## Thursday, December 10

- 6:30 7:00 MDA Registration
- 7:00 8:00 CONFERENCE & TRADE SHOW REGISTRATION
- 8:00 4:30 TRADE SHOW OPEN
- 9:00 9:10 Educational Pause
- 9:10 10:00 Concurrent Sessions
- 10:00 10:10 Educational Pause
- 10:10 11:00 Concurrent Sessions
- 12:00 2:00 Lunch Available in Trade Show
- 1:00 4:00 Aquatics Recertification
- 2:00 3:30 "Bits"

## SESSION 1

## LIMITING STRESS AND PESTICIDE USE: TREES

Topic for Dr. Nina Bassuk

Cornell University Room 211-AD

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

10:10 - 11:00

## **Resistance to Turfgrass Disease**

Disease resistance is a proven tool for disease management and has been useful in reducing the impact of certain turf diseases. The two main types of genetic resistance, horizontal and vertical, will be discussed as well as their use in turfgrasses. Induced disease resistance will also be discussed.

> Topic for Dr. Nick Christians Iowa State University Room 103-AF 11:10 - 12:00

11.10 - 12.00

## Herbicide Use in Turf

This presentation will include a basic discussion of preemergence and postemergence herbicides in turf. Current research and a discussion of the effectiveness of new materials will also be presented.

## 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 213AB

## The Lake Harriet Watershed Awareness Project

The Lake Harriet Watershed Awareness project is a research project with two main purposes: 1) to inform urban howeowners 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)

**OCTOBER 1998** 

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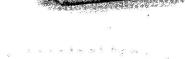


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## Thursday, December 10-

(Continued from Page 21)

## **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 Dep't. 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.

### SESSION 5

## 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 mangers 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 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.

## From the Minnesota Department of Agriculture

The MDA is pleased to work with the MTGF to provide the last pesticide applicator recertification opportunity for 1998. Again this year we are offering recertification for Category A, General Ground and Category E, Turf & Ornamentals on Thursday, December 10 from 7:00 a.m to noon. You must be present for the entire morning program to receive recertification credit. The MDA reserves the right to deny credit to applicators that do not attend the entire program. Attendance will be taken with a card system.

Applicators may also recertify in Category F, Aquatics or the Aquatic Pest Control Applicators (APCA) license if they attend the morning session and the Thursday afternoon aquatics session from 1:00 pm.-4:00 pm. This recertification session qualifies aquatic applicators, Category F and APCA, for license renewal in 1999. For more information about whether or not you need to attend this pesticide recertification workshop, please contact Wayne Dally at (612) 297-2746 or fax (612) 297-2271.

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

TIME	ROOM	SPEAKER	TOPIC
2:00 - 2:20	208-AD	Dr. Nick Christians	Research Update, ISU
	212-AB	Mark Altman	Micronutrient Fertility for Golf Greens I
	211-AD	Dr. Don Taylor	Research Update: Late Fall Topdressing
	209-AB	Gary Johnson	Research Update: Girdling Roots - Some Causes - Some Affects
	Trade Show NE	Tom Dunlap	Pruning Trees
	Trade Show NW	Butch Greeninger	Plant Nutrient Systems "Bio Pro"
	Trade Show - Center	Vendors	New Product Showcase (5 minutes each)
2:30 - 2:50	208-AD	Dr. Don White	Research Update: Poa Annua
	212-AB	Mark Altman	Micronutrient Fertility for Golf Greens II
	211-AD	Dr. Nancy Ehlke	Research Update: Bluegrass & Ryegrass
	209-AB	Robert Panuska	Golf Course Drainage
	Trade Show NE	Tom Dunlap	Pruning Trees (repeat)
	Trade Show NW	Kirby Burmeister	Hydraulic System Maintenance
	Trade Show - Center	Vendors	New Product Showcase (5 minutes each)
3:00 - 3:20	208-AD	Dr. Ward Stienstra	Research Update: Greens Covers
	212-AB	Troy Carson	MN NTEP Trial Results
	211-AD	Brad Pedersen	Research Update: Low Input Turf Trials
	209-AB	Brad Pedersen	University of Minnesota Horticulture Display & Trial Garden

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## Friday, December 11

(Continued from Page 23)

8:00 - 9:00	Registration	
9:00 - 10:00	Managing Mature Trees, Dr. E. Thomas Smiley	F
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 mixtures 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. Topic for Roger Martin Minnesota Landscape Arboretum **213-AD** 

## The Challenges of Open Space Design II

When designing a major project one can encounter many problems which must be overcome or turned into opportunities. The impact of automobiles, over programming, the lack of spatial organization, standardization, misplaced activities, detailing and others are concerns that must be resolved in any good design.

### 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 attact 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 Trey 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.



26 • HOLE NOTES

OCTOBER 1998

## Poa Annua Reptans – Creeping Bluegrass

By DONALD B. WHITE and TROY D. CARSON

University of Minnesota

The first commercially available creeping bluegrass cultivar is now available for purchase. It has been named 'DW-184.' 'DW-184' is a dense, upright, dark green turf that holds its color even under extremely low nutrient levels. Once established, it produces very few flowers and for only a short time in the spring. 'DW-184' has also displayed good resistance to a variety of diseases.

Now that the initial goal of producing a high quality *Poa annua reptans* has been met, the Creeping Bluegrass Breeding Project continues to work on developing other new cultivars with still improved disease resistance, reduced flowering and winter hardiness.

