

The 49th 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 15-16, 2011

Bethel University, Arden Hills, Minnesota



Ensuring Tree Health Since 1963

www.cce.umn.edu/shadetree

UNIVERSITY OF MINNESOTA
Driven to DiscoverSM

An Urban Forestry Crystal Ball

What will be the top urban forestry stories for 2011? More (spring, summer, and autumn) floods, tornados, record snowfalls in December followed by ice storms, or another snowless March? Perhaps more acronyms attacking our trees, urban forests, and quality of life: EAB, FTC, TCD, ALB and DED*? Or, maybe the top stories in urban forestry will have more of an economic theme: the state starts taking back money from municipalities; even fewer city and agency employees will be performing more tasks that require even more specialized skills; or community assistance will be based on complete inventories of assets?

There was a noticeable, uncomfortable shift in your posture as you read that first paragraph, wasn't there? It's because each one of those seemingly distant outcomes has an all-too-possible likelihood. Neither avoiding nor ignoring these scenarios seems like a good tactic. Proactive preparation is a much better alternative, and there's an acronym for that, too: the STSC!

Look over the list of sessions and speakers and try to find an area of concern that isn't addressed at the 49th Annual Minnesota Shade Tree Short Course. Managing infectious, invasive tree diseases and pests. Conducting community tree inventories on a budget and engaging citizens. Safely working in trees while repairing storm damage. Learning how to use your iPad or 'Droid for something more than playing electronic games! Determining the best diagnostic, chemicals, and control tactics for emerald ash borer. Managing construction activities and tree health. Dropping trees without dropping them on houses or power lines.

For 2011, the Minnesota Shade Tree Short Course continues to offer the most complete professional urban forestry and arboriculture conference in the country. Where else can you find courses that prepare you for certification, serving as an urban forestry volunteer, enjoying a long and safe career as an arborist, managing budgets, identifying and controlling tree health problems...for \$165? And if you're a tree board member or a student, the STSC is even more affordable!

Two days of more than 35 different urban forestry or arboricultural sessions, two complete lunches, four complete refreshment breaks, an exhibit area with the best vendors, door prizes, and free parking. Everything that you need to enter the profession, become a better professional, or become engaged as a volunteer can be found at the 2011 Shade Tree Short Course.

Bethel University is the perfect location for an urban forestry conference. Easy to find (one minute off I-694), plentiful parking, outstanding classrooms and lecture halls, a world-class cafeteria, and most importantly, a beautifully landscaped campus with scores of mature trees. Join us again or for the first time...you won't regret it.

Gary Johnson, Chair
Department of Forest Resources
College of Food, Agricultural and Natural
Resource Sciences
University of Minnesota

*Emerald ash borer, forest tent caterpillar, thousand cankers disease, Asian long horned beetle, Dutch elm disease.

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Minnesota Shade Tree Short Course

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 16) 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, STSC Chair, Department of Forest Resources, College of Food, Agricultural and Natural Resource Sciences, University of Minnesota

Mike Bahe, Municipal Arborist, City of Hutchinson

David Hanson, Research Specialist, Department of Forest Resources, College of Food, Agricultural and Natural Resource Sciences, University of Minnesota

Ken Holman, Department of Natural Resources

Ben Johnson, Commercial Arborist, Rainbow Treecare

Jill Johnson, Coordinator, Midwest Center for Urban Forestry, US Forest Service

Manuel Jordan, Owner, Heritage Shade Tree Consultants

Russell Kennedy, Commercial Arborist, Rainbow Treecare

Bob Koch, Minnesota Department of Agriculture

Jeff Loso, City of Bloomington Municipal Forestry

Justin Meier, Student Representative, University of Minnesota

Jean Mouelle, Department of Natural Resources

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

Philip Potyondy, Municipal Urban Forester, Minneapolis Park and Recreation Board

Mark Schnobrich, Municipal Forester, City of Hutchinson

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

Paul Voigt, Agency Urban Forester, Minnesota Department of Transportation

Certification and Credit

- Certified tree inspectors will be recertified for 2012 by attending the entire short course.
- ISA CEUs will be given for all 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 or e-mail – 952-252-0527 or bjohnson@rainbowtreecare.com.

Tree Inspector Information

Andrea Dierich

Minnesota Department of Natural Resources

Division of Forestry - Box 44

500 Lafayette Rd.

Saint Paul, MN 55155

651-259-5306

Registration Questions

612-625-2900

For More Information

Heather Dorr or 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: To Be Determined. Please check the Web site for updated information at www.cce.umn.edu/shadetree

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: New Elms for American Cities
Kris Bachtell, Morton Arboretum
- Household Landscapes and Urban Ecosystems
Kristen Nelson, *Cinzia Fissorie*, and *Sarah Hobbie*, University of Minnesota
- GSIII: Invasion Biology
Mark Davis, Macalester University
- GSIV: How Many and Where: An Ecologist's Perspective on Planting Trees in the City
Rebecca Montgomery, University of Minnesota
- GSV: Extreme Urban Forest Makeover: Ice and Winter Storm Edition
Rich Hauer, University of Wisconsin at Stevens Point
- GSVI: Protecting Urban Forest Infrastructure During Construction
Jeremy Barrick, City of New York Parks and Recreation

Concurrent Sessions (in alphabetical order)

Key: 🕒 - 1 hour and 45- minute session 🕒 - only offered one time 💧 - pre-registration required

Introductory Sessions

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 I.D., diagnosing problems, soil science, and plant maintenance.

- A Walk in the Big Woods 🕒
- Attractive and Edible - Double Duty Shrubs for Your Yardscape
- Careers in Urban Forestry and Arboriculture 🕒
- Choosing EAB Insecticides: Environmental, Safety, and Regulatory Considerations
- Hazardous and Dangerous Tree Felling and Cutting
- iThings for Urban and Community Forestry 🕒
- Managing Mature and Neglected Fruit Trees in the Landscape
- Mn/DOT's Landscape Partnership Program: Enhancing Landscapes and Communities
- Reduction Pruning - Physics, Physiology, and Form
- Sawflies, Caterpillars, and Beetles, Oh My! Conifer Defoliators in Minnesota
- The Aerial Environment: Common Incidents Among Climbers and Lift Operators and Emergency Response Requirements.
- Tree Biology
- Wanting to Become a BCMA?
- What's Wrong With My Tree? In-The-Field Diagnosis

Technical Sessions


These sessions build on your basic understanding of arboriculture and urban forestry with new, specific, or more technical information.

