

new jersey turfgrass association



clippings &

Green
World



Summer 2009 | VOL 73

**Help Us Kick Off
NJTA's 40th Anniversary!**

New Jersey

**GREEN
EXPO**

Turf and Landscape Conference

**Celebrating 40 years of Industry Partnership
with Rutgers University at the
34th Annual Expo & Conference
December 8-10, 2009**

Turf Equipment & Irrigation Solutions



Storr Tractor Company
Branchburg, NJ
908-722-9830

One great result.

visit www.toro.com

TORO®

Count on it.

President's Message

by Dr. Karen Plumley, NJTA President

The Accidental Plant Pathologist

I didn't set out to become a plant pathologist. In fact, there was a time in my life when I didn't even know what one was and I'm quite sure my high school guidance counselor, Mrs. Dickson, didn't know either. So how does it come to pass that someone finds a career that they didn't even know existed? In a word, chitchat.

Circa 1981, I was a typical, directionless, Rutgers undergraduate with a strong desire to be a scientist, but no clear plan about how to turn that interest into a paying occupation. What I did know, however, was that I wanted more time in my totally overscheduled life to chitchat with my best friend, Cheryl. We had a plan to accomplish our goal: take a laboratory class together that would allow us to be lab partners with three scheduled hours to chitchat each week (we figured we could work in the lab around the chitchat).

It was a brilliant plan, but there was a catch. The only lab class that fit in both of our schedules was....wait for it..... mycology. Mycology? Really? Who cares about fungi? But we were (and still are) best friends and we had a plan. So with mycology as our only option, we registered together and accomplished to perfection our short term goal of weekly, scheduled chitchats. Post graduation, Cheryl went on to become a marine biologist and never much thought about fungi again (except, of course, for the occasional loaf of moldy bread...). For me, however, it was a life changing event that happened to me completely by accident. It just so happened that my mycology professor, Dr. John Maiello, is one of those inspiring professors that students just adore because he genuinely enjoyed teaching. And boy did he love fungi! He began that first class the same way I came to begin my classes when I later taught plant pathology: "You can't take the 'fun' out of FUNgi". I became a believer.

As my junior year drew to a close, I spent hours in his office discussing how to incorporate my love of science and my new love of fungi into a career. Dr. Maiello was the first person who ever suggested to me that I should pursue a career as a plant pathologist. He helped me select a graduate program and set on my current career path. So what's the moral of the story?

continued on pg 4

Table of Contents

Clippings

President's Message	3
From the Executive Director	4
2009 NJTA Patrons	4
2009 Field Days - Way to Go!	5
Where R. U.?	8
Understanding Product Labels	9
Field Days 2009 Pictures	12, 18, 20
GREEN EXPO Registration Form	13
NJTA Hall of Fame Award	14
New Jersey Green Businesses are Under Attack	15
Donate to Silent Auction	16
Rutgers County Extension Contacts	17
NJTA Membership Application	19
Calendar of Events	23

Green World

What About Colonia Bentgrass for your Fairways? Stacy Bonos, Ph.D. 6

CHANGE YOUR RECORDS
TO REFLECT OUR ACCURATE
MAILING & BILLING ADDRESS.

As of 3/1/09, do not use the address below:
PO Box 340, Milltown NJ 08850

All Mail should go to:

NJTA

**25 US Highway 46 West
Wayne NJ 07470-6801**



**New Jersey
Turfgrass
Association**

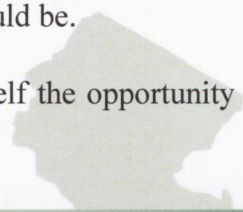
25 US Highway 46 West
Wayne, NJ 07470-6801
Phone: (973) 812-6467
Fax: (973) 812-6529
www.njturfgrass.org

President's Message

continued

Opportunity. You never know when or where or how the door of opportunity might open to you.

Who knew that my desire to spend three hours each week with my best friend would open the door to a career? I certainly didn't, so don't be held back thinking about how your life should be.

Look around. Allow yourself the opportunity to see what it could be. 

PATRONS

*Clippings & Green World would like to
THANK
our Patrons for their continued support.*

*Add your name and/or business name
to a growing list of supporters:*

- DeLalio Sod Farms Inc - Len DeLalio
- DuPont Professional - Karen Hartman
- F.M. Brown's Sons, Inc. - Marie Pompei
- Pocono Turf Supply - Chris Zelle
- Stephen Kay Golf Design - Stephen Kay
- Syngenta - Lee Kozsey

Call (973) 812-6467
to become a Patron
or email:
execdirector@njturfgrass.org
RATE: \$100.00
for one or more 2009 issues.

Thinking Ahead...

by Cece Peabody, MAT, CMP,

NJTA Executive Director




Summer is over?? Yes, it's true, much as we'd like to extend it at least 11 more sunny weekends (that's the number of weekends we had rain). So...what's next?


Start thinking ahead to the next event you could benefit from attending. The next NJTA event is the GREEN EXPO Turf and Landscape Conference - December 8-10, 2009, returning to the Taj Majal in Atlantic City. This is not only the 34th year of this expo, it is also the kickoff of the celebration of the 40th Anniversary of the New Jersey Turfgrass Association and our partnership with Rutgers University. There will be some excitement at this year's show!

At GREEN EXPO, we'll demonstrate ways to enhance the value of your business. Through compelling educational content and vibrant trade show connections, you'll quickly confirm that your attendance is essential to the success of your business.

Your ROI (Return on Investment) is very measurable...in knowledge gained, in credits earned, in friendships made and renewed, in equipment seen...and much more.

Be part of the Silent Auction this year - both in providing a product or service, and in buying. Where can you spend \$200 (3 day cost for members), get a hotel room for \$74 a night, and walk away with so much value?

GREEN EXPO! Think ahead and plan to be there. 



Fisher & Son
COMPANY, INC.
The "Green Industry" Supplier since 1928.
Superior Products for the
Turf and Horticultural Professional!

Tom Currie
Tom Defino
Randy Rider

800.262.2127

110 Summit Drive
Exton, Pennsylvania 19341
800.262.2127 * fax 610.363.0563
fisherandson.com

Andersons

BASF

Bayer

Civitas

EarthWorks

Grigg Brothers

Lebanon

Lido Chem

Plant Health Care

PROKoZ

Redox

Syngenta

TriCure

2009 Field Days -- Way to Go!

by Pedro Perdomo
Field Days Chairman

The best field day in the country just gets better and better. Seven hundred twenty five (725) attendees were present this year making this the second best showing ever for the field days. We expanded the topics and attained pesticide credits from even more states which brought in many people from outside of New Jersey. There were 17 states at the Golf & Fine Turf Day (Tuesday) and 12 states were represented at the Lawn, Landscape, and Sports Fields Day (Wednesday). Attendees from Canada were at an all time high with 27 in attendance on Tuesday. Overall, 28% of the attendees were from out of state - a growing trend.

