new jersey turfgrass association

clippings

Green & World

njta

Summer 2008 | VOL 70

2008 RUTGERS TURFGRASS RESEARCH FIELD DAYS

Photos Courtesy of Jerry Schoonmaker

President's Message

by Dr. Karen Plumley, NJTA President

The lessons of the fall harvest.

School's back in session, fall is around the corner and to me it somehow feels that the annual cycle has begun again. Other people may feel like New Year's Day or the first day of spring is the beginning of the new year, but I have always felt it was the beginning of fall (maybe it's all those years I spent in school…). From my earliest memories, September was always the time when my sister and I got new clothes, set new goals, made new friends. It was a time for new beginnings, for taking stock of where you were and making plans to get where you wanted to be. To me each year culminates in the arrival of summer, the high point of any year: backyard barbeques, vacations, long days and warm nights. All rested and refreshed, we look to fall as the time to get back to the books and back to work. For me the summer ends with the fall harvest: a time of plenty, of reaping what you have sown, of preserving the harvest and preparing to begin the cycle anew.

Recently, my local newspaper had a front page article in the Lifestyle section about home canning making a comeback. People cite all kinds of reasons for the resurgence: quality, cost, family time. They are all lessons I learned long ago. Raised a Jersey girl, I didn't grow up canning and preserving food, but after marriage to a Pennsylvania farm boy that all changed. But more important than the taste of summer fresh corn served alongside our Easter ham, it is in the fall harvest where I think some of life's most profound messages reside.

Sometimes the extra effort really is worth it. All of us lead complicated, overscheduled lives, but there are times when that little extra effort pays dividends many times over. Is it a lot of work to hull strawberries, prepare and package them for storage? Absolutely. But as anyone who's ever put fresh strawberries in their freezer in June and pulled them out in January knows… Is it worth it? Absolutely.

Planning ahead makes all the difference. In a world where our days are sometimes scheduled down to the minute, planning ahead is the only way to make it through. Picking apples, turning them into sauce and canning them for the coming year takes time. You need to plan for it.

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President's Message..

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But if you've ever eaten applesauce made from just apples and water (no corn syrup, no fillers, etc) you know it's worth planning for and making time for. Everyone has something in their life that they never seem to have time for. Identify those things and plan ahead to make them happen. You'll be glad you did.

It's not about the destination so much as it's about the journey. I read that somewhere, but it's true. Life is about the journey, not the destination. So enjoy the journey. Turning pounds of tomatoes into spaghetti sauce can be fun when you do it with family or friends. After you finish making the sauce, throw together a simple spaghetti dinner and enjoy your handiwork.

Just because it's work, doesn't mean it can't be fun.

2008 Patrons

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Send that Tale....

by Cece Peabody, MAT, CMP,
NJTA Executive Director

We're looking to add another dimension to our Clippings newsletter...a column or two that focuses on our members too. We do a great job bringing you research articles and sharing our major events -- but this association would be nothing without its members -- each and everyone one of you.

Tell us your favorite turfgrass experience, or fun story, or even an oddity...something that made you go hmmmm, or laugh heartily, or showed you a new twist on something old, or made you run back to work and say...wow, was that great!

It could even be a story that you write about someone else who has done something wonderful in the industry. There actually are no limits to this...the point is that

You Are Important!

And we want to hear from you, about you, and about your experiences.

In order to accomplish this new dimension about tales from the members, we need to hear from you. We need to have you jot something down in an email, or on paper to fax or mail in -- if you are reading this right now and think of something... do it now!

You'll get a byline..your name and company listed next to the article.

If you feel you'd be better suited to submit an article about something more serious in the turfgrass world, then by all means, send me that too. We'll do any spiffing up if needed, although anything written from the heart is usually just perfect.

I am thanking you in advance...I want my email and fax and mailbox to be flooded with your tales....go for it!

Cece

GREEN EXPO is COMING!

by Chris Carson

The 33rd annual Green Expo is all set for December 9-11 at the Taj Mahal Hotel in Atlantic City, and this year's show is filled with education, credits, and good times. A few highlights:

- **Credits, Credits, Credits**... many NJ, PA, MD, DE, CT pesticide recertification credits will be available, and we've also applied for –and expect- NY credits as well. GCSAA PDI credits will also be offered.

- **Education**... a comprehensive Educational Program, with over forty sessions, will focus on all of the turfgrass and landscape disciplines. Local, national, and internationally known industry and university leaders will be presenting important information that you can use to make your operation better.

