

51st Annual
**MINNESOTA
SHADE TREE
SHORT COURSE**



A two-day course for everyone involved in urban forestry and arboriculture.
ISA Certified Arborist CEUs are available for most sessions.

March 12-13, 2013

Bethel University, Arden Hills, Minnesota

Program Partners:

College of Food, Agricultural and Natural Resource Sciences, University of Minnesota
Department of Forest Resources, University of Minnesota
Minnesota Shade Tree Advisory Committee
Minnesota Department of Agriculture
Minnesota Department of Natural Resources
Minnesota Department of Transportation
Minnesota Society of Arboriculture
Minnesota Tree Care Advisor Program
University of Minnesota Extension

Ensuring Tree Health Since 1963

www.cce.umn.edu/shadetree

UNIVERSITY OF MINNESOTA
Driven to DiscoverSM



Changing Climates – Challenged Communities

No one can logically deny that the world's climates are changing at a rate never seen before, including our own plant and people communities of Minnesota. We may not all agree on the cause or causes, but everything that scientists have predicted for the past two to three decades is coming true: alternating flooding events and widespread drought, winter and summer extremes, more frequent and more violent storm events, frequent and catastrophic wildfires, migrating hardiness zones, and global warming.

While the Minnesota Shade Tree Short Course never claims to have all the answers to nature's wrath, we strive to arm you with the next best thing: information to make the best decisions for your plant and/or people communities. For 2013, our

conference theme is Changing Climates and Challenged Communities, with a focus on preparing communities for climate change by prioritizing strategies to keep our urban forests as healthy, resilient, and safe as possible. Please join us to learn, share experiences and information, and consider how we all must change and evolve with the changes our urban forests are being forced to deal with on short notice.

Gary Johnson

Minnesota Shade Tree Short Course, Chairperson
Department of Forest Resources
College of Food, Agricultural and Natural Resource Sciences
University of Minnesota

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Bethel University

Bethel University offers beautiful facilities inside and out with free and convenient parking in the West Parking Lot and a spacious cafeteria. The campus is located in Arden Hills, a short distance from Snelling Avenue and I-694, (see map on page 17) with an exceptional and varied landscape for outdoor sessions. Make sure that you dress appropriately for the weather if you will be attending the breakout sessions with outdoor activities. Bethel University is a nonsmoking campus (smoking allowed in designated outdoor areas). The program begins at 7:30 a.m. on Tuesday and concludes at 3:45 p.m. on Wednesday.

Minnesota Shade Tree Short Course Steering Committee

Gary Johnson, Chair of the Minnesota Shade Tree Short Course, Department of Forest Resources, College of Food, Agricultural and Natural Resource Sciences, University of Minnesota

Mike Bahe, Municipal Arborist, City of Hutchinson

David Hanson, Minnesota Department of Transportation

Ben Johnson, Commercial Arborist, Rainbow Treecare

Jill Johnson, Coordinator, Midwest Center for Urban Forestry, U.S. Forest Service

Manuel Jordan, Owner, Heritage Shade Tree Consultants

Russell Kennedy, Commercial Arborist, Rainbow Treecare

Jeff Loso, City of Bloomington Municipal Forestry

Jean Mouelle, Department of Natural Resources

Eric North, Department of Forest Resources, College of Food, Agricultural and Natural Resource Sciences, University of Minnesota

Gail Nozal, Consulting Urban Forestry, S&S Tree and Horticultural Specialists

Josh Plunkett, Minnesota Department of Agriculture

Philip Potyondy, Urban Forester/GIS Analyst, Minneapolis Park and Recreation Board Forestry Division

Mark Schnobrich, Municipal Forester, City of Hutchinson

Mark Stennes, Commercial Arborist, S&S Tree and Horticultural Specialists

Eugene Anderson, College of Continuing Education, University of Minnesota

Heather Dorr, College of Continuing Education, University of Minnesota

Emily Strong, College of Continuing Education, University of Minnesota

Certification and Credit

- Certified tree inspectors will be recertified for 2013 by attending the entire short course.
- ISA CEUs will be given for most sessions.

Please Note:

- Recertification for pesticide applicators is not available at this workshop.
- New Tree Inspector classes and testing are not available at this workshop.

Exhibits

Commercial and agency exhibits will be available each day. Everyone is invited to stop by and exchange information at booths located throughout the center. Exhibit space is coordinated by Ben Johnson, who can be reached by phone – 952-252-0527.

Tree Inspector Certification and Information

For questions about Tree Inspector status, contact:

Tami Brue

Minnesota Department of Natural Resources

651-259-5286

tami.brue@state.mn.us

For questions about Tree Inspector training, contact:

Sean Peterson

Department of Forest Resources

College of Food, Agricultural and Natural Resource Sciences

University of Minnesota

612-624-4261

pete7795@umn.edu

Registration Questions

612-625-2900

For More Information

Emily Strong

University of Minnesota

612-624-3492

cceconf3@umn.edu

MSA (Minnesota Society of Arboriculture) Winter Picnic

The Tuesday business meeting will begin at 4:30 p.m., followed by a picnic at 5:30 p.m. The picnic offers great food and is an opportunity to network with speakers and participants. Free to Shade Tree Short Course participants. Maps provided at registration desk.

Location: Como Park Clubhouse

CONFERENCE AT A GLANCE

General Sessions (in order of presentation)

The general sessions and track menus listed below enable you to choose sessions of interest from the many that are offered during the conference. Many courses provide information pertaining to multiple tracks. You do not have to stay within a track. Feel free to select sessions among any of the tracks that appeal to you.

- **GSI: The Changing Urban Landscape**

Dave Nowak, U.S. Forest Service

- **GSII: Lessons Learned From Sandy**

Jeremy Barrick, Deputy Chief of Forestry, Horticulture, and Natural Resources, City of New York, Parks and Recreation

- **GSIII: In the Hot Seat: Forecasts of Future Threats to Minnesota's Urban Forests**

Rob Venette, Research Biologist, Northern Research Station, USDA Forest Service

- **GSIV: What Have We Learned About EAB from Our Colleagues Out East?**

Jim Zwack, The Davey Institute

- **GSV: Tree Selection in a Changing Climate**

Bert Cregg, Associate Professor, Michigan State University

- **GSVI: Didn't You Hear? We Had a Tornado!**

Ralph Sievert, Director of Forestry, Minneapolis Park and Recreation Board

Concurrent Sessions (in alphabetical order)

Introductory

Introductory sessions are most valuable for people just entering or re-entering the fields of arboriculture, urban forestry, or urban natural resource management. These sessions provide a sound foundation for understanding tree biology, tree identification, diagnosis of problems, soil science, and plant maintenance.

- **Applied Tree Biology**

Doug Courneya, Rochester Community and Technical College

- **Diagnosing Tree Diseases**

Michelle Grabowski, University of Minnesota

- **Developing Winner Trees: How Well Are You Doing?**

Craig Pinkalla, Minneapolis Park and Recreation Board

- **Growing Grapevines in the Landscape**

Katie Cook, University of Minnesota Extension

- **Introduction to Urban Soils**

Peter Bierman, University of Minnesota

- **Romancing the Stone Fruits, Pomes, and Berries**

Rebecca Koetter, Sweetscapes

- **Shade Tolerant Plants for the Changing Landscape**

Shirley Mah Kooyman, Natural Shore Technologies

- **Shrub Selection and Care for Tough, Droughty Sites**

Kent Honl, Rainbow Treecare

- **Tree Identification: As the Climate Shifts, Prepare to Shift Your Identification Skills!**

Dave Hanson, Minnesota Department of Transportation

Best Sessions for Tree Inspectors

Tree Inspectors are required to attend six sessions each year to retain their certification status. All of these sessions are particularly valuable for tree inspectors and will supply the most current information on tree selection, diagnosis of the most common disease and insect pest problems, and prepare Tree Inspectors for the droughts and floods that visit parts of Minnesota every year.