- A Practitioners Guide to Allelopathy
- A Walk in the Big Woods 🕒
- Attractive and Edible - Double Duty Shrubs for Your Yardscape
- Choosing EAB Insecticides: Environmental, Safety and Regulatory Considerations
- Detection of Emerald Ash Borer in Urban Environments Using Branch Sampling
- EAB: What Chemicals Are Best?
- Fertilizers, Soil Amendments, and Secret Sauces: What Trees Really Need in the Landscape and How We Can Best Meet Those Needs With Today's "Nutritional" Technologies
- Hazardous and Dangerous Tree Felling and Cutting
- In a Changing World - The Role of Plant Exploration, Evaluation, and Introduction 🕒
- iThings for Urban and Community Forestry 🕒
- Managing Mature and Neglected Fruit Trees in the Landscape
- Mn/DOT's Landscape Partnership Program: Enhancing Landscapes and Communities
- Mysteries of a Minnesota Wild Elm Forest
- Reduction Pruning - Physics, Physiology, and Form
- Sawflies, Caterpillars, and Beetles, Oh My! Conifer Defoliators in Minnesota
- Say it With a Map 🕒💧

- Sustaining Trees
- The Aerial Environment: Common Incidents Among Climbers and Lift Operators and Emergency Response Requirements.
- Tree Biology
- Wave of the Future: Municipal Tree Contracting
- What's Wrong With My Tree? In-The-Field Diagnosis

Advanced Technical Track

Advanced sessions tend to be very topic specific, and assume that you have the experience and education for more technically challenging classes. For example, rather than a primer on diagnosing diseases, advanced technical sessions will focus on one or two diseases and discuss the pathogen(s), life cycles, various control tactics, and recent research.

- Cha-ching, Cha-chew . . . Economic and Urban Forestry Decision Making Models and Emerald Ash Borer Management 
- Fungi and Diseases - Natural Components of a Healthy Forest
- Managing Urban Soils for Tree Health
- REPEAT

Community Forestry

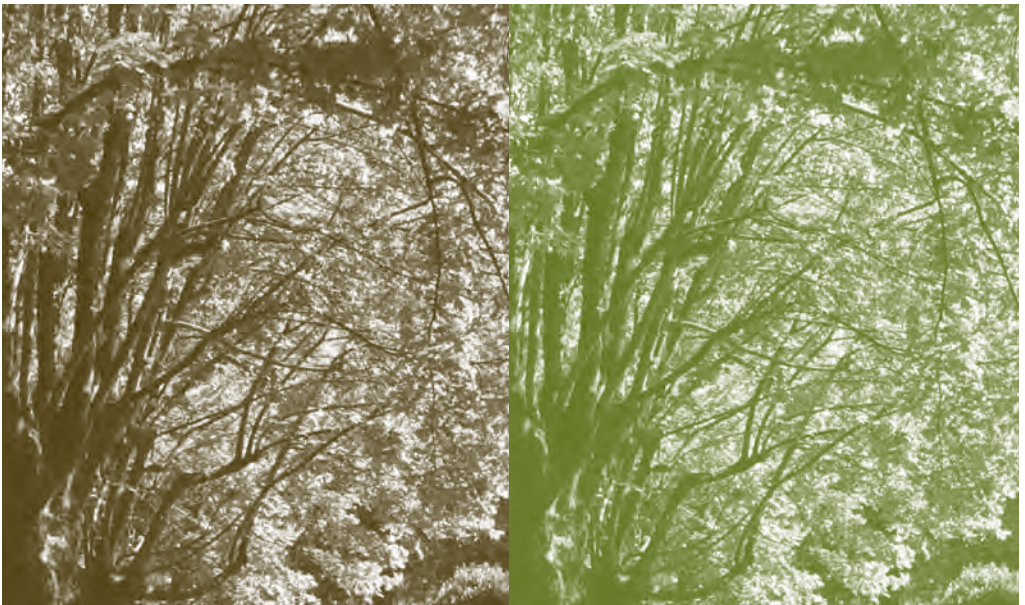
These sessions will help volunteers, advocates, or decision makers at any level to make better educated choices.

- Careers in Urban Forestry and Arboriculture 
- Evolution of an Activist
- Mn/DOT's Landscape Partnership Program: Enhancing Landscapes and Communities
- Sustaining Trees

International Society of Arboriculture, Certified Arborist Exam Preparation Track

These selected sessions will greatly assist your preparation to take the certification exam. Select sessions that you feel will strengthen your weaknesses.

- A Practitioners Guide to Allelopathy
- A Walk in the Big Woods 
- Attractive and Edible - Double Duty Shrubs for Your Yardscape
- Choosing EAB Insecticides: Environmental, Safety, and Regulatory Considerations
- Fertilizers, Soil Amendments, and Secret Sauces: What Trees Really Need in the Landscape and How We Can Best Meet Those Needs with Today's "Nutritional" Technologies
- Hazardous and Dangerous Tree Felling and Cutting
- Managing Urban Soils for Tree Health
- Reduction Pruning - Physics, Physiology and Form
- REPEAT
- Sawflies, Caterpillars, and Beetles, Oh My! Conifer Defoliators in Minnesota
- Sustaining Trees
- The Aerial Environment: Common Incidents Among Climbers and Lift Operators and Emergency Response Requirements.
- Tree Biology
- What's Wrong With My Tree? In-The-Field Diagnosis



Registration Fees

The early registration fee, received by March 1, is \$165 per person. The regular fee after March 1 and at the door is \$180 per person. The registration fee includes general sessions, 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 \$85 per person.