- **Trade Show**... one of the largest trade show events in the region, Expo proudly presents many of the best vendors and suppliers of services. 'Kick the tires' of equipment and discuss your specific management issues with the best companies our industry has to offer.

- **Fellowship**... many opportunities exist to meet old friends and to make new ones. Whether on the trade show floor, or in the hallways between sessions, or in the many formal social opportunities, or in the informal social get-togethers (Irish Pub, anyone?), the three days at Expo offer you a great opportunity to learn what others are doing in our business in a relaxed atmosphere. Many attendees have told us that these informal discussions are highlights of the conference!

- **One-on-one discussion** opportunities with industry leaders... including the many professors and scientists at Rutgers University and at other top-notch Universities. Rutgers Professors Clarke, Murphy, Hart, Koppenhöfer, Bonos, Meyer and more will be there to answer your management questions, as will Dr. Gaussion from the Univ. of Nebraska, Dr. Mike Fidanza from Penn State, and Dr. Jeff Derr from Virginia Tech. And Rich Buckley will be there too... prepared to answer any questions you might have about plant diseases, cultural programs, or the Grateful Dead.

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An Integrated Approach to Nematode Management in Turfgrass

by **Richard J. Buckley**, *Director Soil Testing and Plant Diagnostic Services, Rutgers University*
Albrecht M. Koppenhofer, *Turfgrass Entomologist, Rutgers University*
William T. Crow, *Associate Professor of Nematology, University of Florida*

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

Introduction: Nematodes, also called roundworms or eelworms, are the second largest group of animals next to the insects. There are estimates of upwards to 500,000 potential species. Fortunately most nematodes exist free of any parasitic relationship ("free-living"). Free-living nematodes occupy all ecological niches and feed on decaying animal and plant matter, algae, and bacteria. Some of the free-living nematodes are predatory, attacking small soil-borne animals including other nematodes.

Unfortunately there are nematodes that parasitize animals and plants. In dogs, heartworm is a common nematode parasite. On the other hand, several species have even been implicated as disease agents of insect pests. These nematodes have been formulated as biorational pesticides and are used in insect control programs with some success.

Finally, we have the plant parasites. Roughly 3,500 species of nematodes are known to be obligate parasites of plants. Most of these nematodes live in the soil and feed on plant roots, but some can be found in the foliage of herbaceous ornamentals or in the stems of conifers. A total of 13 types of plant parasitic nematodes occur in New Jersey soils. Direct injury from high populations of these nematodes is rarely a problem in grass cut above ½".

Table 1. Plant Parasitic Nematode Genera in New Jersey Turfgrasses.

Cyst	*Heterodera spp.*
Dagger	*Xiphinema spp.*
Lance	*Hoplolaimus spp.*
Lesion	*Pratylenchus spp.*
Pin	*Paratylenchus spp.*
Ring	*Criconemella spp.*
Root knot	*Meloidogyne spp.*
Sheath	*Hemicycliophora spp.*
Spiral	*Helicotylenchus spp.*
Sting	*Belonolaimus spp.*
Stubby root	*Trichodorus spp.*
Stunt	*Tylenchorhyncus spp.*

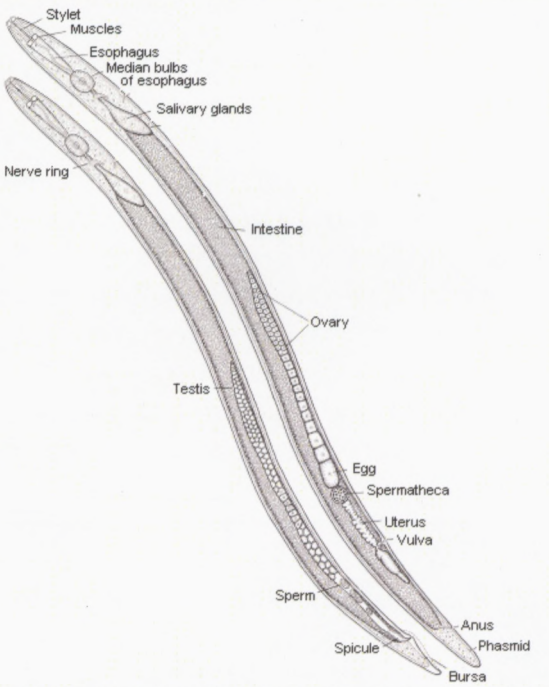

Figure 1: . Male and female adults of a typical plant-parasitic nematode.