Numerous creeping bluegrass trials continue to be evaluated. One of the selections in the trials has not flowered for two consecutive years. Another trial will be initiated this spring with a portion of a sand green constructed in 1997 to be seeded with new creeping bluegrass selections from the breeding program.

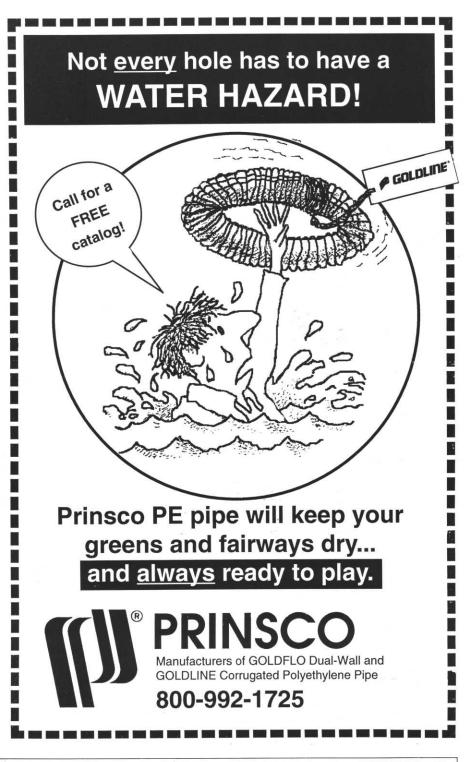
You can visit our web site for more information about the breeding project and 'DW-184.' You may visit our web site at: http://www.hort.agri.umn.edu/cbg/cbhome.htm

## Creeping Bluegrass And Creeping Bentgrass Competition – Compatibility

The turfgrass population on golf course greens is continuously changing in adapting to the changing environmental conditions. Most greens have a mixed population of creeping bentgrass and Poa annua. Each species seems to perform better in particular niches and during different periods of the growing season. Since it seems inevitable that most greens will have a mixed population, we have initiated research to track population changes over time and to ascertain compatibility of creeping bluegrass and creeping bentgrass mixed seedings. One objective of this research is to identify population ratios that result in high quality turf.

The first planting was seeded on native

soil, topdressed with sand, in the fall of 1997 with mixtures consisting of two creeping bentgrasses and three creeping bluegrasses in ratios of 100:0, 75:25, 50:50, 25:75 and 0:100, by seed count. A second seeding, on a sand green, is planned for the spring of 1998 with two creeping bentgrasses and two creeping bluegrasses using the same ratios.



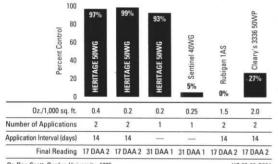
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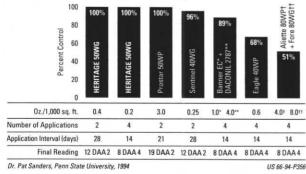
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Anthracnose<sup>1</sup> (Colletotrichum graminicola) on 80% Annual Bluegrass, 20% Perennial Ryegrass



Dr. Don Scott, Purdue University, 1995 I Also isolated from plots: 2 species Rhizoctonia; 3 species Pythium; and several species Curvu US 67-95-P354

Brown Patch (Rhizoctonia solani) on Colonial Bentgrass



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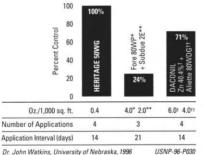


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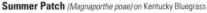
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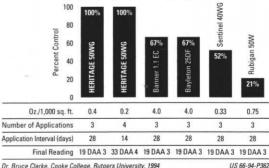
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Dr. John Watkins, University of Nebraska, 1996





Dr. Bruce Clarke, Cooke College, Rutgers University, 1994



CHANGING THE COURSE OF DISEASE CONTROL

## Ward Stienstra To Retire From Position In the Department of Plant Pathology

After 28 years of dedicated extension education and research activities Ward Stienstra is retiring from his position in the Department of Plant Pathology, University of Minnesota Extension Service. His career achievements will be celebrated on Friday, October 23, 1998 in 306 Borlaug Hall, from 5:00-8:00 p.m. The celebration includes a social hour, followed by a light dinner and short speeches from colleagues Ward has worked with over the years. You are invited to attend. We will present Ward with a bound book of remembrance letters from colleagues, students and friends. We urge you to send your letter on 8½ by 11-inch paper, with a 1½-inch left hand margin to Ms. Debbie Baden Drange, Department of Plant Pathology, 495 Borlaug Hall, University of Minnesota, St. Paul, MN 55108, before Friday, October 16, 1998.

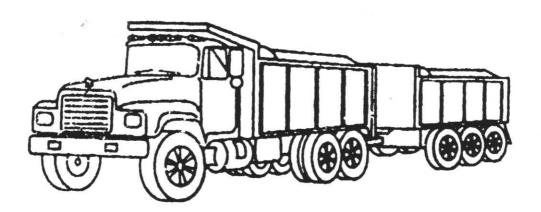
If you wish to make a monetary contribution toward a gift for Ward Stienstra's retirement, please send it to Debbie Baden Drange, Checks should be payable to the Department of Plant Pathology.

Please join us in celebrating Ward's career, accomplishments and life in the Department of Plant Pathology, and with the University of Minnesota Extension Service.

Please R.S.V.P. by Friday, October 9 if you plan to attend by calling (612) 625-6290 or e-mail:

ddrange@extension.umn.edu





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