All general and concurrent sessions are applicable for tree inspectors this year.

Technical

These courses go beyond the introductory courses in tree identification and problem diagnosis. They are all more technical and assume that the attendees have the basic experience and knowledge to appreciate the depth of the topics. In other words, they're more challenging and require some background to fully appreciate them...and they're worth it.

- **Aesthetic Mitigation on Utility Rights of Way Projects**

Bill Conn, Vermont Electric Company (VELCO)

- **CBP 101: An Introduction to the Customs and Border Protection Mission**

Barbara Hassler, U.S. Customs and Border Protection

- **Climate Change and Its Impacts on Landscape Insects**

Jeff Hahn, University of Minnesota Extension

- **Common Insect, Disease, and Physiological Disorders of Fruit Trees in Minnesota**

Thaddeus McCamant, Central Lakes College

- **Decline Diseases of Trees**

Glen Stanosz, University of Wisconsin

- **Healthy Watersheds, Healthy Communities: Urban Water Resources and the Connection to Trees**

John Bilotta, University of Minnesota Extension and Minnesota Sea Grant (also, Community Forestry Session)

- **Is It Oak Wilt or Bur Oak Blight?**

Ryan Blaedow, Minnesota Department of Natural Resources

- **The Light Rail Corridor: Managing Water and Healthy Trees**

Mark Doneux, Capital Region Watershed District

- **Lightning Round Two: Research Underway to Help Manage Urban Forests**

various speakers

- **Maple Tree Soil Application Research Project**

Yvonne Boldt, Providence Academy and Plant Health Doctors (also, Community Forestry Session)

- **Minnesota Tree Law**
Lorrie Stromme (also, Community Forestry Session)
- **Mountain Pine Beetle in Minnesota?**
Brian Aukema, University of Minnesota
- **The Progressive Approach: Functional Gear and Innovative Work Positioning Concepts for Production Climbers**
Taylor Hamel, DMM, New England Ropes, Treemagineers, Teufelberger
- **Pruning for Structure**
Jeff Hafner, Rainbow Treecare
- **Successful Strategies for Today's Municipal Forester**
Elizabeth Walker, Terra Firma Consulting (also, Community Forestry Session)
- **Surprise! Trees Do Recover**
Tom Dunlap
- **Tree Care and the Law: What You Need to Know to Stay Out of the Courtroom**
Dana Gerber, Brown and Carlson, P.A.
- **Using Partnerships as an Integrated Vegetation Management (IVM) Tool**
Bill Conn, Vermont Electric Company (VELCO)

Community Forestry Sessions

Community forestry sessions are particularly valuable to those urban foresters that work in or with municipalities, non-profit organizations, or agencies... the groups that work most directly with the public. These sessions offer a different perspective than the technical sessions and introduce the human factor into managing urban forests.

- **Branching Out with Volunteers: Strategies to Engage a Natural Resource**
Terry Straub, University of Minnesota Extension, Master Gardener Program – Hennepin County
- **Healthy Watersheds, Healthy Communities: Urban Water Resources and the Connection to Trees**
John Bilotta, University of Minnesota Extension and Minnesota Sea Grant (also Technical Session)
- **Lightning Round One: Using Technology to Advance Urban Forestry Programs**
various speakers (also, Advanced Technical Session)
- **Maple Tree Soil Application Research Project**
Yvonne Boldt, Providence Academy and Plant Health Doctors (also, Technical Session)
- **Minnesota Tree Law**
Lorrie Stromme (also, Technical Session)
- **Romancing the Stone Fruits, Pomes, and Berries**
Rebecca Koetter, Sweetescapes (also, Introductory Session)
- **Saving Energy With Community Trees in Minnesota**
Philip Potyondy, Minneapolis Park and Recreation Board (also, Advanced Technical Session)
- **Successful Strategies for Today's Municipal Forester**
Elizabeth Walker, Terra Firma Consulting (also, Technical Session)
- **What are Tree City USA, Tree Line USA, and Tree Campus USA?**
Jennifer Teegarden, Department of Natural Resources

Advanced Technical Sessions

The advanced technical sessions are just that: advanced, technical, and challenging. These sessions require that attendees have a strong background in the science and technology of urban forestry and arboriculture. Not for the weak-hearted, but guaranteed to stretch your brains and get you thinking...hard!

- **Advanced Plant Health Care Concepts and Techniques**
Jim Zwack, The Davey Institute
- **i-Tree Version 5.0: Tools for Advancing Urban Forest Management**
Al Zelaya, The Davey Institute
- **Lightning Round One: Using Technology to Advance Urban Forestry Programs**
various speakers (also, Community Forestry Session)
- **Non-Traditional Methods of Tree Valuation**
Manuel Jordan, Heritage Shade Tree Consultants
- **Reducing Infrastructure Damage by Tree Roots: An Overview of Strategies**
Larry Costello, Oracle Oak LLC
- **Saving Energy with Community Trees in Minnesota**
Philip Potyondy, Minneapolis Park and Recreation Board (also, Community Forestry Session)
- **Stockholm Tree Trench Method for Stormwater (STTeM)**
Fred Rozumalski, Barr Engineering Co.
- **Tree Risk Assessment: Incorporating the New BMP Into Your Practice**
Faith Appelquist, Tree Quality

Exhibit Area Mini-Sessions

These 15-20 minute classes will be offered in the exhibit area during the open hours.

Community Gravel Beds

We've expanded since last year. Learn about an affordable option for reforesting your community, which trees and shrubs perform best, and recovering pot-bound trees.

"Turning" Waste Wood Into Valued Wood

Watch a skilled craftsman turn a chunk of wood into a piece of art.

Saw Sharpening for the Thrifty Arborist

Portable Sawmills for Handling Your Ash, Walnut, and Maple

Accept it or Reject it?

Learn how to use the American Association of Nurserymen's Nursery Stock Standards and determine whether our nursery stock is acceptable or not.

Managing Japanese Beetles: What's Fact, Fiction, Possible?

Recognizing Imprelis® Damage to Trees

The STSC House of Horrors

New samples, videos, challenges, and (CEU) quizzes.

One-Day Workshops

Introduction to Tree Climbing

March 12, 2013—One-Day Workshop

This course will cover an introduction to different types of climbing equipment, its selection, and its proper usage. It will be a half day of in-class instruction and a half day of practical application. The workshop will include proper throwball installation, friction saver installation, single rope, and double rope techniques. There will be some tree climbing with an emphasis on proper safety techniques.

- Limited to 15 participants
- Six-hour workshop, lunch provided

Climbers assume ultimate responsibility for the condition of their gear. Rain or shine—barring steady rain, blizzard, or winds in excess of 25 m.p.h.

Equipment

Participants must have their own Personal Protective Equipment (PPE) and climbing gear. Please dress for work outdoors.

Location

Participants will check in at the Short Course registration in the Great Hall Foyer, at Bethel University. Then, participants will be transported to an off-site location for the workshop.

Pre-registration required, no onsite registration is available. No refunds will be issued.

Instructor

Jeff Loso, City of Bloomington Municipal Forestry

Minnesota Forest Pest First Detector Workshop

March 12, 2013—One-Day Workshop

(Separate Pre-Registration Required – See Information Below)

The Minnesota Forest Pest First Detectors training program is designed to help identify the occurrence of Emerald Ash Borer and other forest pests in Minnesota. First Detectors are the front line of defense against likely infestations. Meeting, working with, and educating the public about exotic forest pests are key activities of Forest Pest First Detectors.