Morphology: Plant parasitic nematodes range in length from 1/64 to 1/8 inch (40-320 µm), but are very thin and cannot be seen without magnification. Their bodies are translucent, so the internal organs show through the cuticle. They are unsegmented, but might have some segment-like or other ornamentation on the body. In some nematode genera there is sexual dimorphism – the male and female have different body shapes.

A plant parasitic nematode is essentially a feeding machine that is much like a straw with a pump. At the front end there is a heavily sclerotized piercing-sucking mouthpart called a 'stylet'. The stylet is strongly muscled and moves in and out of the body to feed. The stylet connects to a pump-like esophageal chamber called the median bulb, which aids the nematode in the withdrawal of plant fluids and serves as the transition to the intestine and excretory chambers.

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Life History: Most nematode life cycles have males and females and/or self-fertilizing hermaphrodites, but in some species only females may occur (parthenogenic). The females or hermaphrodites lay eggs (as many as 1000 eggs over a 2- week time span in some species). Each nematode has five growth stages and molts four times, the first of which occurs in the egg, in a gradual transition to the reproductive adult. This process takes roughly 4 to 8 weeks. In many species warmer soil temperatures speed the life cycle.

Conditions that favor nematodes: Nematodes prefer warm soils but will be active anytime the soil temperature is above 40°F. They are semiaquatic and need soil moisture to avoid desiccation and to allow movement. Soils at field capacity are ideal. Nematodes prefer sandy soils with larger pore spaces. We typically assume that USGA recommended sand-based root zone mixes for golf greens are perfect environments for nematode survival. Recent research from Rhode Island reports; however, that greens construction does not appear to influence nematode populations. Their studies suggest that the older the green, the higher the nematode population. The drawback to this research is that most sand-based construction is much newer than the older soil-based greens in the study that had higher nematode populations.

Population dynamics: Plant parasitic nematodes depend on a living host in order to complete their life cycle. They overwinter in all life stages and begin to increase in population as the soil temperatures warm in the spring. By most accounts, nematode populations peak in late-spring to- early-summer, grow slower or crash into the summer, and resume expanding to a second peak in late-summer.

Nematodes are not uniformly distributed in the soil. They are found in diffuse densities of various populations or in "hot spots" that are randomly spaced throughout the turf area. Therefore, different core samples taken from different locations in the same turf area will have different populations. In research conducted at the University of Massachusetts numerous 1 x 4 inch soil cores were taken from a single golf course putting green. Each core yielded populations of stunt nematodes that varied from 50 to- 350 per core. A composite sample of all of the cores yielded an average of 196 stunt nematodes for that green. They also found that the concentration of nematodes varied throughout the soil profile. At the 2 inch depth there were twice as many stunt nematodes than there were at the 4 inch depth. The diffuse nature of nematode populations and random distributions in the soil profile make proper sampling imperative in estimating nematode populations. Single cup cutter sized plugs that are submitted for population estimates often provide misleading results.

Feeding behavior: There are two types of feeding behavior in nematodes. Several genera feed on the outside of the roots (ectoparasites). Some ectoparasites migrate up and down the root and feed in many locations and others remain sedentary and continuously feed in roughly the same spot. Several other genera feed inside the roots (endoparasites). Again, there are migratory species that move up and down the roots between the cells and sedentary species that remain and feed in a single location. Obviously, the endoparasites that migrate cause a great deal of damage to the root system.

Pathology of infected roots: Nematode feeding causes different types of injury to the roots. Most notable is the overall reduction in biomass. Nematodes destroy cells directly by enzymes injected through the stylet. When there are enough feeding sites and enough cells are destroyed, lesions may be present on the root. In some cases, the number of root hairs is reduced and apical growth is affected, so the roots appear stubby or stunted. Some of the endoparasites cause knot-like galls that distort the roots. The feeding sites can also act as infection courts either by mass cell destruction or when the endoparasites force their way into the plant, thus creating an opening for other pathogens to enter.

Symptoms: Plants respond to any root-dysfunction with symptoms related to deficiencies of nutrient or water. Yellowing and thinning of the turf, reduced vigor, and premature wilt have all been attributed to nematode feeding. Turfgrass that is slow to recover from stress, or does not respond to fertilization, might indicate root damage from nematodes.

