**Minnesota Turf & Grounds Foundation**  
**Conference & Trade Show Schedule**

**Wednesday, December 9**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 - 8:45</td>
<td>CONFERENCE &amp; SHOW REGISTRATION</td>
</tr>
<tr>
<td>8:45 - 9:15</td>
<td>President’s Welcome / MTGF Update / Executive Director</td>
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<tr>
<td>9:20 - 11:00</td>
<td>Keynote Speaker TBA</td>
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<tr>
<td>11:00 - 4:30</td>
<td>TRADE SHOW OPEN</td>
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<tr>
<td>11:30 - 1:00</td>
<td>Lunch Available in Trade Show</td>
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<tr>
<td>2:30 - 3:20</td>
<td>Concurrent Sessions</td>
</tr>
<tr>
<td>3:20 - 3:30</td>
<td>Educational Pause</td>
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<td>3:30 - 4:20</td>
<td>Concurrent Sessions</td>
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</tbody>
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**SESSION 1**  
**RECREATIONAL TURF**  
*Topics for Mark Altman*  
*Altman & Altman Construction*  
*Room 208-AD*  

**Understanding Basic Soil Analysis for Golf and Sports Turf, Renovation vs. Construction**

This session will cover the basics of understanding a basic soil analysis, including major and minor nutrients, and their relevance to our own soil types. An introduction of the decision making process as to whether renovation or reconstruction is needed on any particular site will also be covered.

**3:30 - 4:20**  
**Sports Field Quality and Safety, Common Pitfalls When Building a New Field**

This session will cover the basics of the sports field construction process as well as highlighting those considerations that contribute to safe, high-quality playing fields.

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**SESSION 2**  
**GRASSES, BLUE AND BENT**  
*Topics for Dr. David Huff*  
*Penn State University*  
*Room 103-AF*  

**Kentucky Bluegrass for Home and Golf. Which is the Right Cultivar for You?**

There is an enormous amount of variation among Kentucky bluegrass cultivars. Dr. Huff will explore and explain this variation and how it impacts your cultivar choices.

**3:30 - 4:20**  
**Cultivar Development of Greens Type Poa Annua**

Dr. Huff will present an inside look at Penn State’s annual bluegrass breeding program specifically focused for application on golf course greens.

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**SESSION 3**  
**TREE MANAGEMENT FROM SEEDLING TO CHIP PILE**  
*Topics for Dr. Bob Miller*  
*University of Wisconsin – Stevens Point*  
*Room 211-AD*  

**Planting to Early Maturity**

Developing a proper root system, correct planting and follow up training and maintenance to grow a quality landscape tree.

**3:30 - 4:20**  
**Mid Life to Old Age**

Shifting management activities to ensure long term health, and care for old trees to protect your investment.

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**SESSION 5**  
**HORTICULTURE**  
*Topic for Jim Hagstrom, ASLA*  
*Savanna Designs, Inc.*  
*Room 212-AB*  

**Ecologically-Based Landscape Design**

This session will discuss the principals of sustainability and environmental ethics as they relate to landscape design. The question “What is natural?” will be addressed. Several completed projects that demonstrate varying levels of wildness will be reviewed and discussed.

**3:30 - 4:20**  
**Herbaceous Plants for Mass Plantings: Golf Courses, Parks, Cemeteries and Schools**

Knowing the characteristics of a perennial’s growth habit and their environmental tolerances are key to successful mass plantings. A variety of plant combinations will be presented along with their application to public sites.