To obtain the tree board/park board member rate, documentation from the city that the person is a member of the tree or park board must accompany the registration form. Write "Tree Board Member Option 086" on your registration form.

Tree House of Horrors – 2011

The Tree House of Horrors: Your Gateway to Diagnosing Tree Health Problems!

Fresh samples from common tree problems will test your diagnostic skills. As always, the interesting samples of tree morphology, decay, embedded artifacts in trees and other phenomena provided by local arborists, the University of Minnesota, Minnesota Department of Transportation, and Minneapolis Park Board collections will be on display.

Back by popular demand will be the poster displays of our current research projects at the University of Minnesota as well as the latest information on invasive insect pests of trees and shrubs. As always, there will be experts on hand to discuss those tree health questions that you always seem to encounter on your job.

A tree identification quiz will be available on both days in the THOH for everyone, and ISA Certified Arborists may earn 1.0 CEUs for correctly answering 72 percent of the tree samples.

The Tree House of Horrors is organized by:

Dave Hanson, Department of Forest Resources, College of Food, Agricultural and Natural Resource Sciences, University of Minnesota



Exhibit Area Classes

The exhibit area "mini-classes" that we instituted in 2009 were so well received that they will be back for 2011. These 15-20 minute classes, offered in the exhibit area during the open hours, will cover the following topics:

- Field First Aid, Lynn Welles, Northeast Tree
- Check the Web site for updates of additional classes.



Our Speakers

Kris Bachtell is vice president of collections and facilities at the Morton Arboretum, Lisle, Illinois.

John Ball is an extension forestry specialist with South Dakota State University.

Jeremy Barrick is the Capital Projects Arborists City of New York Parks and Recreation.

Shawn Bernick is director of Research and Technical Support, Rainbow Treecare Scientific Advancements.

Todd Carroll is a landscape architect with the Minnesota Department of Transportation.

Timothy Chick is an adjunct forestry professor at Paul Smith's College teaching Utility Vegetation Management, and a forestry consultant.

Mark Davis is a DeWitt Wallace Professor of biology at Macalester College, Saint Paul, Minnesota.

Cinzia Fissorie is a post-doctoral associate, Department of Soil, Water, and Climate, University of Minnesota.

Judy Gibbs is chair of Friends of the Parks in Duluth, Minnesota.

Jeff Hafner is a climbing and consulting arborist working in the Twin Cities.

Jeff Hahn is a University of Minnesota Extension entomologist.

Dave Hanson is a research specialist in the Department of Forest Resources and the Urban Forestry and Horticulture Institute, University of Minnesota.

Rich Hauer is associate professor of urban forestry, University of Wisconsin at Stevens Point.

Nila Hines is a pesticide management research scientist 2 with the Minnesota Department of Agriculture.

Sarah Hobbie is an associate professor, Department of Ecology, Evolution and Behavior, University of Minnesota.

Jeff Johnson is a horticulturist at the Minnesota Landscape Arboretum, University of Minnesota.

Sam Kezar is a safety consultant with Aspen Arboriculture Solutions and instructor with North American Training Solutions.

Rebecca Koetter is a research fellow in the Department of Forest Resources and the Urban Forestry and Horticulture Institute, University of Minnesota.

Nick Kuhn is the city forester for Albuquerque, New Mexico.

Janet Larson is the natural resources restoration specialist with the City of Minnetonka.

John Lloyd is the director of Science at Rainbow Treecare.

Jay Maier is a commercial arborist and owner of Maier Forest and Tree in Rochester, Minnesota.

Rebecca Montgomery is assistant professor of forest ecology, Department of Forest Resources, University of Minnesota.

Kristen Nelson is an associate professor, Department of Forest Resources and Department of Fisheries, Wildlife and Conservation Biology, University of Minnesota.

Mike Ostry is a research plant pathologist with the U.S. Forest Service.

Jim Ostvig is a commercial arborist with Ostvig Tree Inc., Wayzata, Minnesota.

Philip Potyondy is an urban forestry intern with the Minneapolis Park and Recreation Board Forestry Division, and a graduate student, Department of Forest Resources, University of Minnesota.

Krista Ryall is an entomologist with the Canadian Forest Service.

Jacob Ryg is the city forester for Rochester, Minnesota.

Kay Sargent is a licensing and certification adviser with the Minnesota Department of Agriculture.

Bryant Scharenbroch is a soil scientist at the Morton Arboretum in Lisle, Illinois.

Nora Sirbaugh serves on the Environmental Commission for Hopewell Township in Mercer County, New Jersey, is a master gardener and serves on the music faculty at The College of New Jersey.

Barb Spears is a consulting forester, community activist, and member of Saint Paul's Tree Advisory Panel.

Glen Stanosz is a professor of plant pathology and academic programs at the University of Wisconsin, Madison.

Mark Stennes is a forest and shade tree pathologist and consulting arborist with S&S Tree Specialist in South Saint Paul, Minnesota.

Jim Vaughan is the environmental coordinator with the City of St. Louis Park, Minnesota.

Lynn Welles is a co-owner and operator of Northeast Tree in Minneapolis.

Joe Zeleznik is an extension forester with North Dakota State University.