The growing season this year has been interesting to say the least. With lower temperatures and plenty of rain, many pest problems were almost non-existent. But we got lucky and a warming trend brought summer patch, anthracnose, and dollar spot to the plots making pathologists happy. Single products, tank-mixes, and rotations were all on display giving the turf care provider great insight as to product choice and use. Brad Park, Sports Turf Education & Research Coordinator, had to battle summer patch last year on his Kentucky Bluegrass Seasonal Wear Trial. A preventive program took care of that, but this year it was dollar spot that was showing up on susceptible varieties.

We realize that economic times could be better, so we continue to assist Rutgers in modifying and improving these two-day events to make sure attendees get the most out of the entire day. We modified the daily schedules this year in an effort to make the events more informative. For instance, core credits which are hard to come by, were offered at an early bird core session during the Tuesday Golf and Fine Turf Day. The same class was offered at the end of the Golf and Fine Turf Day. Core was also offered at the end of the Lawn, Landscape, and Sports Field Day.

www.njturfgrass.org

Layout of the Sports Field Managers Association of New Jersey's trade show on Wednesday made it easier for attendees to visit with vendors and peruse the many products being displayed. The well-received equipment trade show and demonstrations were once again incorporated into the educational stops.

Additionally this year we added ice cream to the lunch menu which was an immense hit (move over brownies). A brand new Silent Auction component to both days was rolled out, and nearly \$1900.00 in donations was received. Proceeds from the silent auctions are given to the New Jersey Turfgrass Foundation and will be used to further support the research at Rutgers.

The event was sponsored in part by **Bayer ES, Grass Roots, and Storr Tractor** were once again generous lunch sponsors. **Vic Gerard Golf Cars** carried the much coveted water and the ice cream was courtesy of **Aer-Core. Dupont, Gowan, Stephen Kay Design, and Syngenta** were General Sponsors, and many others supported the field day directly or indirectly through their donations of products for the maintenance of the research farms. Their support is greatly appreciated.

We are always interested in hearing what you have to say about the Field Days and any comments or suggestions that you may have. We can only get better by hearing from you.

Feel free to contact Cece Peabody, NJTA Director, at execdiretor@njturfgrass.org and share your thoughts. And -- please contact Cece if you are interested in becoming a Field Day Committee member for 2010. We always welcome fresh ideas.

Thanks for attending and making these two days successful! 🍀

Rutgers Turfgrass Research Field Days.. A Big Winner!



Green World

What About Colonial Bentgrass for Your Fairways?

Stacy Bonos, Ph. D
Rutgers University,
New Brunswick, NJ 08901

Applied Turfgrass Research from Rutgers, the State University, and the New Jersey Turfgrass Association

Last year we saw how high energy prices influenced the costs of almost everything including fuel, fertilizer, grass seed, and pesticides. This year, the recession has caused us to 'tighten our belts' and spend less. These circumstances may have got many of you thinking 'How can I cut costs?' Additionally, pesticide, fertilizer and water restrictions in certain areas have increased the emphasis on reducing inputs and conserving natural resources. With all that in mind, you may want to consider colonial bentgrass for your fairways.

Creeping bentgrass (*Agrostis stolonifera*) is currently the most widely used bentgrass for golf courses. Its prostrate growth habit and ability to produce vigorous spreading stolons, allow it to tolerate low cutting heights and quickly recover from damage. This makes creeping bentgrass a good choice for golf course putting greens in the cool-temperate and in some cases the warm-humid climates. However, creeping bentgrass, as a species, is very susceptible to dollar spot disease (caused by *Sclerotinia homoeocarpa* F.T. Bennet) and typically requires regular fungicide applications and high inputs (cultural practices) for acceptable quality.

Dollar spot disease is probably the most common disease on golf course turf in the northeastern U.S. Although, breeders have developed creeping bentgrass cultivars with improved resistance they still may require several fungicide applications per year. Colonial bentgrass (*Agrostis capillaris*) generally has better tolerance of dollar spot disease than creeping bentgrass (Figure 1).

Figure 1: Dollar spot disease resistance of colonial bentgrass (left) compared to the dollar spot susceptibility.



Colonial bentgrass also known as brown top, has traditionally been used as a lawn and golf course grass in areas of Northern Europe and New Zealand that have mild (cool humid) summers. Compared to creeping bentgrass, colonial bentgrass has a more upright growth habit and spreads by short rhizomes instead of stolons. In addition to differences in growth habit, colonial bentgrass also differs in genetic color. Colonial bentgrass ranges from light to medium green while creeping bentgrasses typically range from medium green to a dark blue-green color (Figure 2).

Figure 2: Color differences of colonial bentgrass compared to creeping bentgrass. Colonial bentgrass plots have a bright medium green color compared to the dark blue-green color of creeping bentgrass plots.



Additionally, colonial bentgrass typically retains more green color during winter compared to creeping bentgrass. Colonial bentgrasses also do not accumulate thatch as aggressively as creeping bentgrass cultivars with high shoot density. High density creeping bentgrasses may require adjustments in management practices including increased topdressing and cultivation (aeration, verticutting, and grooming) to manage thatch development. Colonial bentgrasses typically do not require aggressive cultural management inputs. Additionally, it has been documented that colonial bentgrass exhibits faster recovery from drought stress compared to creeping bentgrass (DaCosta and Huang, 2007; DaCosta and Huang, 2006). The drought recovery, reduced maintenance requirements and increased dollar spot resistance of colonial bentgrass make it an interesting choice for golf course fairways during a time where environmental conservation, using lower inputs and energy conservation are on the minds of many people.

However, colonial bentgrass does have a major weakness affecting its use in temperate areas of the US. It is susceptible to brown patch disease (caused by *Rhizoctonia solani* Kühn) (Figure 3). Brown patch can cause some loss of turf density on creeping bentgrass mainly during the months of July and August, but severe damage from brown patch disease is unusual on creeping bentgrass in the northeastern and northcentral U.S. Colonial bentgrass cultivars, however, are quite susceptible to brown patch disease and loss of turf density (damage) can be strongly evident during the months of June through September.



Figure 3: Brown patch disease of colonial bentgrass.