Since the distribution of nematodes is uneven in the soil and high populations are clustered into "hot spots," the symptoms on the turf population will be seen as non-uniform, poorly performing turf areas that correspond to the nematode "hot spots" in the soil. Nematode damage rarely is uniform or ends abruptly.

Affected plants lack vigor, and so, have a reduced ability to handle periods of environmental stress, or in the case of sports turf, the rigors of turf management. It is not uncommon for these plants to die outright under the stressful conditions, or to be attacked by weak pathogens, like Colletotrichum cereale, the cause of anthracnose, or Curvularia spp., the cause of fading out.

Diagnosing nematode damage: Do not depend on aboveground symptoms or root conditions alone to diagnose nematode problems. Analysis of soil samples by a competent laboratory is the best method for determining

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Rutgers Turfgrass Research Field Days Recap

The 2008 Rutgers Field Days were once again a great success. Over 700 people registered for one or both of the days making this the second highest attended Rutgers Field day ever! But not everyone was from New Jersey. Word has gotten out about the quality of the research trials and it has resulted in attendees coming from all over the United States. There were 16 states and Canada represented at the Golf and Fine Turf Day with thirty percent of the attendees (100) coming from out of state. The Lawn, Landscape, & Sports Field Day was not far behind with fifteen percent (56) attending visiting from out of state.

If you came to see results of the disease trials then you were not disappointed. Dollar spot was active and brown patch was kicking into high gear. Several of the treatments being evaluated by Rutgers University researchers were controlling these diseases quite well. Conditions were so conducive to growth of disease that even some of the non-disease plots were being affected. Brad Park, Sports Turf Education & Research Coordinator, had to battle summer patch on his Kentucky Bluegrass Seasonal Wear Trial and brown patch on his Tall Fescue Seasonal Wear Trial. How unlucky can a researcher be? Brad did a great job of incorporating the disease outbreaks into his talks and discussed the interaction between traffic and disease progression, as well as cultural and chemical options for the control of diseases.

We modified the schedules this year in an effort to make the events more informative and enjoyable for everyone. Core credits are hard to come by so we experimented with an early bird core session during the Golf and Fine Turf Day. During the Lawn, Landscape, and Sports Field Day we incorporated the equipment trade show and demonstrations in with the educational stops to break up the routine a little bit. Judging by early comments it appears that both changes were successful.

We are always interested in hearing what you have to say about the field days and any changes or suggestions that you may have. Feel free to contact Cece Peabody, NJTA Director, at execdirector@njturfgrass.org and share your thoughts with us. Please contact Cece if you are interested in becoming a Field Day Committee member for 2009.

The event was sponsored in part by Bayer, GrassRoots, Storr Tractor, Synatek, Syngenta, and Vic Gerard Golf Cars. Their support goes a long way in maintaining the quality of the event. Their support is greatly appreciated.

See Pictures on page 18...
Check the calendar on the inside back page for 2009 Field Days dates!

New Jersey
GREEN EXPO
Turf and Landscape Conference

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In Conjunction With:

GOLF COURSE SUPERINTENDENTS ASSOCIATION NEW JERSEY 1926

RUTGERS New Jersey Agricultural Experiment Station

Sports Field Managers Association of New Jersey

EDUCATION PROGRAM

Tuesday, December 9, 2008

Credits, Credits, Credits!

We've packed our Tuesday schedule with pesticide recertification credits and your favorite speakers so start off Green Expo with quality education and the credits you need to maintain your professional license!

9:00 - 11:30 AM CORE SESSION — 5 Credits: Core

9:00 - 10:30 **Understanding a Pesticide's Mode of Action is the First Step Toward Selection, Effectiveness and Safety** Dr. Steve Hart, Rich Buckley, Dr. Albrecht Koppenhofer , all of Rutgers University

10:30 - 11:30 **Pesticide Core Jeopardy: A Game-Show Format to Review Pesticide Safety and Handling** Mike Oleykowski, Fisher & Son

12:30 - 2:30 PM 3A SESSION — 4 Credits: 3A, 6B, 8C, PP2

12:30 - 1:30 **Significant Insect Pests & Other Nasty Beasts in the New Jersey Landscape** Rich Buckley, Rutgers University

1:30 - 2:30 **Controlling Weeds in Ornamentals is Not as Difficult as You Might Think!** Dr. Jeff Derr, Virginia Tech