*(Continued on Page 21)*
**Thursday, December 10**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:30 - 7:00</td>
<td>MDA Registration</td>
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<tr>
<td>7:00 - 8:00</td>
<td>MDA Turf and Ornamental Recertification, Rick Hansen, Coordinator</td>
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<tr>
<td>7:00 - 8:00</td>
<td>CONFERECE &amp; TRADE SHOW REGISTRATION</td>
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<tr>
<td>8:00 - 4:30</td>
<td>TRADE SHOW OPEN</td>
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<tr>
<td>8:10 - 9:10</td>
<td>Multiple Chemical Sensitivity, Fred Langley, RISE</td>
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<tr>
<td>9:00 - 9:10</td>
<td>Educational Pause</td>
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<td>9:10 - 10:00</td>
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<td>10:00 - 10:10</td>
<td>Educational Pause</td>
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<td>10:10 - 11:00</td>
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<tr>
<td>12:00 - 2:00</td>
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<tr>
<td>1:00 - 4:00</td>
<td>Aquatics Recertification</td>
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<td>2:00 - 3:30</td>
<td>“Bits”</td>
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<tr>
<td>10:10 - 11:00</td>
<td>Resistance to Turfgrass Disease</td>
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<td>11:10 - 12:00</td>
<td>Herbicide Use in Turf</td>
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**SESSION 1**

**LIMITING STRESS AND PESTICIDE USE: TREES**

*Topic for Dr. Nina Bassuk*
*Cornell University*
*Room 211-AD*
*9:10 - 10:00*

**Selecting Trees for Stress Tolerance**

The question “How do you start making appropriate tree selections for stress tolerance?” will be addressed. Topics include major issues related to successful tree selection and the circumstances where selection isn’t enough to insure success in the landscape.

*Topic for Gary Johnson*
*University of Minnesota Forest Resource*
*Room 211-AD*
*10:10 - 11:00*

**Use of Vertical Mulches to Improve Tree Health After Construction Damage to Trees**

Vertical mulching is a technique that has been used to maintain plant health in areas where surface mulching treatments are not practical or possible. The question “How effective is vertical mulching in helping trees recover from construction damage?” will be addressed.

*Topic for Dr. Nina Bassuk*
*Cornell University*
*Room 211-AD*
*11:10 - 12:00*

**Soil Modification and Transplanting**

Once one understands the important environmental constraints to healthy tree growth, you can use the two weapons you have: appropriate selection and soil modification. The questions “When is soil modification necessary?” and “What kinds of techniques can you use to deal with compaction and poor drainage?” will be addressed.

**SESSION 2**

**TURFGRASS**

*Topics for Dr. Nick Christians*
*Iowa State University*
*Room 103-AF*
*9:10 - 10:00*

**Pesticide Movement in the Soil Profile**

The movement of nitrogen, phosphorus, insecticides, herbicides, and fungicides were monitored in soil columns collected from field areas. Methods of reducing environmental risk for these materials on the golf course will be discussed.

*Topic for Dr. Julien Mercier*
*University of Minnesota Plant Pathology*
*Room 103-AF*

**SESSION 3**

**SOIL AND WATER**

*Topic for John Hines*
*Minnesota Department of Agriculture*
*Room 213-AB*
*9:10 - 10:00*

**Pesticide Impacts in Urban and Rural Watersheds**

Pesticide use is common in both urban and rural watersheds but the types of pesticides used vary. This presentation will cover the similarities and dissimilarities of pesticides found in surface waters of urban and rural watersheds.

*Topic for John Barten*
*Natural Resources*
*Room 213-AB*
*10:10 - 11:00*

**How Turf Management Practices Affect Water Quality**

This session will discuss the results of studies on the quality of runoff from golf courses and urban lawns. Data showing movement of phosphorus fertilizer off of turf areas will be presented. Turf management practices that reduce runoff and improve water quality will also be covered.

*Topic for Deb Pilger*
*Minneapolis Park & Recreation Board*
*Room 213-AB*
*10:10 - 11:00*

The Lake Harriet Watershed Awareness Project

The Lake Harriet Watershed Awareness project is a research project with two main purposes: 1) to inform urban homeowners about living in a watershed and, 2) to help them learn how their habits affect urban water quality. The project goal is to improve water quality by reducing pesticide and nutrient inputs to urban waters.