It has been the goal of the breeding program at Rutgers for the past 12 years to improve the brown patch resistance in colonial bentgrass so that it may be more useful as a potential grass for fairways and tees. Prior to this research, there were no studies conducted on the inheritance of brown patch resistance in colonial bentgrass. It is important to understand how disease resistance is inherited in

continued on page 7

What About Colonial Bentgrass for Your Fairways? continued

Stacy Bonos, Ph. D.
Rutgers University,
New Brunswick, NJ 08901



order to optimize selection procedures. Traits can be inherited in different ways. Qualitative inheritance typically involves one (or a few) genes that confer complete resistance and are not strongly influenced by the environment. Quantitative inheritance involves a large number of genes that confer partial resistance and are strongly influenced by the environment. If brown patch is inherited qualitatively, then selection could be conducted in one environment possibly with limited replications. If brown patch is inherited quantitatively then steps need to be taken to determine the extent of environmental influence on the disease compared to the genetic influence. It also would typically require evaluation in a number of environments with multiple replications. Preliminary research on brown patch resistance in tall fescue indicates that resistance may be quantitative (Simmons and Hamblin, 2002; Bonos et al., 2004; Bokmeyer et al., 2006). We have previously shown that dollar spot resistance in creeping bentgrass is most likely quantitatively inherited (Bonos et al., 2003; Bonos, 2006).

We have been investigating several selection techniques to improve brown patch resistance in colonial bentgrass. Selecting plants based on turf plot evaluations has only resulted in moderate improvements in brown patch resistance. However, we have found that selecting plants based on mowed spaced-plant evaluations has resulted in greater improvements in disease resistance compared to turf plot selection.

Individual colonial bentgrass clones from new European collection sources and progeny plants from 7 controlled crosses between tolerant and susceptible parents were planted into a stand of perennial ryegrass in the fall of 2001. The mowed-spaced plant trial was maintained at 1.9 cm (3/4 in). Tolerant and susceptible parent plants were planted with three replicates. All plants were inoculated with a mixture of two different brown patch isolates isolated from colonial bentgrass.

The isolates were grown on sterilized Kentucky bluegrass seed and applied with a drop spreader at approximately 0.25 g m⁻². Brown patch disease was evaluated weekly after symptoms began to develop using a 1-9 scale,

9 representing least brown patch disease and 1 representing completely susceptible. The symptoms occurred approximately two weeks after inoculation. After two full seasons of brown patch disease pressure, significant differences in brown patch disease among colonial bentgrass clones was evident.

From this trial we found that susceptible parents were not significantly more susceptible than the tolerant parents. Tolerant x tolerant crosses were not more tolerant than tolerant x susceptible crosses. These results indicated that brown patch resistance is significantly affected by the environment and suggests that inheritance is quantitative.

The colonial bentgrass clones with high levels of disease resistance in the mowed-spaced plant trial were selected and moved to isolated crossing blocks and allowed to inter-pollinate (*Figure 4*). Seed was harvested individually from each plant to establish single progeny turf plots. Additionally, equivalent amounts of seed from each plant were bulked to make a composite in order to establish replicated turf plots in the fall of 2007.



Figure 4: Isolated crossing block of colonial bentgrass.

Entries in the turf plot evaluation trial included standard cultivars and experimental selections from numerous turfgrass breeding programs. Entries in each test were seeded using a maximum of 0.22 g m⁻² (1.3 lb per 1000 ft²) of seed. The trial was maintained at approximately 0.48 cm (3/16-in) cutting height. The trials were rated throughout the growing seasons for turf quality (color, brightness, leaf texture, density, uniformity, and amount of disease and insect damage) and brown patch disease. The turf trial was not inoculated with the brown patch pathogen. All disease outbreaks were a result of natural infection.

continued on pg 11

Where R.U.?

Mission Statement:

*"The New Jersey Turfgrass Association's mission is to promote the Turfgrass Industry and enhance the environment through education, professionalism, leadership, and our partnership with **Rutgers**, the State University of New Jersey."*

In 2010, the NJTA will celebrate its 40th Anniversary. Since the "**Rutgers** Partnership" is part of our mission, we want to know the status of the R.U. alumni. Whether it was a Certificate, B.S., Master's or Ph.D, we want to know "Where R.U.?" We are planning to launch the 40th Anniversary celebration at the 34th Annual GREEN EXPO Turf & Landscape Conference at Trump Taj Mahal on December 8th-10th, 2009. This Expo will highlight the long tradition of the NJTA and Rutgers working together. We want the alumni to be a part of it.

Please fill out the info below and:

- **Fax** it to the NJTA at (973) 812-6529
 - **Mail** it to the NJTA at 25 U.S. Highway 46 West, Wayne, NJ 07470-6801
 - **Email** it to execdirector@njturfgrass.org
-

Name: _____

Year of Graduation: _____

Check all that apply:

☐ **Certificate** ☐ **Bachelor's Degree** ☐ **Master's** ☐ **Ph. D**

Major: _____

Club/Company: _____

Address: _____

Telephone: _____

Fax: _____

Cell: _____

Email: _____

Home Address: _____

Home Telephone: _____

If you have any question, please contact Keith Kubik at Keith.Kubik@GrassRootsTurfOnline.com

R.U. Rah! Rah!

Understanding Product Labels

Reviewing Labels Improves Product Performance

*By Michael Kropp, Senior Sales Specialist,
BASF Professional Turf & Ornamentals*

It happens all the time. Someone buys a new herbicide, fungicide or insecticide, skims through the product label and files it away until it's time to use the product. When that time comes, he or she flips to the portion of the label that shows the recommended rates. No big deal, right?

Beyond the date of purchase, most people don't spend a lot of time reading product labels. Familiarizing yourself with a label when you buy the product is a good idea, but so is re-reading the label before putting the product to use. Doing so can save a lot of time, money and hassle.

Look for Five Key Things

Most people using fungicides, herbicides and insecticides only ask themselves, "What product do I need to control the weed, insect or disease that's causing me a problem and what rate do I need to use?" Rate information is essential, but product labels provide a lot of other important information. Here are five key things to look for on product labels:

1. Tank Mixing

Most labels have a tank mixing section, which includes what you can and cannot tank mix with a particular product. Using several products in one application is a common practice in the industry. It's vital to read the tank mixing section because some products shouldn't be used together. Ignoring tank mixing guidelines can cause problems like clogged application equipment and reduced efficacy.

Perhaps just as important is mixing order, which is also detailed on product labels.

The basic rule of thumb is that dry materials need to be mixed first, followed by liquids. But rather than assuming this is always the case, it's recommended that users follow the label closely when mixing products.