International Society of Arboriculture (ISA) Continuing

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

Session	Title	CEU Hours
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General Sessions (GS)

GS 1-3	New Elms for American Cities, Household Landscapes, Invasion Biology	2 AMBm 1 U
GS 4-6	How Many and Where: An Ecologist's Perspective, Extreme Urban Forest Makeover, Protecting Urban Forest Infrastructure	2 AMBp 1 UT

Introductory Sessions (CS)

CS	A Walk in the Big Woods	1.75 ATMBs
CS	Attractive and Edible - Double Duty Shrubs	.75 ATMBp
CS	Careers in Urban Forestry and Arboriculture	.75 AMBm
CS	Choosing EAB Insecticides	1 AMBs
CS	Hazardous and Dangerous Tree Felling	.75 ATMBp
CS	iThings for Urban and Community Forestry	.75 AMBm
CS	Managing Mature and Neglected Fruit Trees	.75 ATMBp
CS	Mn/DOT's Landscape Partnership Program	.75 AMBm
CS	Reduction Pruning - Physics, Physiology	1 ATUMBp
CS	Sawflies, Caterpillars, and Beetles	1 AMBs
CS	The Aerial Environment: Common Incidents	1 ATUMBp
CS	Tree Biology	1 ATUMBs
CS	Wanting to Become a BCMA?	.75 AMBm
CS	What's Wrong With My Tree?	1 AMBp

Education Units (CEUs)

ISA Certification Code Information

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

Session	Title	CEU Hours
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Technical Sessions (CS)

CS	A Practitioners Guide to Allelopathy	.75 AMBs
CS	A Walk in the Big Woods	1.75 ATMBs
CS	Attractive and Edible - Double Duty Shrubs	.75 ATMBp
CS	Choosing EAB Insecticides	1 AMBs
CS	Detection of Emerald Ash Borer	.75 ATMBs
CS	EAB: What Chemicals Are Best?	.75 AMBs
CS	Fertilizers, Soil Amendments, and Secret Sauces	.75 AMBs
CS	Hazardous and Dangerous Tree Felling	.75 ATMBp
CS	In a Changing World - The Role of Plant Exploration	.75 AMBm
CS	iThings for Urban and Community Forestry	.75 AMBm
CS	Managing Mature and Neglected Fruit Trees	.75 ATMBp
CS	Mn/DOT's Landscape Partnership Program	.75 AMBm
CS	Mysteries of a Minnesota Wild Elm Forest	.75 AMBm
CS	Reduction Pruning - Physics, Physiology	1 ATUMBp
CS	Sawflies, Caterpillars, and Beetles	1 AMBs
CS	Say it With a Map	.75 AMBm
CS	Sustaining Trees	1 ATMBs
CS	The Aerial Environment: Common Incidents	1 ATUMBp
CS	Tree Biology	1 ATUMBs
CS	Wave of the Future: Municipal Tree Contracting	.75 AMBm
CS	What's Wrong With My Tree?	1 AMBp

Advanced Technical Sessions (CS)

CS	Cha-ching, Cha-chew ... Economic and Urban Forestry	.75 AMBm
CS	Fungi and Diseases - Natural Components	.75 ATMBs
CS	Managing Urban Soils for Tree Health	.75 AMBp
CS	REPEAT	1 AMBp

Community Forestry Sessions (CS)

CS	Careers in Urban Forestry and Arboriculture	.75 AMBm
CS	Evolution of an Activist	.75 AMBm
CS	Mn/DOT's Landscape Partnership Program	.75 AMBm
CS	Sustaining Trees	1 ATMBs

Program – Tuesday, March 15, 2011

6:45 a.m.

Registration begins

General Sessions – Benson Great Hall

7:30

Welcome and Opening Remarks

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

7:45

GS1: New Elms for American Cities

Kris Bachtell, Morton Arboretum

8:40

GSII: Household Landscapes and Urban Ecosystems

Kristen Nelson, Cinzia Fissorie, and Sarah Hobbie,
University of Minnesota

9:35

GSIII: Invasion Biology

Mark Davis, Macalester University

10:30-12:15

Exhibit Area and the Tree House of Horrors

11:00

Group 1 Lunch Break

11:20

Group 2 Lunch Break

11:45

Group 3 Lunch Break (MSA Members to eat and
hold Business Meeting)

12:15 p.m.

Concurrent Sessions Begin

KEY FOR CONCURRENT SESSIONS

-  1 hour and 45-minute session
-  only offered one time
-  Pre-registration required
- I Introductory Session
- T Technical Session
- A Advanced Technical
- C Community Forestry
- E ISA Certified Arborist Exam Prep



12:15-1:00

- A Practitioners Guide to Allelopathy**, *Timothy Chick* T,E
- Attractive and Edible - Double Duty Shrubs for Your Yardscape**, *Rebecca Koetter* I,T,E
- Cha-ching, Cha-chew ... Economic and Urban Forestry Decision Making Models and Emerald Ash Borer Management**, *Rich Hauer* A,👤
- Detection of Emerald Ash Borer in Urban Environments Using Branch Sampling**, *Krista Ryall* T
- EAB:What Chemicals are Best?**, *Shawn Bernick* T
- Evolution of an Activist**, *Nora Sirbaugh, Barb Spears and Judy Gibbs* C
- Fertilizers, Soil Amendments, and Secret Sauces: What Trees Really Need in the Landscape and How We Can Best Meet Those Needs With Today's "Nutritional" Technologies**, *John Lloyd* T,E
- Wave of the Future: Municipal Tree Contracting**, *Jim Vaughan and Jim Ostvig* T

1:15-2:00

- Fungi and Diseases - Natural Components of a Healthy Forest**, *Mike Ostry* A
- Hazardous and Dangerous Tree Felling and Cutting**, *Sam Kezar* I,T,E
- In a Changing World - The Role of Plant Exploration, Evaluation, and Introduction**, *Kris Bachtell* T,👤
- iThings for Urban and Community Forestry**, *Philip Potyondy* I,T,👤
- Managing Mature and Neglected Fruit Trees in the Landscape**, *Jeff Johnson* I,T
- Managing Urban Soils for Tree Health**, *Bryant Scharenbroch* A,E
- Mn/DOT's Landscape Partnership Program: Enhancing Landscapes and Communities**, *Todd Carroll* I,C,T
- Mysteries of a Minnesota Wild Elm Forest**, *Mark Stennes* T

2:00-2:45

Exhibits, Refreshments, and "Mini-Sessions" in the Exhibit Hall.