- 8:00 a.m. Workshop check-in opens
- 8:15 a.m. Workshop program begins
- 2:45 p.m. Workshop program ends
- 3:00 p.m. OPTIONAL Tree Inspector Exam (second pre-registration required)

Register online at www.myminnesotawoods.umn.edu/forest-pest-first-detector. No onsite registrations accepted.

For more information about the Minnesota Forest Pest First Detector Workshop, contact Mary Kay Ferguson at 612-625-4271 or m-ferg@umn.edu.

INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) CONTINUING EDUCATION UNITS (CEUS)

ISA Certification Code Information

A	Certified Arborist	Bs	BCMA Science
T	Certified Tree Worker	Bp	BCMA Practice
M	Municipal	Bm	BCMA Management
U	Utility		

Attendance sheets will be offered immediately after each session. For more information regarding ISA CEUs, please visit www.isa-arbor.com/certification/ceus.aspx.

NOTE: list of approved ISA CEU sessions will be posted on the website at www.cce.umn.edu/shadetree.

REGISTRATION FEES

The early registration fee, received by February 26, is \$175 per person. The regular fee after February 26, and at the door is \$190 per person. The registration fee includes general session, breakouts, breaks, lunches, and handouts.

Student Rate

Student registration is \$40 per student.

To obtain the student rate, a statement from the student's academic adviser must accompany the registration form. The statement must confirm the student's current enrollment in a post-secondary, degree program, along with the institution's name, the adviser's name, and the adviser's signature.

Tree Board or Park Board Member Rate

Tree Board or Park Board member registration is \$95 per person.

To obtain the tree board/park board member rate, documentation from the city where the person is a member of the tree or park board must accompany the registration form.

Tree House of Horrors

2013 "Perennial" Favorites

Each year, the Tree House of Horrors displays the "worst of the worst," the "best of the best," and everything in between.

2013 features:

- The Tree Inspector "one-stop" with the recertification drop box
- An opportunity for 1.0 ISA CEU
- The Community Gravel Bed display—larger and even more information!
- Emerald Ash Borer detection tips
- Interactive tree-health computer "games"
- Short lessons from local tree health experts
- Firewood, disease, and damage identification
- Good trees/bad trees: using the American Nursery Standards to protect your investments
- Bad things that good people do to helpless trees

Stop by. Drink your coffee and eat your cookies while learning in a different, relaxed way.

The Tree House of Horrors is organized by:

Sean Peterson, Department of Forest Resources, University of Minnesota



MINNESOTA SHADE TREE SHORT COURSE – MARCH 12-13, 2013 PROGRAM

Tuesday, March 12, 2013

6:45 a.m.

Registration Begins – Benson Great Hall Foyer

7:30

Welcome and Opening Remarks

Gary Johnson, Department of Forest Resources, College of Food, Agricultural and Natural Resources Science, University of Minnesota

7:45

GSI: The Changing Urban Landscape

Dave Nowak, U.S. Forest Service

8:40

GSII: Lessons Learned From Sandy

Jeremy Barrick, Deputy Chief of Forestry, Horticulture, and Natural Resources, City of New York Parks and Recreation

9:35

GSIII: In the Hot Seat: Forecasts of Future Threats to Minnesota's Urban Forests

Rob Venette, Research Biologist, Northern Research Station, U.S. Forest Service

10:30-12:15 p.m.

Exhibits and Tree House of Horrors

11:00

Group 1 Lunch Break – Dining Center

11:20

Group 2 Lunch Break – Dining Center

11:45

Group 3 Lunch Break – Dining Center

12:15-1:00

CONCURRENT SESSIONS

Applied Tree Biology

Doug Courneya, Instructor, Rochester Community and Technical College

Introductory Session

Best for Tree Inspectors

Common Insect, Disease, and Physiological Disorders of Fruit Trees in Minnesota

Thaddeus McCamant, Specialty Crops Management Instructor, Central Lakes College

Technical Session

Best for Tree Inspectors

Developing Winner Trees: How Well Are You Doing?

Craig Pinkalla, Arborist, Minneapolis Park and Recreation Board

Introductory Session

Best for Tree Inspectors

Healthy Watersheds, Healthy Communities: Urban Water Resources and the Connection to Trees

John Bilotta, Extension Educator, Water Resources, University of Minnesota Extension and Minnesota Sea Grant Programs

Community Forestry Session

Technical Session

Best for Tree Inspectors

Saving Energy with Community Trees in Minnesota

Philip Potyondy, Sustainable Forestry Coordinator, Minneapolis Park and Recreation Board

Community Forestry Session

Advanced Technical Session

Best for Tree Inspectors

Shade Tolerant Plants for the Changing Landscape

Shirley Mah Kooyman, Botanist, Northern Shore Technologies

Introductory Session

Best for Tree Inspectors

Successful Strategies for Today's Municipal Forester

Elizabeth Walker, Community Forestry Consultant, Terra Firma Consulting

Community Forestry Session

Technical Session

Best for Tree Inspectors

Tree Risk Assessment: Incorporating the New BMP Into Your Practice

Faith Appelquist, Owner/President, Tree Quality

Advanced Technical Session

Best for Tree Inspectors

Using Partnerships as an Integrated Vegetation Management (IVM) Tool

Bill Conn, Utility Forester, Vermont Electric Power Company (VELCO)

Technical Session

Best for Tree Inspectors

Only offered one time.

What Are Tree City USA, Tree Line USA, and Tree Campus USA?

Jennifer Teegarden, Forestry Outreach Specialist, Minnesota Department of Natural Resources

Community Forestry Session

Best for Tree Inspectors

Only offered one time.

12:15-2:00

EXTENDED CONCURRENT SESSIONS

The Progressive Approach: Functional Gear and Innovative Work-Positioning Concepts for Production Climbers

Taylor L. Hamel, DMM, New England Ropes, Treemagineers, Teufelberger
Technical Session

Tree Identification: As the Climate Shifts, Prepare to Shift Your Identification Skills!

Dave Hanson, Invasive Species, Biocontrol Specialist, Minnesota Department of Transportation
Introductory Session
Best for Tree Inspectors

1:15-2:00

CONCURRENT SESSIONS

Diagnosing Tree Diseases

Michelle Grabowski, Associate Extension Professor, University of Minnesota Extension
Introductory Session
Best for Tree Inspectors

Growing Grapevines in the Landscape

Katie Cook, Enologist, University of Minnesota
Introductory Session

Is It Oak Wilt or Bur Oak Blight?

Ryan Blaedow, Forest Health Specialist, Minnesota Department of Natural Resources
Technical Session
Best for Tree Inspectors

Minnesota Tree Law

Lorrie Stromme
Community Forestry Session
Technical Session
Best for Tree Inspectors

Mountain Pine Beetle in Minnesota?

Brian Aukema, Assistant Professor of Forest Entomology, University of Minnesota
Technical Session
Best for Tree Inspectors

Pruning for Structure

Jeff Hafner, Climbing and Consulting Arborist, Rainbow Treecare
Technical Session
Best for Tree Inspectors

Romancing the Stone Fruits, Pomes, and Berries

Rebecca Koetter, Sweetscapes
Introductory Session
Community Forestry Session
Best for Tree Inspectors

Shrub Selection and Care for Tough, Droughty Sites

Kent Honl, Rainbow Treecare
Introductory Session
Best for Tree Inspectors

Stockholm Tree Trench Method for Stormwater (STTeM)

Fred Rozumalski, Landscape Architect/Ecologist, Barr Engineering Co.
Advanced Technical Session
Only offered one time
Best for Tree Inspectors

The Light Rail Corridor: Managing Water and Healthy Trees

Mark Doneux, Administrator, Capital Region Watershed District
Technical Session
Best for Tree Inspectors

2:00-2:45

EXHIBITS AND "MINI-SESSIONS"

Community Gravel Beds

"Turning" Waste Wood Into Valued Wood

Saw Sharpening for the Thrifty Arborist

Portable Sawmills for Handling Your Ash, Walnut, and Maple

Accept It Or Reject It?