2. Special Statements

Products often have special statements on the label to help users utilize the product correctly. For instance, many products include statements about what the outside temperature should be when a product is used. If the label says not to apply the product if it's warmer than 85 degrees outside, and you do, it could cause damage to the plant.

Other common special statements refer to drying time. Applying a product prior to a rainfall when the product label states that six hours of drying time is necessary is a pretty expensive mistake.

3. Group Numbers

The front page of many product labels includes a group number, which helps users avoid resistance issues with fungicides, herbicides and insecticides. Products are grouped based on how they work (mode of action) and users are encouraged to vary group numbers of products in an effort to better manage resistance.

For example, if after using a fungicide in Group 1 you have concerns about resistance, use a product with a different group number in the next application.

4. Agricultural use requirements

The agricultural and non-agricultural use requirements on product labels are important for users and vary depending on product use.

A greenhouse or nursery employee, for instance, may use the same product as a golf course superintendent or lawn care employee, but has to abide by a completely different set of rules with regard to protective equipment and re-entry interval.

5. General restrictions and limitations

An often overlooked element of product labels is the "general restrictions and limitations" section, which is also known as "do not" statements. A "do not" statement is a strong declaration that needs to be followed.

Continued on pg 10

Understanding Product Labels...continued from previous page

For example, a product might have “Do not apply in greenhouses” on the label because the product is volatile and could move through the air to plants, causing foliar damage.

Read the “do not” statements carefully and be sure to brush up on them if it’s been a while since you last used a product.

General suggestions

Though it’s unnecessary to continually read and re-read the label for a product that you use several times a year, it’s a good idea to take some time now and again to re-familiarize yourself with product labels.

Labels change periodically, so it makes sense to re-view commonly used product labels about once a year. The best place to obtain current labels is www.cdms.net.

The 10-15 minute investment of reading a label can save a lot of time and hassle compared to the fallout of misusing a product. ➤

Michael Kropp is a senior sales specialist with BASF Professional Turf & Ornamentals in the Pacific Northwest and can be reached at (916) 591-0580 or via e-mail at michael.kropp@basf.com.

The Rutgers Plant Diagnostic Lab

The Plant Diagnostic Laboratory provides accurate and timely diagnoses of plant problems.

Below is a sample of services performed:

- ▶ Disease and Insect Pest Diagnosis
- ▶ Plant and Weed Identification
- ▶ Insect Identification
- ▶ Fungus and Mold Identification
- ▶ Nematode Assays
- ▶ Screening for Neotyphodium Endophytes
- ▶ Fungicide Resistance Screening
- ▶ Other Services Available by Contract

For more information please call us at 732/932-9140 or visit the web for sample submission instructions and forms at:
www.rcrc.rutgers.edu/plantdiagnosticlab.



The Rutgers Soil Testing Lab

The Rutgers Soil Testing Laboratory performs chemical and mechanical analyses of soils.

The following services are routinely performed:

Landscape

- Level 1** Fertility Test: Nutrients, pH, recommendations
- Level 2** Problem Solver (soil/plant suitability test)
- Level 3** Topsoil Evaluation

Greenhouse

Saturated (Organic) Media Extract Analysis: Nutrients, pH, electrical conductivity, inorganic nitrogen

Sport Turf

- Level 1** Fertility Test: Nutrients, pH, recommendations
- Level 2** Complete Test: Nutrients, pH, estimated CEC & cation saturation, soluble salt level, organic matter* content, soil textural class
- Level 3** Sand Root Zone Test

*Organic matter content would be determined by loss-on-ignition for golf course greens, as described by USGA guidelines.

For more information please call us at 732/932-9295, or visit us on the web at:
www.rcrc.rutgers.edu/soiltestinglab.

www.rcrc.rutgers.edu/services

What About Colonial Bentgrass for Your Fairways? continued from pg 7


Stacy Bonos, Ph. D
Rutgers University,
New Brunswick, NJ 08901

The mowed-spaced plant selection technique has resulted in dramatic improvements in brown patch resistance in colonial bentgrass. The experimental selections developed using this technique (DSH, MGD, PCC, DGD) had higher brown patch ratings than standard cultivars that were not selected for brown patch resistance (Glory, Tiger II, SR 7100, Alister, and SR 7150) (Table 1) (Figure 5). This data indicates that this technique is effective in improving brown patch resistance.



Figure 5: Colonial bentgrass cultivars selected for brown patch resistance compared to susceptible cultivars.

This technique was also used to evaluate new collection sources of colonial bentgrass, for brown patch disease. We have identified over 150 colonial bentgrass plants from 20 European collection sources with improved brown patch resistance. The addition of new sources of resistance helps to maintain the genetic diversity of the species and may increase the durability of resistance. These new European sources of brown patch resistance have been crossed with colonial bentgrasses used in the Rutgers breeding program that are adapted to our climate here in the US. These new experimental selections of colonial bentgrass are able to maintain very good quality even in the presence of heavy brown patch disease pressure.

The results reported here indicate that new colonial bentgrass cultivars, selected for improved brown patch resistance should be useful on fairways where reduced inputs are anticipated. The Rutgers turfgrass breeding program will continue to select and improve colonial bentgrass for this purpose. These newly developed cultivars can maintain acceptable quality with limited fungicides, they can recover from drought stress quickly and they do not accumulate thatch aggressively and therefore do not require excessive cultural practices to reduce thatch accumulation. These attributes make colonial bentgrass an attractive alternative to creeping bentgrass for superintendents interested in reducing inputs and conserving energy on golf course fairways. 

References

- Bokmeyer, J., W.A. Meyer, and S.A. Bonos. 2007. Genetic inheritance of brown patch resistance in tall fescue. In Agronomy Abstracts. A.S.A., Madison WI
- Bonos, S.A. 2006. Heritability of dollar spot resistance in creeping bentgrass. *Phytopathology* 96:808-812.
- Bonos, S.A., M.D. Casler, and W.A. Meyer. 2003. Inheritance of dollar spot resistance in creeping bentgrass. *Crop Science*. 43:2189-2196.
- Bonos, S.A., E. Watkins, and W.A. Meyer. 2004. Heritability of brown patch resistance in tall fescue. In Agronomy Abstracts. ASA, Madison, WI.
- DaCosta, M. and B. Huang. 2007. Drought survival and recuperative ability of bentgrass associated with abscisic acid and cytokinin production. *J. Am. Hort Sci.* 132(1):60-66.
- DaCosta, M., and B. Huang. 2006. Changes in carbon partitioning and accumulation patterns during drought and recovery for colonial bentgrass, creeping bentgrass, and velvet bentgrass. *J. Am. Soc. Hort. Sci.* 131:484-490.
- Simmons, K.L. and A.M. Hamblin. 2002. Inheritance of brown patch resistance in tall fescue. Agronomy Abstracts. ASA, Madison, WI.