Let's Talk About Controlling Invasive Weeds Dr. Jeff Derr, Virginia Tech

2:45 - 4:45 3B SESSION — 4 Credits: 3B, 6B, 8C, PP2

2:45 - 4:45 **Doing More with Less: Developing a Pest Control Program That Will Help You Grow Better Grass...and Better Businesses** Dr. Jim Murphy, Dr. Steve Hart, John Buechner

12:30 - 4:00 PM GOLF SESSION Nutrients, the Golf Course and the Environment

1 Credit: 5, 3B, 6B, 8C, PP2

Session Sponsored by Tree Tech, Inc,

Last year, golf attendees asked us to pull together a program that touches on the environment, fertility, and the golf course. We've assembled a powerful lineup of speakers who will address those issues...and in this time of spiralizing fertilizer costs, awareness of fertility choices can not only help you grow a healthy golf course but also keep your budget in line.

12:30 - 1:15 **What's Up with All the Weeds in Your Ponds? An IPM Approach to Pond Management** Dr. Steve Souza, Princeton Hydro

1:15 - 2:00 **Foliar Fertility -- A Splash on the Grass** Dr. Roch Gaussoin, University of Nebraska

2:00 - 2:15 **The NJ Green Industry Council's Efforts to Help Shape Science-Based Governmental Nutrient Policy**

2:15 - 3:00 **It's Not Easy Being Green: an Organic Approach to Golf Course Management** Jeff Carlson, Vineyard Golf Club, MA

3:15 - 4:00 **How to Manage the Organic Matter in Your Golf Greens...and Why!** Dr. Roch Gaussoin, University of Nebraska

4:00 PM - 7:00 PM GRASS ROOTS, Inc. presents... Golf Mix and Mingle Cocktail Reception

Thanks to Ken and Keith Kubik, Grass Roots Inc. once again is sponsoring a 3 hour cocktail reception for golf attendees. Many of you have told us that this is the social highlight of Expo, and that you enjoy greeting old friends and meeting new ones while enjoying the fabulous Kubik hospitality. Thank you, Grass Roots, for providing this opportunity to eat, greet, and network!

Meet Our Keynote Speaker

What Lies Ahead for the Green Industry?

David T. Crow, President
DC Legislative & Regulatory Services

GREEN EXPO's Keynote Speaker this year is nationally acclaimed and dynamic! He will deliver a power-packed message about how our nation's newly elected leadership will impact our industry and your business.

A very entertaining speaker, David will share his experiences in the political arena of our nation's capital and he will arm you with insight on how you need to prepare to meet the challenges ahead expected from Washington D.C.

Don't miss this nationally known speaker!
General Session
Wednesday, December 11, 2008
9 AM - 12 Noon

The **New Jersey Green Industry Council (NJGIC)** is an umbrella organization representing the interests of various sectors of the green industry to secure reasonable policy in the state of New Jersey.

NJGIC will be presenting short and targeted updates to attendees at educational sessions throughout Green Expo.

NJGIC.org

NJGIC is the leading organization focused on communicating and educating the legislators and regulators in Trenton about the green industry's value -- and needs -- to the state.

NJGIC has a clear mission to see that facts, university research, and science is a priority in all laws and regulations. The NJGIC is dedicated to unifying the green industry!

Note: We reserve the right to change Speakers and Topics listed in this brochure if necessary.

Wednesday, December 10, 2008

9:00 AM - 12:00 PM GENERAL SESSION

In addition to giving you some insight into the amazing science going on at Rutgers, this session will include a new version of Dr. Jim Murphy's management slide show (including a remarkable look at the new Shea and Yankee stadiums). Our keynote address is by a nationally known speaker who will provide us with a view of our industry's future. This year's General Session is a must attend event!