(Continued on Page 23)
SESSION 4

HEALTH AND SAFETY

Topic for Dean Herzfield
University of Minnesota Plant Pathology
Room 212-AB
9:10 - 10:00

IPM in Public Places: Pesticide Labels and Safety

There is a growing interest by the public and people who manage schools, parks, cemeteries and other public and semi-public turf and landscapes in pest management and pesticide use in public places. This session will provide a look at what is happening in Minnesota and ideas on how to connect IPM and plant health care, safety issues, the pesticide label, and the management of pesticides to turf and landscape pest management in public places.

Topic for Dr. Sherri Gahring
University of Minnesota Design Housing
Room 212-AB
10:10 - 11:00

Sun and Skin Cancer

Topic for Carol Houliston
Minnesota Poison Control Center
212-AB
11:10 - 12:00

How Not to Get Poisoned

This session will review the potential hazards from occupational and/ or casual contact with a variety of insecticides, herbicides and fungicides.

Aquatics Recertification — Room 210-AB (1:00-4:00 p.m.)

Minnesota Dept. of Natural Resources -- Steve Inger, Coordinator

This session qualifies for MDA Aquatics (Category F & APCA) recertification in 1999. Aquatic applicators must also attend morning session.

LIMITING STRESS AND PESTICIDE USE: TURF

Topic for Mike Kelly
Glenn Rehbein Companies
Room 208-AD
9:10 - 10:00

Soil Amendments for High Stress Areas

Topics included in this session are soil amendments for turf managers of golf courses, sports fields and parking lots. There are a number of things in our toolbox if we can determine what is expected and what are the use characteristics needed. For example, what are the stresses — compaction, wear, shade or just plain over-use? Possible amendments might be sand, rubber, Netlon Mesh Elements or Pavers.

Topic for John Trey Rogers III
Michigan State University
Room 208-AD
10:10 - 11:00

Turf in Shade

This presentation will cover specific grasses for shady areas as well as review management techniques for reduced light areas. Results from MSU Shade research will be highlighted.

Topic for John Hopko
Professional Turf
Room 208-AD
11:10 - 12:00

Cultural Practices

This session will discuss using proper species selection, cultural practices, maintenance techniques and timing of seeding to minimize pesticide applications. Also, turf establishment practices that fit your budget will be covered in this session.

Short 20-minute Summaries — Pick and Choose — Come and Go

<table>
<thead>
<tr>
<th>TIME</th>
<th>ROOM</th>
<th>SPEAKER</th>
<th>TOPIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:00 - 2:20</td>
<td>208-AD</td>
<td>Dr. Nick Christians</td>
<td>Research Update, ISU</td>
</tr>
<tr>
<td>212-AB</td>
<td>Mark Altmann</td>
<td>Micronutrient Fertility for Golf Greens I</td>
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<tr>
<td>211-AD</td>
<td>Dr. Don Taylor</td>
<td>Research Update: Late Fall Topdressing</td>
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<tr>
<td>209-AB</td>
<td>Gary Johnson</td>
<td>Research Update: Girdling Roots — Some Causes — Some Affects</td>
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<tr>
<td>Trade Show NE</td>
<td>Tom Dunlap</td>
<td>Pruning Trees</td>
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<td>Trade Show NW</td>
<td>Butch Greeninger</td>
<td>Plant Nutrient Systems &quot;Bio Pro&quot;</td>
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<td>Trade Show — Center</td>
<td>Vendors</td>
<td>New Product Showcase (5 minutes each)</td>
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<td>2:30 - 2:50</td>
<td>208-AD</td>
<td>Dr. Don White</td>
<td>Research Update: Poa Annua</td>
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<tr>
<td>212-AB</td>
<td>Mark Altmann</td>
<td>Micronutrient Fertility for Golf Greens II</td>
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<tr>
<td>211-AD</td>
<td>Dr. Nancy Ehike</td>
<td>Research Update: Bluegrass &amp; Ryegrass</td>
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<tr>
<td>209-AB</td>
<td>Robert Panusko</td>
<td>Golf Course Drainage</td>
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<tr>
<td>Trade Show NE</td>
<td>Tom Dunlap</td>
<td>Pruning Trees (repeat)</td>
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<tr>
<td>Trade Show NW</td>
<td>Kirby Burmeister</td>
<td>Hydraulic System Maintenance</td>
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<td>Trade Show — Center</td>
<td>Vendors</td>
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<td>3:00 - 3:20</td>
<td>208-AD</td>
<td>Dr. Ward Stewart</td>
<td>Research Update: Greens Covers</td>
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<tr>
<td>212-AB</td>
<td>Troy Carlson</td>
<td>MN NTEP Trial Results</td>
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<tr>
<td>211-AD</td>
<td>Brad Pedersen</td>
<td>Research Update: Low Input Turf Trials</td>
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<tr>
<td>209-AB</td>
<td>Brad Pedersen</td>
<td>University of Minnesota Horticulture Display &amp; Trial Garden</td>
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</tr>
</tbody>
</table>
Friday, December 11
(Continued from Page 23)