Managing Japanese Beetles: What's Fact, Fiction, Possible?

Recognizing Imprelis® Damage to Trees

The STSC House of Horrors

2:45-3:45

CONCURRENT SESSIONS

Branching Out With Volunteers: Strategies to Engage a Natural Resource

Terry Straub, Coordinator, University of Minnesota Extension Master Gardener Program—Hennepin County
Community Forestry Session
Best for Tree Inspectors

CBP 101: An Introduction to the Customs and Border Protection Mission

Barbara Hassler, Assistant Area Port Director—Trade, U.S. Customs and Border Protection
Technical Session

Climate Change and Its Impacts on Landscape Insects

Jeff Hahn, University of Minnesota Extension
Technical Session
Best for Tree Inspectors

Decline Diseases of Trees

Glen Stanosz, Professor of Tree and Forest Health, University of Wisconsin
Technical Session
Best for Tree Inspectors

Tuesday, March 12, 2013 (Continued)

i-Tree Version 5.0: Tools for Advancing Urban Forest Management

Al Zelaya, Urban Forester, The Davey Institute

Advanced Technical Session

Best for Tree Inspectors

Introduction to Urban Soils

Peter Bierman, Department of Soil, Water, and Climate, University of Minnesota (retired)

Introductory Session

Best for Tree Inspectors

Lightning Round One: Using Technology to Advance Urban Forestry Programs

Various Speakers

Community Forestry Session

Advanced Technical Session

Best for Tree Inspectors

Only offered one time.

Maple Tree Soil Application Research Project

Yvonne Boldt, Providence Academy and Plant Health Doctors

Community Forestry Session

Technical Session

Best for Tree Inspectors

Non-Traditional Methods of Tree Valuation

Manuel Jordan, Heritage Shade Tree Consultants

Advanced Technical Session

Best for Tree Inspectors

Reducing Infrastructure Damage by Tree Roots: An Overview of Strategies

Larry Costello, Oracle Oak LLC

Advanced Technical Session

Best for Tree Inspectors

Surprise! Trees Do Recover

Tom Dunlap, Arborist

Technical Session

Best for Tree Inspectors

Tree Care and the Law: What You Need to Know to Stay Out of the Courtroom

Dana Gerber, Attorney at Law, Brown and Carlson, P.A.

Technical Session

Best for Tree Inspectors

3:45

Adjourn

4:30

Minnesota Society of Arboriculture (MSA) Business Meeting – Como Park

5:30

MSA Winter Picnic – Como Park (food and drink compliments of MSA)

Wednesday, March 13, 2013

7:45 a.m.

GSIV: What Have We Learned About EAB From Our Colleagues Out East?

Jim Zwack, The Davey Institute

8:40

GSV: Tree Selection in a Changing Climate

Bert Cregg, Associate Professor, Michigan State University

9:35

GSVI: Didn't You Hear? We Had a Tornado!

Ralph Sievert, Director of Forestry, Minneapolis Park and Recreation Board

10:30-12:15 p.m.

Exhibits and Tree House of Horrors

11:00

Group 1 Lunch Break – Dining Center

11:20

Group 2 Lunch Break – Dining Center

11:45

Group 3 Lunch Break – Dining Center

12:15-1:00

CONCURRENT SESSIONS

Advanced Plant Health Care Concepts and Techniques

Jim Zwack, The Davey Institute

Advanced Technical Session

Best for Tree Inspectors

Only offered one time.

Common Insect, Disease, and Physiological Disorders of Fruit Trees in Minnesota

Thaddeus McCamant, Specialty Crops Management Instructor, Central Lakes College

Technical Session

Best for Tree Inspectors

Healthy Watersheds, Healthy Communities: Urban Water Resources and the Connection to Trees

John Bilotta, Extension Educator–Water Resources, University of Minnesota Extension and Minnesota Sea Grant Programs

Community Forestry Session

Technical Session

Best for Tree Inspectors

Introduction to Urban Soils

Peter Bierman, Department of Soil, Water, and Climate,
University of Minnesota (retired)

Introductory Session

Best for Tree Inspectors

Is It Oak Wilt or Bur Oak Blight?

Ryan Blaedow, Forest Health Specialist, Minnesota Department
of Natural Resources

Technical Session

Best for Tree Inspectors

Non-Traditional Methods of Tree Valuation

Manuel Jordan, Heritage Shade Tree Consultants

Advanced Technical Session

Best for Tree Inspectors

Romancing the Stone Fruits, Pomes, and Berries

Rebecca Koetter, Sweetescapes

Introductory Session

Community Forestry Session

Best for Tree Inspectors

Shade Tolerant Plants for the Changing Landscape

Shirley Mah Kooyman, Botanist, Northern Shore Technologies

Introductory Session

Best for Tree Inspectors

Shrub Selection and Care for Tough, Droughty Sites

Kent Honl, Rainbow Treecare

Introductory Session

Best for Tree Inspectors

12:15-2:00

EXTENDED CONCURRENT SESSIONS

The Progressive Approach: Functional Gear and Innovative Work-Positioning Concepts for Production Climbers

Taylor L. Hamel, DMM, New England Ropes, Treemagineers,
Teufelberger

Technical Session

Tree Identification: As the Climate Shifts, Prepare to Shift Your Identification Skills!

Dave Hanson, Invasive Species, Biocontrol Specialist, Minnesota
Department of Transportation

Introductory Session

Best for Tree Inspectors

1:15-2:00

CONCURRENT SESSIONS

Aesthetic Mitigation on Utility Rights-of-Way Projects

Bill Conn, Utility Forester, Vermont Electric Power Company

Technical Session

Best for Tree Inspectors

Only offered one time.

Branching Out With Volunteers: Strategies to Engage a Natural Resource

Terry Straub, Coordinator, University of Minnesota Extension

Master Gardener Program—Hennepin County

Community Forestry Session

Best for Tree Inspectors

CBP 101: An Introduction to the Customs and Border Protection Mission

Barbara Hassler, Assistant Area Port Director—Trade,
U.S. Customs and Border Protection

Technical Session

Diagnosing Tree Diseases

Michelle Grabowski, Associate Extension Professor, University
of Minnesota Extension

Introductory Session

Best for Tree Inspectors

Growing Grapevines in the Landscape

Katie Cook, Enologist, University of Minnesota

Introductory Session

Pruning for Structure

Jeff Hafner, Climbing and Consulting Arborist, Rainbow Treecare

Technical Session

Best for Tree Inspectors

Reducing Infrastructure Damage by Tree Roots: An Overview of Strategies

Larry Costello, Oracle Oak LLC

Advanced Technical Session

Best for Tree Inspectors

Saving Energy With Community Trees in Minnesota

Philip Potyondy, Sustainable Forestry Coordinator, Minneapolis
Park and Recreation Board

Community Forestry Session

Advanced Technical Session

Best for Tree Inspectors

Successful Strategies for Today's Municipal Forester

Elizabeth Walker, Terra Firma Consulting

Community Forestry Session

Technical Session

Best for Tree Inspectors

The Light Rail Corridor: Managing Water and Healthy Trees

Mark Doneux, Administrator, Capital Region Watershed District

Technical Session

Best for Tree Inspectors

2:00-2:45

EXHIBITS AND "MINI-SESSIONS"

Community Gravel Beds

"Turning" Waste Wood Into Valued Wood

Saw Sharpening for the Thrifty Arborist

Portable Sawmills for Handling Your Ash, Walnut, and Maple

Accept It Or Reject It?