9:00 - 9:05 **NJTA Annual Meeting**
9:05 - 9:10 **Official Welcome from Rutgers University**
9:10 - 9:40 **Rags to Riches: Turf Management in 2008**
Dr. Jim Murphy, Rutgers University
NJTA Environmental Stewardship Award Presentation
9:45 - 10:10 **Location, Location, Location...What Turf Species -- and Mixtures -- Go Where?**
Dr. Bill Meyer, Rutgers University
NJTA Member of the Year Award Presentation
NJTA Recognition Award Presentation
10:20 - 10:45 **Mating Disruption of Turf Pests - Sex and the City?** Dr. Albrecht Koppenhofer, Rutgers Univ.
10:45 - 11:10 **10 Things You Never Knew About the Rutgers Turf Program...a Peak Behind the Scenes**
Dr. Stacy Bonos, Rutgers University
11:10 - 11:45 **What Lies Ahead for the Green Industry?**
David Crow, DC Legislative & Regulatory Services
11:50 - 12:00 ***NJTA Hall of Fame Award Presentation***

12:00 - 1:00 PM LUNCH Sponsored by STORR TRACTOR COMPANY

One of NJTA's -- and Rutgers University's -- greatest champions is **MaryLou DesChamps** *and the* **Storr Tractor Company.** *Once again they've sponsored your lunch, allowing you plenty of time to get back into the sessions for the education and credits you desire. Thanks MaryLou!*

12:00 - 1:00 PM NJGIC Advisory Forum Luncheon
for industry leaders. By invitation only.

1:00 - 4:00 PM USGA GOLF SESSION

2 Credits: 3B, 6B, 8C, PP2
1 Credit: Core
Session Sponsored by Course Contractors Inc.

1:00 - 1:30 **USGA Year in Review** Adam Moeller, USGA
1:30 - 2:00 **Understanding the Different Pesticides Chemistries Currently Used in the Golf Industry** Dr. Mike Fidanza, Penn State Univ.
2:00 - 2:30 **Annual Bluegrass Weevil Problems in 2008... Let's Look at Their Biology, Ecology, and Monitoring** Ben McGraw, Rutgers Unviersity
2:30 - 3:00 **Chemicals Update...What's New on the Label**
3:00 - 3:30 **Resumes, Interviewing, and Power Points: How Best to Impress and Be Selected**
Dr. Rich Hurley, Rutgers University
3:30 - 4:00 **Trees and Turf: A Peaceful Coexistence**
Dr. Roch Gaussoin, University of Nebraska

1:00 - 4:00 PM LANDSCAPE CONTRACTOR & LAWN CARE 1 Credit: 3A
2 Credits: 3B, 6B, 8C, PP2

1:00 - 1:30 **Ornamental Grasses and Drought Tolerant Landscape Plants**
Bruce Crawford, Rutgers Display Gardens
1:30 - 2:00 **Ornamental Weed Control**
Dr. Jeff Derr, Virginia Tech
2:00 - 2:30 **Low Maintenance Turf Varieties**
Dr. Stacy Bonos, Rutgers University
2:30 - 3:00 **Growth Regulators and Other Add-on Services** Dr. Jim Murphy, Rutgers University
3:00 - 3:30 **The Customers Want Results! Are You Able to Meet their Expectations?**
Tom Shotzbarger, GM of Tomlinson Bomberger Lawn Care and Landscape
3:30 - 4:00 **Fleas, Ticks, Gypsy Moths, Mosquitos and Other Pesky Pests**
Dr. George Hamilton, Rutgers University

1:00 - 4:00 PM SPORTS FIELD MANAGEMENT

1:00 - 1:30 **SFMANJ Business Meeting**
1:30 - 2:15 **Communication and Leadership Skills for Sports Field Managers** Boyd Montgomery, CSFM, SCPS, The Toro Company
2:15 - 2:45 **A Director of Recreation's Perspective on Synthetic Infill Fields**
M. Bruce Kaufmann, CPRP, Town of Westfield
2:45 - 3:30 **A National Look at Sports Field Management** Kim Heck, CEO, Sports Turf Managers Assn.
3:30 - 4:00 **Update on Synthetic Turf Human Health Issues** Jerry Fagliano, NJ Dept of Health and Senior Services

4:00 PM - 7:00 PM TRADE SHOW
Day 1

Come to the Trade Show
to see what's new in equipment and services,
to enjoy some fine refreshment, and
to catch up with your peers.

Trade Show Grand Opening is Sponsored by
Lee Kozsey and **Syngenta Professional Products.**

We thank **Atlantic Irrigation** for being one of the food sponsors during the Trade Show, and **Tree Tech** and **Course Contractors** as beverage sponsors.

New Jersey Green Expo: Ph: (973) 812-6467 · Fax: (973) 812-6529 · Web: www.njturfgrass.org

Thursday, December 11, 2008

Our Thursday sessions begin with important science for golf attendees, plus a mixture of science and management for the Sports Fields and Landscape/Lawn Care disciplines. Nationally known scientists and managers have come together to provide you with valuable information you can use to make your operation better.