8:00 - 9:00 Registration
9:00 - 10:00 Managing Mature Trees, Dr. E. Thomas Smiley ............................ 103-AF
10:00 - 10:10 Educational Pause
10:10 - 11:00 Concurrent Sessions
11:00 - 11:10 Educational Pause
11:10 - 12:00 Concurrent Sessions
12:00 Close of Conference

SESSION 1

INFORMATION FOR TREE EXPERTS
Topics for Dr. E. Thomas Smiley
Bartlett Tree Research
Room 103-AF
10:10 - 11:00
Fertilization Standard for Trees
The new American National Standards Institute A300 Standard for Tree and Shrub fertilization will be discussed as well as insight into why the standard was established. The standard may change the way many arborists and landscapers bid on work and apply fertilizer. A must for those writing or bidding on fertilization.
11:10 - 12:00
Mycorrhiza Inoculations for Trees

SESSION 2

SOIL AMENDMENTS
Topics for Don Taylor
University of Wisconsin – River Falls
Room 103-AF
10:10 - 11:00
Organic and Inorganic Amendments for Use In Sandy Root Zone Mixtures
Various amendments are added to sand in developing root zone mixtures for sports turf and golf greens. This presentation will consider the properties of traditional and some new amendments and the results of sand/amendment mixes on water retention and compaction.
11:10 - 12:00
The Packing of Sand & Sand Amendment Mixtures
Sands pack in various ways. The influence of particle size, uniformity and the volume ratios of sand/amendment on the packing and consequently on compaction level will be considered in this presentation.

SESSION 3

DESIGNING PUBLIC SPACES
Topic for Peter Olin
Minnesota Landscape Arboretum
Room 213-AD
10:10 - 11:00
The Design Process I
Designing any space is a creative problem solving process. Setting goals, inventory and analysis of the site, developing the program of activities and determining space needs, design concepts, construction drawings, construction and ongoing maintenance make up the process.

SESSION 4

FINDING AND KEEPING GOOD EMPLOYEES
Topics for Ms. Sandy Cimmerer
Employers Assoc., Inc.
Room 212-AB
10:10 - 11:00
Hiring Employees in Tight Labor Markets
The shrinking skilled labor pool and very low unemployment create new challenges for employers. This session will suggest a new mindset needed to recruit in a tight labor market and cover both traditional and non-traditional methods to attract and hire quality employees.
11:10 - 12:00
Retaining Employees in Tight Labor Markets
Today, the quality of your workforce can be one of your best competitive advantages — so keeping good employees is essential. This session will look at the costs and reasons for turnover and cover the key components of a successful retention strategy to reduce turnover.

SESSION 5

TURF GROWTH AND TOLERANCE
Topics for Dr. John Troy Rogers III
Michigan State University
Room 208-AD
10:10 - 11:00
Growth Regulators on Putting Greens
This presentation will discuss research regarding the use of plant growth regulators on putting greens to improve green speed and turf quality. The session will cover results from PGR interactions with other typical green management techniques.
11:10 - 12:00
Extended Turf Life Throughout
Improved Wear Tolerance Techniques
This session will center around techniques to reduce wear on turfgrass and improve turf quality. Research results and field experiences will be highlighted.