Managing Japanese Beetles: What's Fact, Fiction, Possible?

Recognizing Imprelis® Damage to Trees

The STSC House of Horrors

2:05-2:35

Door Prizes

2:45-3:45

CONCURRENT SESSIONS

Applied Tree Biology

Doug Courneya, Instructor, Rochester Community and Technical College

Introductory Session

Best for Tree Inspectors

Climate Change and Its Impacts on Landscape Insects

Jeff Hahn, University of Minnesota Extension

Technical Session

Best for Tree Inspectors

Decline Diseases of Trees

Glen Stanosz, Professor of Tree and Forest Health, University of Wisconsin

Technical Session

Best for Tree Inspectors

Developing Winner Trees: How Well Are You Doing?

Craig Pinkalla, Arborist, Minneapolis Park and Recreation Board

Introductory Session

Best for Tree Inspectors

i-Tree Version 5.0: Tools for Advancing Urban Forest Management

Al Zelaya, Urban Forester, The Davey Institute

Advanced Technical Session

Best for Tree Inspectors

Lightning Round Two: Research Underway to Help Manage Urban Forests

Various Speakers

Technical Session

Best for Tree Inspectors

Only offered one time.

Maple Tree Soil Application Research Project

Yvonne Boldt, Providence Academy and Plant Health Doctors

Community Forestry Session

Technical Session

Minnesota Tree Law

Lorrie Stromme

Community Forestry Session

Technical Session

Best for Tree Inspectors

Mountain Pine Beetle in Minnesota?

Brian Aukema, Assistant Professor of Forest Entomology, University of Minnesota

Technical Session

Best for Tree Inspectors

Surprise! Trees Do Recover

Tom Dunlap, Arborist

Technical Session

Best for Tree Inspectors

Tree Care and the Law: What You Need to Know to Stay Out of the Courtroom

Dana Gerber, Attorney at Law, Brown and Carlson, P.A

Technical Session

Best for Tree Inspectors

Tree Risk Assessment: Incorporating the New BMP into your Practice

Faith Appelquist, Owner/President, Tree Quality

Advanced Technical Session

Best for Tree Inspectors

3:45

Adjourn

SPEAKERS

Faith Appelquist

Faith is the owner of Tree Quality. She provides services as a tree consultant and landscape designer. She earned her B.S. degree in nutrition from the University of Wisconsin-Madison and a landscape design degree from DCTC. She is a registered consulting arborist and BCMA- and TRACE-certified tree risk assessor.

Brian Aukema

Brian Aukema is an assistant professor of forest entomology and McKnight Land-Grant Professor at the University of Minnesota. He's worked with native and invasive forest insects throughout North America for the past 15 years, including a decade of work with mountain pine beetle in the Canadian northwest.

Jeremy Barrick

Jeremy is the deputy chief of forestry, horticulture and natural resources for the City of New York Parks and Recreation, assisting in the oversight of citywide urban forestry program. He is an ISA-board certified master arborist with a degree in urban and community forestry from the University of Minnesota.

Peter Bierman

Peter holds degrees in soil science and horticulture from the University of Minnesota. He has worked in research, extension, and teaching at The Ohio State University, the University of Alaska, and the University of Minnesota. His major focus has been in the area of soil fertility for horticultural crops.

John Bilotta

John is an extension educator with the Minnesota Extension and Minnesota Sea Grant Programs (12+ years), and leads the Northland NEMO Program (Nonpoint Education for Municipal Officials). John's efforts focus on providing effective education programs for local elected and appointed leaders to increase their knowledge and skills in water management and the connection to land-use decisions.

Ryan Blaedow

Ryan Blaedow is a forest health specialist with the Minnesota DNR in St. Paul. Originally from Wisconsin, Ryan obtained a B.S. in forestry from the University of Wisconsin-Stevens Point, a M.S. in tree physiology from Purdue University, and a Ph.D. in forest pathology from the University of Minnesota.

Yvonne Boldt

The Maple Tree Soil Application Research Project is a randomized-block experiment comparing five soil treatments: fertilizer, woodchips, fertilizer plus woodchips, and two types of compost on the establishment and growth of "Autumn Blaze" maple trees in an urban setting.

Bill Conn

Bill Conn has been in the tree care industry for the past 17 years. He has been employed with Vermont Electric Company (VELCO) for the past 7 years. He is a certified arborist, certified tree worker, certified utility specialist, and certified treecare safety professional. He has done numerous trainings and presentations on certified line clearance tree trimming, aerial rescue, aerial lift operation, chainsaw safety, and

use of LIDAR in IVM and landscape mitigation on ROW's. He serves on the board of directors for the New England Chapter of the International Society of Arboriculture as president elect. He has also been involved in the International Society of Arboriculture's International Tree Climbing Competition as a judge and technician and is currently the North American Tree Climbing Competition chairman. He also is a member of the ISA Certification Test Committee

Katie Cook

Originally from Minnesota, Katie spent many years traveling the wine world learning all she could about how to make wine. She has worked in wineries in Napa Valley, Argentina, France, and Australia. While in France, she received a masters-level diploma from the University of Burgundy in the field of enology. She has worked at the University of Minnesota since 2010, as the enology project leader.

Dr. Larry Costello

For 30 years, Larry Costello conducted an education and applied-research program in urban forestry and landscape horticulture as the environmental horticulture advisor in the San Francisco Bay Area for the University of California. He retired in January 2011, and now works as an arboricultural and horticultural consultant.

Doug Courneya

Doug Courneya has a B.S. in horticulture from North Dakota State University and an M.S. in horticulture from the University of Minnesota. Doug is an ISA-certified arborist with 26 years in the profession. He is currently an instructor at Rochester Community Technical College and does landscape maintenance in Rochester, MN.

Dr. Bert Cregg

Dr. Bert Cregg is an associate professor in the Department of Horticulture and the Department of Forestry at Michigan State University. Dr. Cregg conducts research and extension programs on management and physiology of trees in landscape, nursery, and Christmas tree systems.

Mark Doneux

Mark Doneux has 27 years of experience in the water resource field. He has been the administrator of the Capitol Region Watershed District (CRWD) since 2003. Mark oversees all CRWD operations, including 12 staff, and managing the \$6 million annual budget. The District also implements capital improvement projects and provides grant funding for water quality projects. Mark previously worked for the Washington Conservation District (MN) and in the private sector as a water resource scientist in Iowa and Wisconsin.

Tom Dunlap

Tom started dragging brush when he was 12 years old. He started climbing when he was 20...do the math, he's seen trees recover, even some that he damaged during the early "Evil Tom" part of his career. When he learned about modern arboriculture he turned his back on 'Evil Tom' and took up the ways of a progressive arborist. Currently, he works as the arborist crew leader at Biltmore Estate in Asheville, North Carolina—the cradle of American forestry.

Speakers (Continued)

Dana L. Gerber

Dana Gerber practices employment and insurance law. She provides legal advice to businesses including contract drafting and policy formation. She litigates in the areas of employment, workers' compensation defense, construction defect, mold/water intrusion, subrogation, workers' compensation "Coverage B"-employer liability, personal injury, commercial litigation, no-fault litigation, and insurance.

Michelle Grabowski

Michelle Grabowski is an Extension Educator specializing in plant pathology of horticultural crops at the University of Minnesota. Michelle shares information through online publications, hands-on workshops, classes, and other educational programs. Her work focuses on identification and management of current and emerging plant disease problems.

Jeff Hafner

Jeff Hafner is a climbing and consulting arborist at Rainbow TreeCare and has been working in the horticultural industry for more than 20 years. His passion for tree preservation has been the guiding force in his study of pruning and its effects on trees of all ages.