2:45-3:45

- Choosing EAB Insecticides: Environmental, Safety, and Regulatory Considerations**, *Kay Sargent and Nila Hines* I,T,E
- Reduction Pruning – Physics, Physiology, and Form**, *Jeff Hafner* I,T,E
- REPEAT**, *Glen Stanosz* A,E
- Sawflies, Caterpillars, and Beetles, Oh My! Conifer Defoliators in Minnesota**, *Jeff Hahn* I,T,E
- Sustaining Trees**, *Nick Kuhn* T,C,E
- The Aerial Environment: Common Incidents Among Climbers and Lift Operators and Emergency Response Requirements**, *John Ball* I,T,E
- Tree Biology**, *Janet Larson* I,T,E
- What's Wrong with My Tree? In-the-Field Diagnosis**, *Joe Zeleznik* I,T,E

1 hour 45-minute Session

12:15-2:00

- A Walk in the Big Woods**, *Dave Hanson* 🌳, I,T,E

3:45

Adjourn

4:15

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

5:30

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

Program – Wednesday, March 16, 2011

General Sessions – Benson Great Hall

7:45

GSIV: How Many and Where: An Ecologist's Perspective on Planting Trees in the City, *Rebecca Montgomery*, University of Minnesota

8:40

GSV: Extreme Urban Forest Makeover: Ice and Winter Storm Edition, *Rich Hauer*, University of Wisconsin at Stevens Point

9:35

GSVI: Protecting Urban Forest Infrastructure During Construction, *Jeremy Barrick*, City of New York Parks and Recreation

10:30-12:15

Exhibit Area and the Tree House of Horrors

11:00

Group 1 Lunch Break

11:20

Group 2 Lunch Break


11:45

Group 3 Lunch Break

12:15 p.m.

Concurrent Sessions Begin

KEY FOR CONCURRENT SESSIONS

-  1 hour and 50-minute session
-  only offered one time
-  Pre-registration required
- I Introductory Session
- T Technical Session
- A Advanced Technical
- C Community Forestry
- E ISA Certified Arborist Exam Prep



12:15-1:00

- A Practitioners Guide to Allelopathy**, *Timothy Chick* T,E
- Attractive and Edible - Double Duty Shrubs for Your Yardscape**, *Rebecca Koetter* I,T,E
- Careers in Urban Forestry and Arboriculture**, *Jeremy Barrick* I,C,🔗
- Detection of Emerald Ash Borer in Urban Environments Using Branch Sampling**,
Krista Ryall T
- EAB:What Chemicals Are Best?**, *Shawn Bernick* T
- Wanting to Become a BCMA?**, *Jay Maier and Jacob Ryg* I,🔗
- Reduction Pruning – Physics, Physiology, and Form**, *Jeff Hafner* I,T,E
- Say it With a Map**, *Philip Potyondy* 🌿,🔗, T,Xtra-Fee

1:15-2:00

- Evolution of an Activist**, *Nora Sirbaugh, Barb Spears, and Judy Gibbs* C
- Wave of the Future: Municipal Tree Contracting**, *Jim Vaughan and Jim Ostvig* T
- Fertilizers, Soil Amendments, and Secret Sauces: What Trees Really Need in the Landscape and How We Can Best Meet Those Needs with Today’s “Nutritional” Technologies**, *John Lloyd* T,E
- Fungi and Diseases - Natural Components of a Healthy Forest**, *Mike Ostry* A
- Hazardous and Dangerous Tree Felling and Cutting**, *Sam Kezar* I,T,E
- Managing Mature and Neglected Fruit Trees in the Landscape**, *Jeff Johnson* I,T
- Mn/DOT’s Landscape Partnership Program: Enhancing Landscapes and Communities**, *Todd Carroll* I,C,T
- Mysteries of a Minnesota Wild Elm Forest**, *Mark Stennes* T

2:00-2:45

Exhibits, Refreshments, and “Mini-Sessions” in the Exhibit Hall

2:45-3:45

- Choosing EAB Insecticides: Environmental, Safety, and Regulatory Considerations**,
Kay Sargent and Nila Hines I,T,E
- Managing Urban Soils for Tree Health**, *Bryant Scharenbroch* A,E
- REPEAT**, *Glen Stanosz* A,E
- Sawflies, Caterpillars, and Beetles, Oh My! Conifer Defoliators in Minnesota**,
Jeff Hahn I,T,E
- Sustaining Trees**, *Nick Kuhn* T,C,E
- The Aerial Environment: Common Incidents Among Climbers and Lift Operators and Emergency Response Requirements**, *John Ball* I,T,E
- Tree Biology**, *Janet Larson* I,T,E
- What’s Wrong with My Tree? In-the-Field Diagnosis**, *Joe Zeleznik* I,T,E

1 hour 45-minute Session

12:15-2:00

A Walk in the Big Woods, *Dave Hanson* 🌿,I,T,E

3:45

Adjourn

Presentation Descriptions

General Sessions (in alphabetical order)

Extreme Urban Forest Makeover: the Ice and Winter Storm Edition

Ice storms commonly disturb the urban forest. Learn how ice storms form; baby steps to developing plans to prepare, respond, and recover; stopping a crisis from becoming a disaster; lessons learned from ice storms; and calculating the volume of debris to remove after the storm. *Rich Hauer*, University of Wisconsin at Stevens Point

Household Landscapes and Urban Ecosystems

Ever wonder how everyday choices and activities are affecting the environment? Discover how household landscapes influence carbon, nitrogen and phosphorus in the urban landscape ecosystem. Information collected from households in Ramsey/Anoka County revealed a number of common landscape behaviors (lawn clipping and leaf management, fertilizing, tree species and sizes, etc.) that affect nutrient flows and pollution problems and how homeowner attitudes, values and concerns influence these management practices. If you are an urban forest manager, this session will reveal the impact that privately owned landscapes and your constituents have on the sustainability of your community's landscape. *Kristen Nelson, Cinzia Fissorie, and Sarah Hobbie*, University of Minnesota

How Many and Where? An Ecologist's Perspective on Planting Trees in the City

Urban trees provide many environmental benefits and ecosystem services. They moderate climate, absorb UV, sequester carbon, increase air and water quality, and decrease runoff and flooding. These benefits are largely a function of urban forest structure – the density, size, and spatial arrangements of trees. Come hear an ecologist's views on how many trees we should plant and where we should plant them. *Rebecca Montgomery*, University of Minnesota