Service ♦ Technical Support ♦ Quality Products

- Pesticides, Adjuvants & PGR's
- Fertilizers, Lime & Seed
- Mulches & Soils
- Topdressing & Amendments
- GC Accessories & Landscape Tools

Golf Division
Phone: 973-252-6634
Fax: 973-252-6630
4 Middlebury Blvd., Suite 7
Randolph NJ 07869



Lawn & Sports Turf Division
Phone: 973-252-5455
Fax: 973-252-2881
4 Middlebury Blvd., Suite 14
Randolph NJ 07869



www.grassrootsturfonline.com

Field Days 2009 : Golf and Fine Turf, Tuesday, August 4th



A great Learning Day!

GREEN EXPO



2009 ATTENDEE REGISTRATION FORM

December 8, 9 & 10, 2009

Trump Taj Mahal Casino & Resort • Atlantic City, NJ

The New Jersey Turfgrass Association (NJTA) proudly presents the New Jersey GREEN EXPO Turf & Landscape Conference, in cooperation with the: Golf Course Superintendents Association of NJ (GCSANJ), Sports Field Managers Association of NJ (SFMANJ), and Rutgers University/School of Environmental and Biological Sciences (SEBS).

— ATTENDEE INFORMATION —

Use this form for yourself and your spouse. Duplicate this form for additional registrants, and provide complete information for each registrant. Thank you.
Download additional forms at www.njturfgrass.org.

Today's DATE _____
Name (PRINT CLEARLY) _____
Company Name _____
Title _____
Mailing Address _____
City _____ State _____ Zip Code _____
Ph # _____ Fax # _____
E-mail _____
Confirmation sent via email
Spouse Name: (PRINT CLEARLY) _____

— BUSINESS CATEGORY —

Check All that Apply:

☐ Golf Course ☐ Lawn Maintenance
☐ Cemetery ☐ Lawn Care Applicator
☐ Sod Producer ☐ Landscape Contractor
☐ Parks & Recreation ☐ Landscape Designer
☐ Irrigation ☐ Manufacturer/Supplier
☐ Schools & Athletic Fields ☐ Other _____
☐ Student ☐ Professional (Architect, University)

— HOTEL RESERVATIONS —

\$74.00 Discounted Room Rates in NJTA Room Block for 2009.

Reservations for GREEN EXPO 2009 must be handled directly through Trump Taj Mahal Casino-Resort. Please call (800) 825-8888 and provide Registration Code **ANJTA09**. Cut-off date for discounted rates is November 13, 2009. Reservations made after this date are based on space availability and prevailing hotel rates.

— NJTA MEMBERSHIP —

New Jersey Turfgrass Association

Membership Year: January 1, 2010 - December 31, 2010

Are you a: _____ NEW or _____ RENEWAL Member?

- ☐ Individual (1) Member @ \$ 80.00
☐ Business Membership @ \$275.00 (Up to 4 names in Company)

Name 1: _____ Email _____
Name 2: _____ Email _____
Name 3: _____ Email _____
Name 4: _____ Email _____

— REGISTRATION CHOICES —

Friday, November 13, 2009 is final date to register using this form.

After this date, you must register ONSITE at the GREEN EXPO Registration Desks.

Did you attend the 2008 Expo? _____ YES _____ NO • There is NO Trade Show on Tuesday

*Food Functions include: Lunch on Wednesday;
Lunch & Drinks at Trade Show Wednesday & Thursday;
Other Receptions & Hospitality Suites - By Invitation*

	MEMBER RATE	NON-MEMBER RATE	TOTAL FEE
ONE (1) DAY: Education, Trade Show, Food Which Day? ____ Tues (No Trade Show) ____ Weds ____ Thurs	\$ 100	\$ 125	\$ _____
TWO (2) DAYS: Education, Trade Show, Food Which Days? ____ Tues (No Trade Show) ____ Weds ____ Thurs	\$ 150	\$ 200	\$ _____
THREE (3) DAYS: Education, Trade Show, Food Tuesday, Wednesday, and Thursday (*Non-Member Rate includes (1) Membership for 2010)	\$ 200	\$ 280*	\$ _____
SPOUSE BADGE: (Entire Event) Spouse Name _____	\$ 50	\$ 75	\$ _____
TRADE SHOW ONLY: (Inc. Food & Sessions in TS) All Attendees WEDS <u>or</u> THURS All Attendees BOTH WEDS <u>and</u> THURS Which Day/s? ____ Wednesday ____ Thursday	\$ 50 \$ 90	\$ 50 \$ 90	\$ _____ \$ _____

— TOTALS: REGISTRATIONS & MEMBERSHIP —

TOTAL REGISTRATIONS \$ _____

TOTAL NJTA MEMBERSHIPS \$ _____

TOTAL DUE \$ _____

Payment Information: Please Print Clearly

Check. Check Number # _____
Purchase Order # _____ (include paperwork)
Credit Card: _____ Visa _____ MasterCard _____ AMEX

Card No. | _____ | _____ | _____ | _____ |

Expiration Date (Month/Year) _____ // _____

Security Code: _____ *3 digit security number on back

**Payment cannot be processed without these security code numbers.*

Billing Address (# only if different) _____ Zip _____

Cardholder's Name _____

X Signature _____

CHECK: Make Payable to NJTA • **CREDIT CARD:** Fax, Register Online, or Mail

New Jersey Turfgrass Association

25 US Hwy 46 W, Wayne, New Jersey 07470-6801

Phone: (973) 812-6467 • Fax: (973) 812-6529

F.E.I.N.: 23-7453656

Web: www.njturfgrass.org • Email: execdirector@njturfgrass.org

Register Online at: www.njturfgrass.org

Final Deadline Date for Receipt of this Registration Form is November 13, 2009. After this date, everyone must register ONSITE. Cancellations received prior to November 13, 2009 will be assessed a \$50 cancellation/processing fee. We regret that NO REFUNDS will be granted after November 13, 2009. **Register Online:** www.njturfgrass.org

MAIL TOP COPY to GREEN EXPO Office • KEEP SECOND COPY • Date Received: _____

NJTA'S HALL OF FAME AWARD

by Keith Kubik

The New Jersey Turfgrass Association's Hall of Fame Award is "presented annually to a person in recognition of a continuing lifetime commitment of dedication, service, and achievements contributing to the advancement of the turfgrass industry of New Jersey." This award was first given in 1974. As the NJTA nears our 40th anniversary in 2010, we felt it was appropriate to highlight the past winners of our highest award. The following is a reprint from the "New Jersey Turfgrass Association 10th Anniversary Commemorative Book (1980).