Jeff Hahn

Jeff has a master's degree in entomology and has worked for the University of Minnesota Extension for more than 28 years as an extension entomologist. Jeff specializes in urban insects, especially those found in landscapes, gardens, and structures. He disseminates insect information through educational programs, publications, diagnostic modules, and newsletters to many audiences, including professional applicators, master gardeners, and extension staff.

Taylor L. Hamel

Taylor Hamel is an ISA-certified arborist and contract climber based in St. Paul, Minnesota. He travels throughout the United States and Europe as a contract climber and workshop presenter. Taylor was the 2010 and 2012 Minnesota Tree Climbing Champion. Taylor is also involved in many other areas of tree work, including seed collection, leaf sampling, high-value tree preservation, product testing and validation, and video production.

Dave Hanson

As an urban forester at the University of Minnesota, Dave taught plant identification skills to any group that would listen including a classroom full of dendrology students. Now, as a vegetation management specialist with MnDOT, Dave hones his plant identification skills almost daily on plants from every corner of Minnesota.

Barbara Hassler

Barbara Hassler is the assistant area port director for trade in Pembina, North Dakota. She has oversight for the trade and agriculture mission at all 28 ports of entry in North Dakota and Minnesota. She also manages and provides oversight for fines, penalties and forfeitures, and serves as emergency management coordinator.

Kent Honl

Kent Honl has a deep interest and long experience in the care of trees and shrubs. Since 1994, he has worked with Rainbow Treecare, spending the bulk of this time as a consulting arborist.

Manuel Jordan

Manuel Jordan has experience working locally as city forester (various cities), at the state level for the Texas Forest Service, and internationally in Spain, England, and Mexico. He is an ISA-certified arborist, a founding member of the ISA Hispanic Committee, an arboriculture instructor at Hennepin Technical College, owner of Heritage Shade Tree Consultants, and partner of Plant Health Doctors.

Rebecca Koetter

Rebecca is currently a landscape consultant, garden maid, grower of a wide variety of edible trees and shrubs, and a hopeless romantic for using, producing, and enjoying urban landscape bounties.

Shirley Mah Kooyman

Shirley Mah Kooyman is a botanist, teacher, and plant information specialist. In 2009, she received the Bruce Beresford Horticulture Educators Award from the Minnesota State Horticultural Society. She previously worked at the Minnesota Landscape Arboretum for 25 years and was the adult education manager.

Jeff Loso

City of Bloomington Municipal Forestry

Thaddeus McCamant

Thaddeus grew up in Montana and went to college in Washington. For the past 12 years, he has been teaching fruit and vegetable production in Minnesota. Much of his work involves scouting for pests and diagnosing plant problems.

Dave Nowak

David J. Nowak is a project leader with the USDA Forest Service in Syracuse, New York. His research investigates urban forest structure, health, and change, and its effect on human health and environmental quality. He has authored more than 200 publications and leads teams developing software tools to quantify ecosystem services from urban vegetation.

Craig Pinkalla

Craig received his B.S. degree in urban forestry from the University of Wisconsin-Stevens Point. He worked for the City of Milwaukee as a tree protection specialist. His current focus is a cooperative effort between the Minneapolis Park Board and the University of Minnesota implementing and evaluating developmental pruning techniques.

Philip Potyondy

Philip Potyondy is the sustainable forestry coordinator at the Minneapolis Park and Recreation Board, and a recent graduate of the master's program from the Department of Forest Resources at the University of Minnesota.

Fred Rozumalski

Fred Rozumalski is an ecologist and landscape architect who leads the green infrastructure design group at Barr Engineering Co. in Minneapolis. He holds degrees in horticulture, ecology, and landscape architecture and has been adjunct faculty in the Department of Landscape Architecture at the University of Minnesota. Currently his work primarily focuses on sustainable design that addresses adaptation to climate change.

Ralph Sievert

Currently serving on the Minneapolis Park and Recreation Board as director of forestry where he oversees the management and maintenance of all public trees. His previous work includes serving as city forester in Cleveland, Ohio, and an urban forester with the Ohio DNR. He received his B.S. and M.S. from The Ohio State University. He has been a certified arborist since 1996.

Glen R. Stanosz

Glen Stanosz is a professor of tree and forest health at the University of Wisconsin-Madison, an ISA-certified arborist, and a plant health consultant. He studies diseases caused by fungi, and teaches disease biology and management to students in horticulture, landscape architecture, and professionals in forestry and the green industry.

Terry Straub

Terry Straub is the University of Minnesota Extension master gardener program coordinator in Hennepin County. He works with more than 350 volunteers, supporting their county-wide horticultural education efforts. He is adjunct faculty for the University of St. Thomas's Mini-MBA for Nonprofit Organizations and an educator with the Minnesota Association for Volunteer Administration.

Lorrie Stromme

Lorrie has been a lawyer for 30 years and has researched legal issues related to trees. Lorrie has a master's degree in horticulture and currently works in the public sector for a local watershed organization. Lorrie is also a Minnesota certified tree inspector and forest pest first detector.

Jennifer Teegarden

Since 2008, Jennifer Teegarden (B.S. in forest resources, University of Minnesota) has been the forestry outreach specialist for the Minnesota Department of Natural Resources. She helps manage the urban and community forestry and forest health programs that include community forestry bonding grants, Arbor Day Foundation programs, Arbor Month, fire prevention, and terrestrial invasive species.

Robert C. Venette

Rob Venette conducts research for the U.S. Forest Service on exotic, invasive insects, pathogens, and weeds that can affect trees and forests. Many of the pests he studies are not found in our state (yet!). He is also an adjunct associate professor of entomology at the University of Minnesota.

Elizabeth Walker

A lifelong Washington State resident, Elizabeth Walker has a master's degree in forest resources and more than 20 years experience on the state and local level helping communities, from Seattle to small residential towns, develop urban forestry programs, specializing in strategic planning and regulations.

Al Zelaya

Al Zelaya is an urban forester for the Davey Institute. His responsibilities include development, research, training, website administration, and providing technical support for domestic and international i-Tree projects. Al is an ISA-certified arborist and an instructor for the Society of Municipal Arborists' Municipal Forestry Institute program.

Jim Zwack

Jim Zwack has a B.S. in urban forestry and an M.S. in tree physiology. He is the director of technical services at the Davey Institute, which is the research and educational arm of the Davey Tree Expert Company. Jim is also the chairman of the board of The TREE Fund.

SESSION DESCRIPTIONS

Advanced Plant Health Care Concepts and Techniques

The body of knowledge about how to manage and care for the urban forest is always changing. This session will provide a review of new pesticides, equipment, techniques, and other tools that arborists across the country are both experimenting with and implementing on a regular basis.

Applied Tree Biology

As arborists, we influence tree growth from the root cap to the apical bud. Every action we take results in some form of reaction in tree growth and biology. We will discuss basic tree biology with emphasis on how it relates to ANSI standards and common tree-care practices.

Branching Out With Volunteers: Strategies to Engage a Natural Resource

Volunteers don't grow on trees! Well-run programs have systems in place to insure a good experience for all. Learn the components of a successful volunteer system, discuss current trends affecting today's volunteers, and discover how volunteers can help build your organization's capacity.

CBP 101: An Introduction to the Customs and Border Protection Mission

As America's frontline border agency, CBP is responsible for securing America's border against threats, while facilitating legal travel and trade. To do this, CBP has deployed a multi-layered, risk-based approach to enhance the security of our borders. We will discuss CBP's role in addressing a variety of threats including those to agriculture and forestry.

Session Descriptions (Continued)

Climate Change and Its Impact on Landscape Insects

We'll examine how the world's and Minnesota's climate have changed and how this can impact landscape insects. Particularly, we'll discuss how the distribution and abundance of insects could change, as well as the impact on insects when new landscape plants are introduced and when plants are increasingly exposed to stressful conditions.

