Session D Workshops**, 8:30-9:30 a.m.
- [ ] D-1. The Cutting Edge of Landscape Roses
- [ ] D-2. ABCs of Young and Small Tree Pruning
- [ ] D-3. Diagnosing Health Problems of Woody Plants* *(two-hour session, do not select in session E)* – Limit 30
- [ ] D-4. Managing Urban Tree Stress…Start with the Soil
- [ ] D-5. Community Tree Inventory Data Demonstrates a Pressing Need to Diversify
- [ ] D-6. A Decade of Progress on Sustainable Management Strategies for Emerald Ash Borer*
- [ ] D-7. Oak Wilt: A Manageable Disease*– Limit 40
- [ ] D-8. Oklahoma City’s Survivor Tree

**Session E Workshops**, 9:45-10:45 a.m.
- [ ] E-1. A Candid Conversation on Garden Maintenance
- [ ] E-2. Assessing Trees for Decay
- [ ] E-4. Managing Urban Tree Stress…Start with the Soil
- [ ] E-5. Creating a Community Tree Plan
- [ ] E-6. A Decade of Progress on Sustainable Management Strategies for Emerald Ash Borer*
- [ ] E-7. Economically Important Scale Insects of Iowa*

**Session F Workshops**, 11:00-12:00 p.m. (Noon)
- [ ] F-1. Ash – The Morning After
- [ ] F-2. ABCs of Young and Small Tree Pruning
- [ ] F-3. Abiotic Disorders Influence Tree Selection in the Great Plains*
- [ ] F-4. Native Trees for the Great Plains
- [ ] F-5. Preserving Trees in Development Projects
- [ ] F-6. Turfgrass IPM for Certified Pesticide Applicators (Category 3OT)*
- [ ] F-7. Collections Management for the Small Garden

**Session G Workshops**, 1:15-2:15 p.m.
- [ ] G-1. The Plant Introduction Pipeline: Current Trends from Breeding Through Marketing
- [ ] G-2. Assessing Trees for Decay
- [ ] G-3. The Native Oaks of Iowa
- [ ] G-4. Native Trees for the Great Plains
- [ ] G-5. Managing Natural Resources in a National Park
- [ ] G-6. Disease Management on Conifers*
- [ ] G-7. Continuing Instructional Course for Pesticide Applicators** – Limit 50

*Qualifying Pesticide Applicator Workshops
**Required Pesticide Applicator Workshop
It's Easy to Register
Select from these registration options: register online at www.cpm.iastate.edu/shadetree, mail, or fax.

Change in Plans
If you cannot attend the Short Course you may send a substitute (please let us know in advance who will be substituting). If you cancel your registration on or before February 19, 2016, your registration fee will be refunded less a $20 processing charge. No refunds will be made after February 19, 2016.

Continuing Education Credit
Upon completion of the Short Course, you will qualify for 1.1 CEUs (Continuing Education Units). The fee for ISU CEUs is $25 (see registration form).

Travel
Centrally located in the Midwest, Ames is easily accessible by transcontinental U.S. Highways 30 and 69, as well as Interstate 35. The Des Moines International Airport is located 40 minutes south of Ames and is served by major airlines. Major car rental agencies maintain offices in the airport.

Directions and Parking
The Scheman Building is located in the Iowa State Center on the Iowa State University campus. From Interstate 35, take U.S. Highway 30 west into Ames. Take the University Boulevard exit and go north past Jack Trice Stadium. The Scheman Building is located between Hilton Coliseum and C.Y. Stephens Auditorium. Free parking is available adjacent to the Scheman Building.

Further Information
For questions about program content, call Jeff Iles (515) 294-3718. For registration questions, contact Registration Services at (515) 294-6222 or email registrations@iastate.edu

Tax Deduction
The expense of continuing education, when taken to maintain and improve professional skills, is tax deductible. Contact your accountant for details.

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