Eberhard Steiniger (1979)

"When Pine Valley's Eberhard Steiniger "retired" as Golf Course Superintendent in late 1979, he vacated a title he had held for 52 years. His conscientious efforts during those years played a large role in developing Pine Valley which gained national as well as international prominence as one of the world's outstanding golf courses. Eb was among the earliest Golf Course Superintendents to experiment with the adaptation of "new" turfgrass varieties. He was instrumental in selecting and developing C-7 Cohansey strain of creeping bentgrass. In 1980, Eb received the United States Golf Association's Green Section Award for "service to golf through work in Turfgrass Management." In 1976, at the 50th Anniversary of the Golf Course Superintendents Association of America, Eberhard Steiniger was named recipient of the Outstanding Service Award. His vast storehouse of turfgrass knowledge and experience is frequently "tapped" in an advisory capacity as well as a speaker in Conference programs. For over forty years, Eb has served the Borough of Pine Valley as its Police Chief. For some time now, Eb has also been serving as President of the Laurel Springs Savings and Loan Association. In his "retirement status" his deep interest and love for Pine Valley continues in providing valuable guidance."



Eberhard Steiniger

NEW JERSEY'S GREEN BUSINESSES ARE UNDER ATTACK

Fight back or be left behind!

Did you know?

We are facing the loss of key products that help us manage the environment. Efforts to ban phosphorous applications are many! Legislation is in the works to make it illegal to apply proper amounts of phosphorous in New Jersey. Reliable, tested pesticides too are under attack! Business as we know it will no longer be if we don't get involved. Help us educate and fight back!

What is at risk?

- We will lose the ability to apply phosphorus and other products!
- Our businesses are in jeopardy!
- Our industry and our jobs are being threatened!

How to act now?

There are several ways we can become active to ensure a sound future for the green industry. Get involved by supporting those who fight for our rights!

One way to support is to donate products to the **Green Industry Silent Auction**, being held during the Trade Show on **December 9 & 10** at the **GREEN EXPO**. Another is to become a member of the **New Jersey Green Industry Council**, our watchdog group in Trenton.

Why participate?

By donating products and services, and participating in the Silent Auction, you join the fight to preserve jobs and to stop bad legislation from dictating our business' decisions. Donating is an easy way to help in the on going battle to prevent New Jersey's green industry from being handicapped with emotion based laws. Your participation is needed to help raise funds to support those that are working for us!

What are the benefits of participating?

- Help NJGIC educate law makers in Trenton
- Secure an avenue of outreach and education on legislative and regulatory issues
- Give your company recognition as a supporter of the Green Industry
- Provide exposure of your company to over 1000 attendees at New Jersey GREEN EXPO
- Provide an opportunity for people to try your product (s) or service (s)

When is the Silent Auction?

The Silent Auction will be held during the Trade Show at the New Jersey GREEN EXPO in Atlantic City, December 9 -10, 2009.

Don't wait another minute - Act Now!

To donate today contact **Marney Dorsey, NJGIC Fundraising Chair**.
Email: mhdorsey@dow.com, Office: (856) 885-6345 or Fax: (800) 560-4260.

Another way to help - Join NJGIC Today!

Take the time to become involved because our voices matter.
Become a member of NJGIC.

For more information visit www.njgic.org or call 908-334-3361 to learn more.



DO YOUR PART!

Participate in the Green Industry Silent Auction!

The list keeps growing...

MATERIALS OF TRADE

- Merit Mini Drum
- Kinetic HV Surfactant
- Battleship Herbicide
- Kickstand PGR
- Dimension 2EW Specialty Herbicide
- Earthworks Replenish Natural Organic Fertilizer
- Gary's Green Ultra Fertilizer
- Griggs Brothers PK GEN2 Stemix Plus
- Emerald Isle CPR True Foliar
- TriCure AD Soil Surfactant
- Roundup QuickPro
- Roundup ProMax
- PHC Bio Pak Plus
- Divot mix
- CoreTect Insecticide Plant Growth Enhancer
- Drive XL Herbicide
- Trinity Fungicide
- Arbor Green Pro 30-10-7
- Bolster Granular 4-4-4 +3Fe
- UpStar SC Bifenthrin Golf and Nursery
- Quincept Herbicide
- 4-Speed XT Selective Herbicide
- Escalade 2 Selective Herbicide
- Mallet 2F Insecticide
- Hydra-Hume DG Coated T&O

EQUIPMENT

- ArborSystems Direct Inject Combo Kit with Pointer and Iron NutriBooster
- Lesco Spreader 80 lb capacity
- Stihl Backpack Blower
- Chainsaw

EDUCATION

- Allied association memberships

ELECTRONICS

- Golf GPS device

SERVICES

- Tree Work - Arborist Crew (3 Men) for a Day
- \$500 gift certificate for new tree or lawn service

SPORT ITEMS

- Golf threesomes with lunch included
- Golf foursomes available with and without lunch
- Golf Apparel, Shirts, Windshirts, Glove
- Rutgers Sports Tickets
- Tickets to various Sporting events
- Golf equipment and supplies

ENTERTAINMENT

- Various DVD movies

GIFT CERTIFICATES

- Restaurants

It's not too late to donate!

Add your items to the list by contacting NJGIC today!

To donate contact:

Marney Dorsey, NJGIC Silent Auction Chair

Email: mhdorsey@dow.com

Office: (856) 885-6345

Fax: (800) 560-4260



Customize your
nutrition program
AND reduce your
budget!



Create your own program using
Contec DG with the TNT (turf
nutrition tool) program calculator.
You can download it FREE at
www.ContecDG.com.
See how you can provide MORE
baseline nutrition and reduce
your nutrition budget!

Contec DG[®] Dispersing Granule Technology

Dissolves into
the turf within
10 minutes
after contact
with moisture.