7:00 - 10:00 AM GOLF EARLY BIRD SESSION

5 Credits: 3B, 6B, 8C, PP2

7:00 - 7:45 **New Strategies for Fairy Ring Control on Golf Course Greens** Dr. Mike Fidanza, Penn State U.

7:45 - 8:30 **Crane Flies, Cicada Killers and Other Scary Bugs** Dr. Albrecht Koppenhofer, Rutgers Univ.

8:30 - 9:15 **Are You Using All of the Tools in your Toolbox to Control Turfgrass Diseases?**
Dr. Bruce Clarke, Rutgers University

9:15 - 10:00 **A Resurgence of an Old Nemesis -- Summer Patch: Lessons Learned From 2008**
Dr. Bruce Clarke, Rutgers University

7:00 - 10:00 AM SPORTS FIELD MANAGERS

1 Credit: 3B, 6B, 8C, PP2

7:00 - 8:00 **Early Bird Sports Field Managers Networking Roundtable**

8:00 - 9:00 **Turfgrass Management for Sports Fields 101**
Dr. James Murphy, Rutgers University

9:00 - 9:30 **Recent Turfgrass Traffic Tolerance Research at Rutgers** Brad Park, Rutgers University

9:30 -10:00 **Developing Utility Sports Fields Using Farming Principles** Dr. John Grande, Rutgers University

8:00 - 10:00 AM LANDSCAPE CONTRACTOR & LAWN CARE

3 Credits: 3A, 6B, 8C, PP2

8:00 - 8:45 **Least Toxic Products for the Control of Insects and Diseases in the Landscapte**
Rich Buckley, Rutgers University

8:45 - 9:30 **There's New Herbicide Products on the Market...and More Coming!**
Patrick McCullough, Rutgers University

9:15 - 10:00 **Lease or Purchase: What is Your Best Choice?**
Rick Schreib, GE Money

Credits from GCSAA PDI, plus CT, DE, MD, NJ & PA pesticide recertification credits will be available, and NY has been applied for and is expected.

10:00 AM - 2:00 PM Trade Show Day 2

We thank **Atlantic Irrigation** for being one of the food sponsors during the Trade Show, and **Tree Tech** and **Course Contractors** as beverage sponsors.

Three years ago Dr. Mike Agnew presented a core session that discussed application techniques. It was our highest rated core session ever, and more than 160 people attended. We've asked Mike to reprise and update that talk, and he's graciously agreed. Working with Penn State's Dr. Mike Fidanza, they will be presenting important -- and immediately useful -- data on maximizing plant protection by using proper application techniques. In this day of tight budgets, this session is surely a can't miss opportunity to make your operation better.

12:30 - 2:30 PM CORE SESSION 4 credits: Core

Making Your Plant Protection Products Work for You! An Examination of How Products are Applied and the Impact on Plant Protection Products on Efficacy
Dr. Mike Agnew, Syngenta *and*
Dr. Mike Fidanza, Penn State University

12:30 - 2:30 PM SPORTS FIELD MANAGERS

12:30 -1:00 **Renovation of First Energy Stadium, Reading, PA**
Dan "Dirt" Douglas, Reading Phillies

1:00 - 1:30 **Responsibilities of a New Jersey School IPM Coordinator**
Erik Hammerdahl, Morris-Jointure Commission

1:30 - 2:00 **Authoring Specifications and Managing Sports Field Construction**
Tom Miller, Environmental Resolutions

2:00 - 2:30 **Sports Field and Grounds Management at a New Jersey High School**
Kevin Shipman, Kingsway High School

★ NEW EVENT! ★
New Jersey Green Industry Council SILENT AUCTION at the Trade Show

Valuable products and golf opportunities donated by green industry businesses will be available on the GREEN EXPO Trade show floor. Your bidding at this silent auction will help support the NJGIC, who leads the legislative and regulatory initiatives that protect and benefit the green industry as a whole.

Thank you for attending the 33rd Annual New Jersey Green Expo!