Invasion Biology

With the exception of climate change, biological invasions have probably received more attention during the past 10 years than any other ecological topic. This session connects science with application by describing the health, economic, and ecological impacts of invasive species as well as the variety of management strategies developed to mitigate harmful impacts. *Mark Davis*, Macalester University

New Elms for American Cities

Once a major landscape tree, the American elm (*Ulmus americana*) was the dominant tree in most street tree and park plantings in northern regions of the United States. Due to its broad range of environmental tolerances, classic cathedral-like form, and other attributes, it was viewed as the "perfect" tree. Unfortunately, it was extremely vulnerable to Dutch Elm Disease (DED), and millions of mature specimens have been lost in the 1960s. Today, as a result of a number of selecting and breeding programs, a completely new generation of elms is becoming available to beautify and green American cities. *Kris Bachtell*, Morton Arboretum

Protecting Urban Forest Infrastructure During Construction

You think you have it tough, trying to improve streets, sidewalks, and curbs without wiping out every tree in your community? Local boy Jeremy Barrick returns home to relate his experiences and successes at saving trees that are surrounded by acres of concrete and millions of people in New York City. *Jeremy Barrick*, City of New York Parks and Recreation

Concurrent Sessions (in alphabetical order)

A Practitioner's Guide to Allelopathy

Some plants release chemicals into the soil that may inhibit growth and health of nearby plants. This process is known as allelopathy and this presentation will explore how it works, what species may be affected, and how to deal with or avoid negative allelopathic impacts in your landscape. *Timothy Chick*, Paul Smith's College

A Walk in the Big Woods

Dave Hanson is back to introduce you to another group of useful plants for the landscapes or boulevards...trees, shrubs, and a vine or two that are native to Minnesota's Big Woods. This is more than just a plant i.d. session. Dave will fill in some useful details for the plants...where they grow best, how they can be used, as well as how they seasonally look. *Dave Hanson*, University of Minnesota

Attractive and Edible - Double Duty Shrubs for Your Yardscape

Victory Gardens played a historic role in our country's past, but now these edible gardens have found a rebirth in today's communities, this time under new names and driven by new motivations. Come to this class to learn about basic edible shrub solutions for your Minnesota yard covering the topics of selection, maintenance, care, and pruning. *Rebecca Koetter*, University of Minnesota

Careers in Urban Forestry and Arboriculture

For all of you considering a career change to tree care or urban forestry or are young enough to be starting out in the profession, this session will open your eyes to opportunities around the country. Jeremy has been a municipal arborist, a research assistant, a consulting arborist and has an excellent perspective of the future of our profession. *Jeremy Barrick*, City of New York Parks and Recreation

Cha-ching, Cha-chew ... Economic and Urban Forestry Decision Making Models and Emerald Ash Borer Management

Don't fear the emerald ash borer (EAB) green reaper. Apply creative management solutions for EAB based on urban forest management principles. By design urban forestry involves interdisciplinary actions such as economic decision making, debris management, reforestation methods, and other strategies to keep the green reaper in check and the canopy in your community. *Rich Hauer*, University of Wisconsin at Stevens Point

Choosing EAB Insecticides: Environmental, Safety, and Regulatory Considerations

Will systemic insecticides applied to the soil impact surface or groundwater quality? Why are EAB

insecticide labels so confusing? Why do I need to wear eye protection when using certain trunk injection insecticides? Do I need to be licensed to use this product? These are some questions pesticide applicators ask when choosing a treatment option to control EAB. This session will cover some of the most frequently asked questions on EAB insecticide labels, applicator certification, pesticide safety, and use recommendations to protect the environment. *Kay Sargent and Nila Hines*, Minnesota Department of Agriculture

Detection of Emerald Ash Borer in Urban Environments Using Branch Sampling

Branch sampling is a highly effective tool for detection of incipient EAB populations, before outwardly signs or symptoms become apparent. Early detection of EAB populations can provide managers with additional time to identify and implement management options before unacceptable ash mortality occurs. This technique can be used for early detection of incipient EAB populations; to provide estimates of EAB density on infested trees and to delimit the extent of outbreaks. *Krista Ryall*, Natural Resources Canada

EAB – What Chemicals Are Best?

This session will focus on the chemical controls available for combating emerald ash borer in your community, which are restricted, when should they be applied or not applied...everything you need to know to make the best decisions for your landscape or community. This is not an infomercial! All information is based on the superb recommendations found in the publication, *Insecticide Options for Protecting Ash Trees from Emerald Ash Borer and Their Effectiveness*. *Shawn Bernick*, Rainbow Treecare Scientific Advancements

Evolution of an Activist

While every community faces unique challenges in its balance between people, plants, and budgets, in the end, it is about taking time and caring. Working with volunteers, master gardeners and local environmental groups, Hopewell Township, New Jersey has adopted a Community Forestry Plan, struggled with deforestation by man and deer, drafted a Woodlands Protection Ordinance, and begun the much needed overhaul of the Shade Tree Ordinance to encompass the planting of native trees. Examples of similar successes in Saint Paul and Duluth will be discussed by local representatives. *Nora Sirbaugh*, Mercer County New Jersey, *Barb Spears*, TWF Consulting, LLC, and *Judy Gibbs*, Friends of the Park, Duluth

Concurrent Sessions (in alphabetical order)

Fertilizers, Soil Amendments, and Secret Sauces: What Trees Really Need in the Landscape and How We Can Best Meet Those Needs With Today's "Nutritional" Technologies

A research-based approach to making decisions about whether or not to supplement soil nutrients, which nutrient products to use (synthetic fertilizers, organic fertilizers, organic amendments, soups and teas), what dosages are needed, and what application timing criteria are most relevant for landscape trees in all phases of life (younger or establishing trees versus fully mature trees). *John Lloyd*, Rainbow Treecare