- Eliminate mower pickup
- No golf ball or shoe pickup
- Reduces player downtime

Contact Seeton Turf, Fisher & Son
Co., Terre Company, or your
Andersons territory manager
John Pope 215-441-8420



RUTGERS EXTENSION OFFICES & NUMBERS

RCE of Atlantic County	(609) 625-0056
RCE of Bergen County	(201) 336-6780
RCE of Burlington County	(609) 265-2900
RCE of Camden County	(856) 566-2900
RCE of Cape May County	(609) 465-5115
RCE of Cumberland County	(856) 451-2800
RCE of Essex County	(973) 228-2210
RCE of Gloucester County	(856) 307-6450
RCE of Hudson County	(201) 915-1393
RCE of Hunterdon County	(908) 788-1339
RCE of Mercer County	(609) 989-6830
RCE of Middlesex County	(732) 398-5262
RCE of Monmouth County	(732) 431-7261
RCE of Morris County	(973) 285-8307
RCE of Ocean County	(732) 349-1246
RCE of Passaic County	(973) 305-5742
RCE of Salem County	(856) 769-0090
RCE of Somerset County	(908) 526-6293
RCE of Sussex County	(973) 948-3040
RCE of Union County	(908) 654-9854
RCE of Warren County	(908) 475-6505



HR-9016 TURBO™



AR-3™



JACOBSEN
A Textron Company

When Performance Matters.™

Wilfred MacDonald, Inc
19 Central Boulevard
South Hackensack, NJ 07606
888-831-0891
www.wilfredmacdonald.com

Field Days 2009 : Golf and Fine Turf, Tuesday, August 4th



*From interns to researchers
to superintendents...all work
together...*



MISSION: To promote the Turfgrass industry and enhance the environment through education, professionalism, leadership, and our partnership with Rutgers, The State University of New Jersey.

Individual or Business Partner Information *(Please Print Clearly)*

Primary Member Name: _____
Company Name: _____
Title: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____ Fax: _____
E-Mail: _____

Business Partner: Additional Member Information

Please complete. If needed, use another sheet for 5 or more members.

1. Name: _____	Phone: _____	Fax: _____
E-Mail: _____		
Address: _____		
City, State, Zip: _____		
2. Name: _____	Phone: _____	Fax: _____
E-Mail: _____		
Address: _____		
City, State, Zip: _____		
3. Name: _____	Phone: _____	Fax: _____
E-Mail: _____		
Address: _____		
City, State, Zip: _____		

New Jersey Turfgrass Association MEMBERSHIP APPLICATION

Please Select a Membership Level below:

- ☐ I - Business Partner \$ 275.00 (Up to 4 members) ☐ III - Individual Member \$ 80.00 (1 person)
☐ II - Addtl Business Partner (5 or more) Each is \$ 60.00 ☐ IV - Student Member \$ 20.00 (1 person)
Renewal _____ New

Benefits of NJTA Membership

- * Savings on GREEN EXPO & Field Days Registration Fees
- * Opportunities to earn Pesticide Applicator License Credits
- * Clippings Quarterly Newsletter
- * Outreach & Education impact in Trenton
- * Access to Education & Research at Rutgers
- * Membership Directory
- * Support of Rutgers University's Turf program and facilities
- * Website: www.njturfgrass.org
- * Marketing Opportunities in NJTA publications
- * Participate in events that raise scholarships for the NJ Turfgrass Foundation

Which category best describes your business or profession:

- ☐ Golf Course
- ☐ Lawn Care Applicator
- ☐ Landscape/Lawn Maintenance
- ☐ Cemetery
- ☐ Irrigation
- ☐ Sod Producer
- ☐ Parks & Recreation
- ☐ Schools & Athletic Fields
- ☐ Manufacturer/Supplier
- ☐ Professional (Architect, University)
- ☐ Student
- ☐ Other _____

Payment Information

Check (payable to NJTA) _____ Visa _____ MasterCard _____ AmEx _____

Account #: _____ 3 Digit Security Code: _____

Exp. Date: (MM/YY): _____ // _____

Name on Account: _____

Authorized Signature: _____

NJTA Annual Dues (January 1 - December 31): \$ _____

NJ Turfgrass Foundation Contribution: \$ _____

Outreach & Education Contribution*: \$ _____
(*This portion is non-deductible.)

Total Amount Enclosed: \$ _____

Mail to: 25 US Highway 46 West
Wayne NJ 07470-6801
Phone: (973) 812-6467

Fax to: (973) 812-6529
E-Mail: execdirector@njturfgrass.org
Web Site: www.njturfgrass.org

Cecce Peabody, MAT, CMP
Executive Director
Updated 9/2009

Field Days 2009 : Lawn, Landscape & Sports Field Managers Day , Wednesday August 5th

**RUTGERS
TURFGRASS RESEARCH
FIELD DAYS**

THANK YOU!

AER-CORE
Ice Cream Sponsor

VIC GERARD GOLF CARS
Golf Carts

DUPONT COMPANY
General Sponsor

GOWAN
General Sponsor

STEPHEN KAY & DOUG SMITH
GOLF COURSE DESIGN
General Sponsor

SYNGENTA
General Sponsor

**RUTGERS
TURFGRASS RESEARCH
FIELD DAYS**

Thank You!

We appreciate the
generosity of

Bayer E S

Grass Roots

Storr Tractor

for sponsoring
Today's LUNCH!

**RUTGERS TURFGRASS RESEARCH
FIELD DAYS**

Thanks to the Companies below
for their extensive product/equipment
contributions over the last year.

- BASF Corporation
- Bayer Environmental Science
- Bernhardt Corporation
- Cleary Chemical Corporation
- Foley Corporation
- GCSANJ / GCSANJF
- John Deere Company
- NJTA / NJTF
- Phoenix Environmental Care
- SePRO Corporation
- Storr Tractor
- Syngenta



What About Colonial Bentgrass for Your Fairways? continued from pg 11

Stacy Bonos, Ph. D., Rutgers University, New Brunswick, NJ 08901

Table 1. Performance of creeping and colonial bentgrass cultivars and selections in a fairway/tee trial seeded in September 2007 at North Brunswick, NJ.