Common Insect, Disease, and Physiological Disorders of Fruit Trees in Minnesota

In this course, attendees will learn how to identify and control the most common insect, disease, and physiological disorders in fruit trees here in Minnesota. Special attention will be given to the unique problems and advantages fruit trees have when grown in our state.

Decline Diseases of Trees

The tree "decline disease" model can explain gradual, progressive deterioration in tree health. Decline diseases result from multiple, interacting, and interchangeable factors that sequentially alter trees over many years. Learn how to recognize and prevent or respond to predisposing, inciting, and contributing factors that cause decline diseases leading to tree death.

Developing Winner Trees: How Well Are You Doing?

Look at some results of applied developmental pruning in Minneapolis. Trees that reach their species potential in our urban landscapes are bigger contributors to counter environmental impacts, they have longer utility life, and are proven to have reduced maintenance costs. Are your efforts working with a tree's natural blueprint for success?

Diagnosing Tree Diseases

Trees suffer from environmental stress, insect infestation, poor cultural practices, and disease. Before management practices can begin, a proper diagnosis of the problem must be made. Come learn how to diagnose tree diseases. Learn which symptoms can be shared among many problems and which are diagnostic.

"Didn't You Hear? We Had a TORNADO!"

When an EF2 tornado cut through the heavily populated north side of Minneapolis, life for the Minneapolis Park and Recreation Board's Forestry Department changed immediately. In this presentation, you will learn to expect the unexpected and deal with the many surprises that come with recovering from a tornado.

Growing Grapevines in the Landscape

While grapevines have often been used in landscaping in Minnesota, the fruit from the wild grapes that we know so well is acidic and bitter-tasting. In the past 30 years, the University of Minnesota has developed a number of grapes that can be eaten as table grapes or used to make wine at home. In this session, an overview of the types of the new grape varieties available for Minnesota growers and how to grow them will be covered.

Healthy Watersheds, Healthy Communities: Urban Water Resources and the Connection to Trees

Water and natural resources are one of the most valued assets of Minnesota communities. The quality of water resources is impacted by increasing amounts of urbanization and development and changes in precipitation patterns—both of which lead to increasing amounts of storm water runoff. Pollutants in, and the sheer quantity of, runoff pose challenges to the sustainability of our communities and our natural ecosystems. This presentation will highlight the impacts and pollutants from stormwater runoff, provide a foundation of knowledge of the current regulatory drivers, and peer into the toolbox of solutions; plans, practices, and policies, highlighting the role of trees.

In the Hot Seat: Forecasts of Future Threats to Minnesota's Urban Forests

Record warm conditions have improved the chances that certain invasive pests and pathogens might establish and damage trees in Minnesota. This presentation will discuss some pests and pathogens that might be more problematic in Minnesota's urban forests in the future, and a few that might be less.

Introduction to Urban Soils

Overview of soils and characteristics of urban soils. Managing soil for healthy root growth: soil texture and structure, organic matter, drainage, aeration, and water-holding capacity. Managing soil fertility: soil sampling and testing, organic and inorganic fertilizers, fertilizer application, diagnosing nutrient deficiencies.

"Is It Oak Wilt or Bur Oak Blight?"

Oak wilt and bur oak blight are two common diseases affecting oaks in Minnesota. While the symptoms of these diseases are often confused, their underlying causes and the resulting effects are quite different. In this session the causal agents, symptomology, biology, and management strategies for oak wilt and bur oak blight will be reviewed and differentiated.

i-Tree Version 5.0: Tools for Advancing Urban Forest Management

The release of i-Tree version 5 features new exciting options which make i-Tree more accessible and valuable as an urban forest management tool. This session will focus on enhancements to online and desktop i-Tree applications and discuss implementation strategies utilizing aerial and field-based assessment tools.

Lessons Learned From Sandy

New York City is no stranger to severe weather, and the significant storm events of recent years has elevated the preparedness of the city—which resulted in a swift response to the wrath of super storm Sandy. Wasting no time in the aftermath, the city has already undertaken a broad resilience strategy, which includes urban forestry.

Session Descriptions (Continued)

The Light Rail Corridor: Managing Water and Healthy Trees

The 11-mile Central Corridor Light Rail Transit system (CCLRT) will link the downtowns of Minneapolis and Saint Paul in Minnesota. The 100-acre corridor is primarily composed of commercial and industrial land uses and has more than 100 acres of impervious surfaces. Approximately 5.2 miles of integrated tree-trench system was constructed, and more than 1,000 trees planted along University Avenue. The system receives stormwater runoff from the street via catch basins that direct runoff to below grade infiltration trenches, and from sidewalks via pervious pavers that direct runoff to Cornell University structural soils (CU soils). The CU soils provide support for the overlying sidewalks, yet enhance tree growth that, in turn, will offer evapotranspiration, improved infiltration, and nutrient uptake.

Maple Tree Soil Application Research Project

The Maple Tree Soil Application Research Project is a randomized block experiment comparing five soil treatments: fertilizer, woodchips, fertilizer plus woodchips, and two types of compost on the establishment and growth of "Autumn Blaze" maple trees in an urban setting.

Minnesota Tree Law

This course will provide answers to commonly asked questions about trees and applicable Minnesota laws pertaining to negligence/liability, nuisance, trespass, and immunity.

Mountain Pine Beetle in Minnesota

Currently, the world's largest known forest insect outbreak in modern history continues to churn and slowly progress this way. Is it the emerald ash borer? No! It's the mountain pine beetle. Find out what this insect could do to Minnesota's native pines should it establish here.

Non-Traditional Methods of Tree Valuation

After reviewing a traditional, well-known method of tree valuation, we will explain other non-traditional methodologies and discuss where their applications are merited. We will also address some key issues, including which method is correct and who decides which one is right.

The Progressive Approach: Functional Gear and Innovative Work Positioning Concepts for Production Climbers

Taylor Hamel will discuss the latest designs and techniques to come out of the treemageiners stable and demonstrate their practical applications in production arboriculture. He will also share a few of his overseas work experiences.

Pruning for Structure

Proper pruning for structure can have tremendous positive impacts on the lifespan of a tree. Not just limited to trees in their infancy, structure pruning has applications into a tree's adolescence and maturity. This presentation will examine the benefits of beginning structure pruning early and the increased risks of doing nothing.

Reducing Infrastructure Damage by Tree Roots: An Overview of Strategies

Urban forests are valued for the aesthetic, environmental, social, and economic benefits they provide. Even though these benefits are substantial, they do not come without costs. Damage to infrastructure by tree roots is a major expense for practically every city in the United States. Developing effective plans to reduce this expense requires up-to-date and complete information on appropriate strategies. This presentation will provide an overview of key strategies that are used to address this problem and discuss benefits and limitations of each strategy.

Romancing the Stone Fruits, Pomes, and Berries

You or your clients and friends may be interested in the romance of edible landscaping but, alas, the initial allure and passion it creates can be short-lived. This presentation will give you an introductory look into woody edibles and five common features unique to each featured species that will help prolong and preserve your love affair.

Saving Energy With Community Trees in Minnesota

If you want to save energy, plant a tree. If you are community minded, plant often! Recently completed research using actual heating and cooling data from Hutchinson, Minnesota is revealed. Do leafless trees make a difference? How far away are the beneficial trees? It might be farther than you think.

Shade-Tolerant Plants for the Changing Landscape

As trees grow, the once sunny area becomes increasingly shadier. There are no bad plants, only right plants for the right place. Learn which native plants and cultivars are suited for shady landscape areas. Herbaceous, ferns, and woody plants will be highlighted.