Fungi and Diseases – Natural Components of a Healthy Forest

Native fungi and diseases are natural components of healthy forests that have many beneficial roles; however, under certain conditions periodic disease outbreaks can interfere with management objectives. Exotic pathogens have had profound effects on forest ecosystems and methods for the conservation and restoration of tree species impacted are needed. *Mike Ostry*, US Forest Service

Hazard and Danger Tree Felling and Cutting

This session will cover the special cutting techniques that can be used when working on storm damaged or hung up trees. We will look at working around these trees safely by being able to identify compression and tension wood, using pull lines to free hung up trees, and understanding mechanical advantage. *Sam Kezar*, Safety Consultant with Aspen Arboriculture Solutions and Instructor with North American Training Solutions

In a Changing World – The Role of Plant Exploration, Evaluation, and Introduction

It is predicted that the world climate will be changing rapidly. New pests and disease continue to be recognized. New plants, ones that are more adaptable, are needed more than ever. From a veteran plant explorer and collector, learn how plant exploration in remote parts of the world is as important as ever to meet these challenges. *Kris Bachtell*, Morton Arboretum

iThings for Urban and Community Forestry

Is there a place for iDevices (iPads, iPhones, & iPods) in our field? How are these devices already being used in Urban Forestry? We will look into this from both an operations side and community engagement perspective. This talk will show a number of useful "apps" for the tree profession. We will discuss mobile computing in general as a means of efficiency, including holding any number of resources at your finger tips. We will also

address: Will this Apple technology work with Microsoft files? How can I convince my IT folks that this is a good idea? What about GIS and inventories? In this time crunched, budget strapped environment, can these devices help get the job done? *Philip Potyondy*, Minneapolis Park and Recreation Board

Managing Mature / Neglected Fruit Trees in the Landscape

Topics will include managing mature apples, plums, pears, apricots; major pests and their management strategies; pruning and training goals, strategies, and techniques; and a variety of options for treating defoliators. *Jeff Johnson*, University of Minnesota Landscape Arboretum

Managing Urban Soils for Tree Health

Urban soils pose many challenges for the management and care of trees. This lecture will discuss the characteristics of urban soils. Secondly, strategies for addressing typical problems with urban soils will be presented. The presentation will cover research being conducted by the Morton Arboretum Soil Science laboratory pertaining to organic amendments for urban soils. *Bryant Scharenbroch*, Morton Arboretum

Mn/DOT'S Landscape Partnership Program

Through partnerships, Mn/DOT had fostered over 330 projects and \$7 million dollars worth of roadside landscaping improvements in communities while spending less than one third of that amount in State Highway Funds. Additionally, Mn/DOT benefits from an annual cost savings/avoidance of nearly \$1.75 million dollars for ongoing work necessary to maintain the landscape plantings. In the past few years, Mn/DOT's landscape partnership program and projects have received over 60 national and state awards. *Todd Carroll*, Minnesota Department of Transportation

Mysteries of a Minnesota Wild Elm Forest

How can it be? A wild forest dominated by three species of native elm is still prospering in Minnesota. Bring your curiosity and your thinking cap for a photographic trip through a delightful and especially unique Minnesota forest. *Mark Stennes*, S&S Tree Specialist

Reduction Pruning – Physics, Physiology, and Form

Storm damage can be lethal to trees large and small. Learn how combining basic physics principles and plant physiology creates this specialized pruning technique, which can successfully preserve trees and prevent large limb and trunk failure. In

Concurrent Sessions (in alphabetical order)

addition to improved structural integrity, proper reduction pruning accentuates natural form resulting in superior aesthetics. *Jeff Hafner*, Rainbow Treecare

REPEAT

The mnemonic device we use for disease resistance principles (with examples of practices) in the landscape (or if you are an army veteran, you may prefer to call “strategies” and with examples of “tactics”). After all, in fighting plant disease we are hoping to deter a very well equipped (or perhaps well evolved) and agile enemy! *Glen Stanosz*, University of Wisconsin

Sawflies, Caterpillars, and Beetles, Oh My! Conifer Defoliators in Minnesota

Defoliators are one of the most common and conspicuous groups of insect pests we find on trees in the landscape. In this session, we will discuss the common insect defoliators of pine, spruce, and other conifers. We will learn how to identify these insects and recognize their damage. We will look at their biology and see how that can influence their management. Finally, we will talk about pest management, examining the variety of options for treating defoliators. *Jeff Hahn*, University of Minnesota

Say It With a Map (Limited enrollment session)

Learn how to make online maps! This session will focus on basic map making using Google Maps. You do not need to be a GIS expert or purchase special software to make maps. Use maps to: describe the location of a stump in a park, show the planting locations for an upcoming planting event, or to share the locations of significant trees. You can even collaborate with others to make and edit your map information. Your maps can be printed and shared over the Internet. Even though your map is stored online, you can choose to keep it private. With no previous map making experience, you will leave this session having built an online map and will have the skills to continue communicating with maps. *Philip Potyondy*, Minneapolis Park and Recreation Board

Sustaining Trees

Trees and developing urban sites - Sustainable practices in planning, design, construction, and management all play parts in the long-term health and benefits of trees. Issues surrounding development in urban margins will be discussed addressing planning and preservation of sites. Discussion on these methods will show how to reduce maintenance while improving health for

large and small scale sites. *Nick Kuhn*, City of Albuquerque, New Mexico

The Aerial Environment: Common Incidents Among Climbers and Lift Operators and Emergency Response Requirements

The aerial environment is the domain for arborists but it is also an environment with many hazards and risks. This session will cover the most common risks associated with working in the canopy of trees as either a climber or lift operator and the standards that have been developed to minimize that risk. The session will also touch upon how ground crews should respond to an incident involving a worker aloft. *John Ball*, South Dakota State University

Tree Biology

You'd better get to the room early if you want to sit in on this session because chairs fill up fast when Janet Larson is talking about tree structure and function. This session is a necessity for those of you who are studying for the ISA Certified Arborist exam, want to become better dendrologists, or want to hone your tree problem-solving skills. *Janet Larson*, City of Minnetonka

Wanting to Become a Board Certified Master Arborist (BCMA)?