Cultivar or Selection	Species	Brown Patch 2008 -1-9 scale†-	Turf Quality 2008 -1-9 scale†-
1 TDN2 Comp	Creeping	8.4	6.9
2 Shark	Creeping	7.7	5.3
3 PRO AS-1 HTM	Creeping	7.6	6.2
4 IS-AP 15	Creeping	7.6	5.9
5 007	Creeping	7.6	6.4
6 FAC Comp	Creeping	7.5	5.9
7 SRX1WM	Creeping	7.4	6.1
8 SR 1150	Creeping	7.3	5.1
9 PST-OETD Bulk	Creeping	7.3	3.6
10 RH 12-8	Creeping	7.1	5.2
11 Runner	Creeping	6.8	4.9
12 PST-OLTD Bulk	Creeping	6.8	3.0
13 Independence	Creeping	6.7	5.2
14 Pennlinks II/Penneagle II	Creeping	6.7	5.1
15 13M	Creeping	6.6	5.5
16 RH 5-24	Creeping	6.6	5.5
17 Ninety-Six Two	Creeping	6.5	4.2
18 Declaration	Creeping	6.5	6.0
19 RH 3-4	Creeping	6.5	5.8
20 007/SR 1150/Mackenzie	Creeping	6.4	5.9
21 Tyee	Creeping	6.4	5.2
22 007/SR 1150/Tyee	Creeping	6.4	5.6
23 RH 13-4	Creeping	6.3	5.0
24 Sandhill	Creeping	6.1	5.0
25 DSH Comp	Colonial	6.1	5.4
26 007/Mackenzie/Tyee	Creeping	6.1	5.3
27 Penn A-4	Creeping	6.1	4.8
28 Penn G-1	Creeping	6.1	4.8
29 Penneagle II	Creeping	6.0	4.8
30 MGD Comp	Colonial	5.9	5.5
31 Mackenzie/Tyee	Creeping	5.8	5.1
32 Cobra 2	Creeping	5.5	5.5
33 SR 1150/SR 1119	Creeping	5.5	5.0
34 Penn A-1	Creeping	5.5	5.2
35 T-1	Creeping	5.4	4.8
36 Benchmark DSR	Creeping	5.4	5.6

What About Colonial Bentgrass for Your Fairways? continued from pg 21

Stacy Bonos, Ph. D., Rutgers University, New Brunswick, NJ 08901

37	PST-Syn-9DTM	Colonial	5.4	5.1
38	LS-44	Creeping	5.4	4.8
39	SR 1119	Creeping	5.3	4.2
40	PCC Comp	Colonial	5.3	4.6
41	CY-2	Creeping	5.2	5.6
42	DGD Comp	Colonial	5.2	5.2
43	Memorial	Creeping	5.1	5.5
44	Mackenzie	Creeping	5.1	4.2
45	Southshore	Creeping	4.9	4.2
46	Kingpin	Creeping	4.8	5.3
47	IS-AT 8	Colonial	4.8	5.0
48	Alpha	Creeping	4.8	4.0
49	L-93	Creeping	4.5	4.3
50	Penncross	Creeping	4.5	3.6
51	EBM - FTO	Colonial	4.5	4.7
52	PST-Syn-9HO	Colonial	4.4	4.8
53	TDN1 Comp	Creeping	4.1	4.8
54	PRO AT-1 BCD	Colonial	4.1	4.2
55	Glory	Colonial	3.5	4.4
56	Providence	Creeping	3.4	3.6
57	Brighton	Creeping	3.3	3.7
58	SR 7100	Colonial	3.2	3.8
59	PST-Syn-9DTE	Colonial	3.2	4.3
60	Tiger II	Colonial	3.2	4.3
61	SRX7EE	Colonial	3.1	3.6
62	PST-9BNC	Colonial	2.6	4.2
63	Alistar	Colonial	2.5	4.1
64	SR 7150	Colonial	2.0	3.5
LSD at 5% =			1.3	0.8

† Brown patch and turf quality were rated on a 1-9 scale, where 9 = least disease or best turf quality. A quality rating of 5 was considered acceptable turf quality.

CALENDAR

2009 NJTA Events

*Tuesday, December 8th -
Thursday December 10, 2009*
34th Annual Green Expo
Taj Mahal Resort
Atlantic City NJ

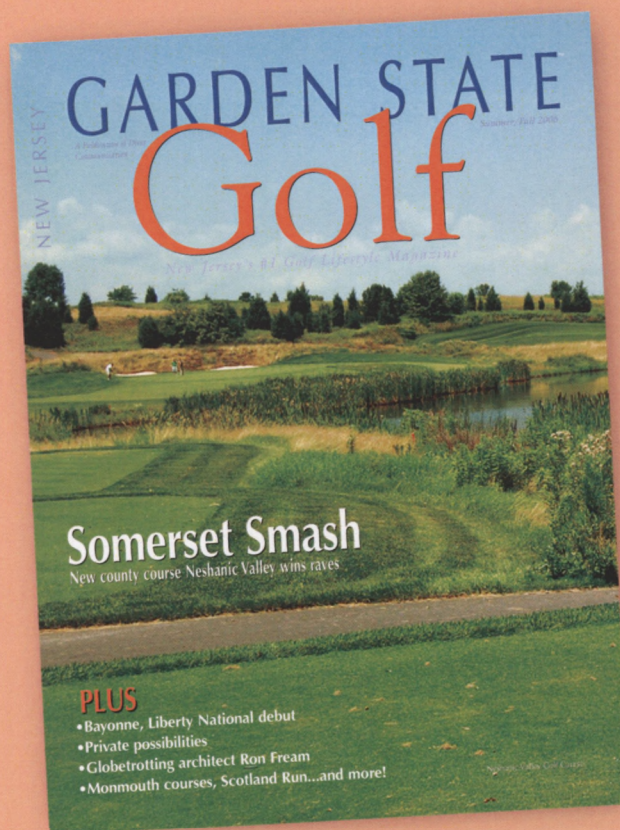
**Help Us Kick Off the
40th Anniversary
Celebration of
NJTA'S Partnership with
Rutgers University!**

Additional Events

*Tuesday, November 10 -
Thursday November 12, 2009*
**6th Annual GCSANJ
Crystal Conference**
Crystal Springs Resort
Hamburg NJ
For info: www.gcsanj.org

GARDEN STATE GOLF Magazine & Divot Communication

Proudly Support
New Jersey Turfgrass
Association



Official Magazine of



For Advertising Information
Contact Us - 800-639-1941
www.playnortheastgolf.com

new jersey turfgrass association



clippings

Green
World



First Class Mail
U.S. Postage
PAID
Wayne, NJ
Permit #347

New Jersey Turfgrass Association

25 US Highway 46 W • Wayne, NJ 07470-6801

Phone (973) 812-6467 • Fax (973) 812-6536

Email: execdirector@njturfgrass.org • Website: www.njturfgrass.org

2009 Board of Directors

Dr. Karen Plumley, President

Keith Kubik, Vice President

Matt Sweatlock, Treasurer

Shaun Barry, Director

Patrick Dolan, Director

Brian Feldman, Director

Dennis Granahan, Director

Rick Krok, Director

Pedro Perdomo, Director

Thom Ritchie, Director

Shannon Sked, Director

Michelle Williams, Director

Chris Carson, Immediate Past President & Expo Chairman

Dr. Bruce Clarke, Advisor

Dr. Jim Murphy, Advisor

Richard Buckley, Advisor

Cece Peabody, MAT, CMP, Executive Director

*****AUTO**3-DIGIT 079

James T. Snow

U.S. Golf Association

PO Box 708

Far Hills NJ 07931-0708