Shrub Selection and Care for Tough, Droughty Sites

Projections show that Minnesota's climate will shift over the next decades to become more like Nebraska. Find out the best bets for shrub selection and care in a warmer, drier Minnesota.

Stockholm Tree Trench Method for Stormwater (STTeM)

Barr Engineering has modified the Stockholm tree trench method for tree growth to accommodate stormwater treatment. Stacking these functions is an effective way of cleaning stormwater while allowing urban trees to grow to maturity. This session will feature the Maplewood Mall parking lot retrofit project, which has over a mile of trench and 325 trees. Learn how this was accomplished and the initial results.

Successful Strategies for Today's Municipal Forest

Learn some tricks of the trade to be relevant in the world of city government and successfully develop an urban forestry program that is supported by managers, decision makers, and citizens alike. With more than 20 years of experience with communities of all sizes, your instructor has much to offer with this presentation.

Session Descriptions (Continued)

Surprise! Trees Do Recover

Trees get damaged but they do recover. The damage can be from causes including intentional acts, uneducated decisions, accidents, storms, and even well-meaning plans. How arborists plan a response can help the tree recover quickly.

Tree Care and the Law: What You Need to Know to Stay Out of the Courtroom

Reduce your exposure to the legal claims most frequently seen your industry. This presentation will provide guideposts to help spot potential legal issues before they become problems. We will cover workers compensation claims, tree damage claims, and other legal issues encountered by small business including general/subcontractor relationships, contracts, and/or insurance.

Tree Identification: As the Climate Shifts, Prepare to Shift Your Identification Skills!

Are you prepared to identify species taking advantage of a warmer and drier Minnesota? Bristly locust, tree-of-heaven, and Oriental bittersweet for starters, they're here—and so are many, many others. We will discuss tree identification basics and take a look at some invaders and species that like the heat turned up. . .

Tree Risk Assessment: Incorporating the New BMP Into Your Practice

Learn the key ideas that frame tree risk assessment. Learn the levels and scope of tree risk assessment. Learn how to determine the likelihood for failure, the likelihood of striking a target, and the consequences of failure. Learn how to use the new BMP in managing urban forest risks.

Tree Selection in a Changing Climate

Recent climate trends in the United States indicate that winter temperatures are warming and extreme weather events are becoming more common. In this presentation, Dr. Bert Cregg will discuss the implications of these trends for trees selection, especially in urban and community forests where climate changes are amplified by heat-island effects.

Using Partnerships as an IVM Tool: Aesthetic Mitigation on Utility Rights-of-Way Projects

This presentation will discuss the partnerships that utilities form to help with wildlife habitat improvements, community perception, and how it is used as a tool for integrated vegetation management (IVM).

What Have We Learned About EAB From Our Colleagues Out East?

General: The bad news is EAB is already here. The good news is we have industry colleagues who have experiences we can learn from, and time is still on our side. Examples of EAB management approaches, successes, and failures will be shared from a variety of locations across North America.

What Are Tree City USA, Tree Line USA, and Tree Campus USA?

Want recognition for the hard work your city, utility, or campus does for tree maintenance? If so, this session will help you become familiar with the Arbor Day Foundation's Tree City USA, Tree Line USA, and Tree Campus USA programs. For each program, you will learn about its benefits, requirements, and application procedures.

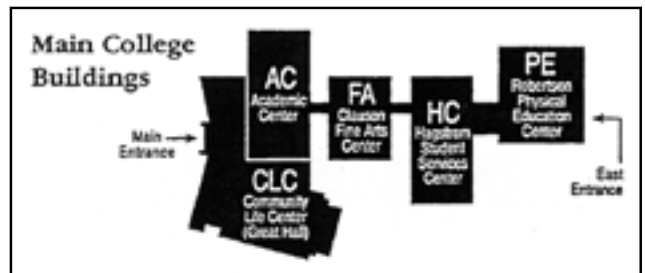
MAP AND DRIVING DIRECTIONS TO BETHEL UNIVERSITY

From the North: Take I-35W south to the County Road E2 exit. Go east to Old S.T.H. 10 (Snelling Ave.), turn right, and take the first left into campus. Or take I-694 east to the Snelling Ave. (Highway 51) turnoff and proceed to campus entrance on the right, one-quarter mile south. Note that Old U.S. Highway 10 connects with I-694 just west of the Snelling Ave. (Highway 51) turnoff.

From the West: During daytime hours, take I-694 east to the Snelling Ave. (Highway 51) turnoff and proceed to campus entrance on the right, one-quarter mile south. During evening hours, take I-694 east; turn south onto I-35W. Take I-35W to the County Road E2 exit. Go east to Old S.T.H. 10 (Snelling Ave.), turn right, and take first left into campus.

From the East: During daytime hours, take I-694 west to Snelling Ave. (Highway 51) exit, then make immediate left at the turn-around to go south onto Snelling Ave./ Highway 51. Campus entrance is one-half mile on the right. During evening hours, take I-694 west; turn south onto I-35W. Take I-35W to the County Road E2 exit. Go east to Old S.T.H. 10 (Snelling Ave.), turn right, and take first left into campus.

From the South: Take Snelling Ave. north and exit at County Road E. Turn left, proceed to Old S.T.H. 10 (Snelling Ave.), and turn right. Campus entrance is on the right. Or take I-35W north to the County Road E2 exit. Go east to Old S.T.H. 10 (Snelling Ave.), turn right, and take first left into campus.



REGISTRATION INFORMATION

Register:

1. Online at www.cce.umn.edu/shadetree
2. Fax your registration along with credit card number or purchase order number to 612-624-5359.
3. Mail registration form to:
University of Minnesota
20 Ruttan Hall
1994 Buford Avenue
Saint Paul, MN 55108

Please Note:

1. Please print or type when you fill in the registration form.
2. Use separate forms for each individual. Registration form may be photocopied.
3. We may be working outdoors so dress appropriately.
4. Cell phone etiquette – please remember to turn off your cell phones during all course sessions. Cell phone ringing and talking is disruptive to other participants.

Cancellations

If you need to cancel your registration, a refund, minus \$30, will be issued if you cancel by March 5, 2013. Cancellations after this date will not be eligible for a refund.

REGISTRATION FORM

Event ID# 186813/187036 hd

Registration Form

Shade Tree Short Course – March 12-13, 2013

Last Name	First Name	M.I.
Company/Institution	Title/Position	
E-mail		
Work Address		
City	State	Zip
Daytime Telephone	Fax Number	

Registration Fees:

Short Course by February 26, 2013 186813

- \$175 Registration fee by February 26, 2013
 \$40 Student registration fee
 \$95 Tree board/park board member fee

Short Course after February 26, 2013 186813

- \$190 Registration fee after February 26, 2013
 \$40 Student registration fee
 \$95 Tree board/park board member fee

Updating Climbing Techniques Workshop (15 Max) 187036

- \$120 by February 26, 2013 Workshop Only
 \$230 by February 26, 2013 Workshop & March 13 Short Course

Updating Climbing Techniques Workshop (15 Max) 187036

- \$135 after February 26, 2013 Workshop Only
 \$245 after February 26, 2013 Workshop & March 13 Short Course

Attendance Plans

- I will attend the MSA picnic on Tuesday evening, March 12 (Como Park)

Payment Method

- Enclosed is a check or purchase order payable to the University of Minnesota
 Please bill my organization (purchase order or letter of authorization attached)
 Please charge my U of M EFS#: _____
 Please charge my VISA MasterCard American Express Discover

Card Number	Expiration Date	\$ Amount to Charge
Name as it appears on card		Signature

NOTE: Registrations without payment will delay processing.

The information on this form is private data, used to identify and locate you, obtain payment, and enable instructors to better know their audience. Name address, and method of payment are mandatory.
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