Join BCMA's Jay Maier and Jacob Ryg for a question and answer session on what it takes to become a BCMA. How much experience is required? What is the test like and how should you prepare for it? How do you maintain your status as a BCMA? *Jay Maier*, Maier Forest and Tree, and *Jacob Ryg*, City of Rochester, Minnesota

Wave of the Future: Municipal Tree Contracting

With government cutbacks now the norm, the future for cities is contracting out tree services. This session will cover the private and public sides of municipal tree contracting, what tree services cities contract, best how-to ideas for writing and bidding on and implementing municipal tree contracts, and why it's a win-win for cities and private tree services. City and private tree service perspectives will be represented. *Jim Vaughan*, City of Saint Louis Park, Minnesota, and *Jim Ostvig*, Ostvig Tree Care

What's Wrong With My Tree? In-the-Field Diagnosis

When identifying tree maladies, sometimes the problem is clear while other times the cause is elusive. In this session, we'll cover the six systematic steps of diagnosis, what to do when the cause is not so clear, and the top 10 most-common tree health problems in Minnesota. *Joe Zeleznik*, North Dakota State University

Map and Driving Directions to Bethel University

From North: Take I-35W south past I-694 to County Road E2 exit, turn left (east). Proceed to Old Snelling Avenue, turn right (south), and take first left into campus.

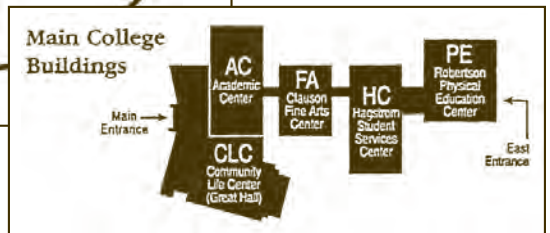
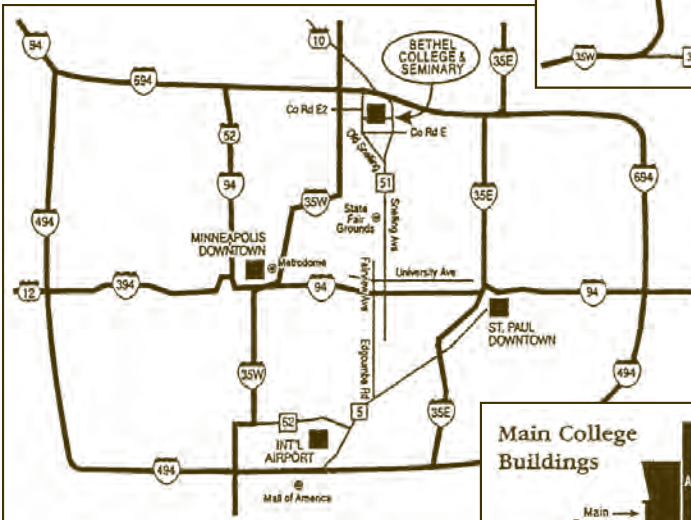
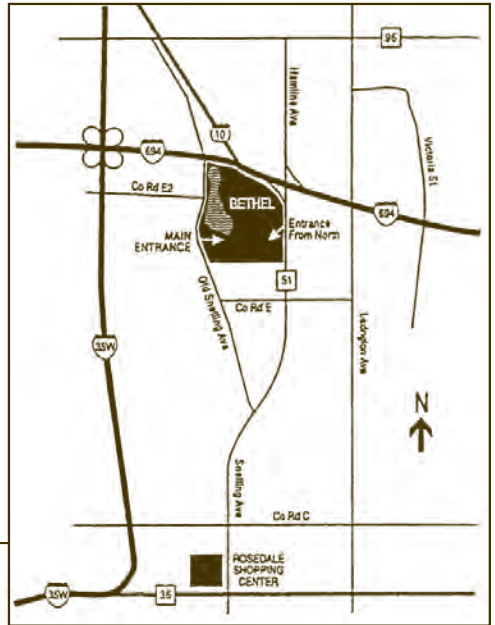
From West: From I-694, turn south onto I-35W to the County Road E2 exit. Go east to Old Snelling Avenue, turn right, and take first left into campus.

From East: From I-694 turn south onto I-35W to the County Road E2 exit. Go east to Old Snelling Avenue, turn right, and take first left into campus.

From South: Take I-35W north past I-694 to County Road E2 exit, turn right (east). Proceed to Old Snelling Avenue, turn right (south), and take first left into campus.

From Downtown St. Paul: Take I-35E north to I-694 west (see from East).

From Downtown Minneapolis: Take I-35W north to County Road E2 exit (see From South).



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 Coffey Hall, 1420 Eckles Avenue, Saint Paul, MN 55108-6069

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

Cancellations received up to five working days before the course are refundable, minus a \$30 cancellation fee. After that, cancellations are subject to the entire registration fee. Substituting another person for your registration can be made at any time provided we have a completed registration form for that person.

Registration Form

NR 0001
185016 hd

Shade Tree Short Course – March 15-16, 2011

Last Name First Name M.I.

Company/Institution

Title/Position

E-mail

Business Address

City State Zip

Daytime Telephone Fax Number

Occupation (please check one):

Corporate Public Employee Utility Student Other

Registration Fees

\$165 postmarked by March 1

\$180 postmarked after March 1

\$40 Student Rate (see requirements on page 4)

\$85 Tree Board/Park Board Member Rate (see requirements on page 4)

Additional Fees:

\$15 Say It With a Map session – Wednesday, March 16 – Limited number of spaces available

Please fill out your attendance plans:

I will attend the MSA picnic, Tuesday, March 15.

Payment Method

Check or purchase order made payable to the University of Minnesota

Bill my U of M EFS # _____

I authorize payment on my credit card:

VISA MasterCard American Express Discover/Novus

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Total Charge Cardholder Name (please print)

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The 49th Annual
**Minnesota Shade
Tree Short Course**

March 15-16, 2011

**Bethel University
Arden Hills, Minnesota**

Program Partners

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