MARK YOUR CALENDAR!
34th Annual Green Expo
December 8, 9, 10, 2009

New Jersey GREEN EXPO

New Jersey Green Expo: Ph: (973) 812-6467 • Fax: (973) 812-6529 • Web: www.njturfgrass.org

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New Jersey GREEN EXPO Turf and Landscape Conference

2008 ATTENDEE REGISTRATION FORM

December 9, 10 & 11, 2008 • 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: Golf Course Superintendents Association of NJ (GCSANJ), Sports Field Managers Association of NJ (SFMANJ), and Rutgers University/ School of Environmental and Biological Sciences (SEBS).

— What is Your BUSINESS Category? —

Check All that Apply:

_____Golf Course
_____Cemetery
_____Sod Producer
_____Parks & Recreation
_____Irrigation
_____Schools & Athletic Fields
_____Student
_____Professional (Architect, University)
_____Landscape Lighting
_____Hardscape Contractor
_____Landscape Contractor
_____Landscape Designer
_____Lawn Care Applicator
_____Manufacturer/Supplier
_____Lawn Maintenance
_____Other_____

— HOTEL RESERVATION INFORMATION —

Discounted Room Reservations for the Green Expo 2008 must be handled directly through Trump Taj Mahal Casino-Resort. Please call **(800) 825-8888** and provide Registration Code **ANJTA08. Cut-off date for discounted rates is November 10, 2008**. Reservations made after this date are based on space availability and prevailing hotel rates.

— ATTENDEE REGISTRATION —

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

Today's DATE_____

Name (PRINT CLEARLY)_____

Company Name_____

Title_____

Mailing Address_____

City_____State_____Zip Code_____

Tel #_____Fax #_____

E-mail_____

Spouse Name: (PRINT CLEARLY)_____
(If ordering a Spouse Badge, fee must accompany registration.)

CHECK: Payable to NJTA & Mail with Top 2 Copies.
CREDIT CARD: Fax, Register Online, or Mail Top 2 Copies.

New Jersey Turfgrass Association
25 US Hwy 46 W, Wayne, NJ 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

— REGISTRATION CHOICES —

Friday, November 14, 2008 is final date to register using this form.
After this date, you must register ONSITE for $10 addl per category.
Did you attend the 2007 Expo? ____YES ___NO

	NJTA Member	Non-Member	Total
1-Day Education Sessions & Trade Show Which Day? ___Tues ___Weds ___Thurs	$ 100	$ 125	$_____
2-Day Education Sessions & Trade Show Which 2 Days? ___Tues ___Weds ___Thurs	$ 150	$ 200	$_____
3-Day Education Sessions & Trade Show Tues, Weds, and Thurs (*Non Member Fee includes 2009 Membership)	$ 200	$ 275*	$_____
Spouse Badge (Entire Event)_____	$ 40	$ 50	$_____
Trade Show Only (Price Per Day) Number #_____ @ Which Days? ___Weds ___Thurs		$ 40 =	$_____

TOTAL Registrations: $_____

— REJOIN NJTA! 2009 MEMBERSHIP —

Membership Year: January 1, 2009 - December 31, 2009

Are you a: _____Renewal or _____New Member?

Individual Member:_____ @ $75.00

Name:_____

Green Industry Business Partner: _____@ $250 (Up to 4 names)

1._____3._____
2._____4._____

— Totals: Registrations and '09 Membership —

1. Registrations $_____
2. NJTA Membership $75.00 or $250.00 $_____

GRAND TOTAL DUE $_____

Payment Information: *Please Print Clearly*

_____Check. Check Number #_____
_____Purchase Order #_____(include paperwork)
_____Visa _____MasterCard _____AMEX

Card No._____

Expiration Date (Month/Year) _____ _____ // _____ _____

CID Code No. _____*3 or 4 digit security number on back

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

Billing Address (# only if different)_____Zip_____

Cardholder's Name_____

Signature_____

Final Deadline Date for Receipt of this Registration Form is November 14, 2008. After this date, everyone must register ONSITE for an additional $10 per category.
Cancellations received prior to November 14, 2008 will be assessed a $50 cancellation/processing fee. We regret that NO REFUNDS will be granted after November 14, 2008.

MAIL TOP COPY to EXPO • KEEP SECOND COPY • Date Received:_____
Register Online: www.njturfgrass.org

Hospitality Area at the 2008 Barclays Golf Tournament

The Hospitality Area at the 2008 Barclays Golf Tournament was a splashed-up version of what Todd Raisch, CGCS at Ridgewood Country Club, initiated at the highly successful 2001 Senior PGA Championship.

Todd Raisch arranged to have the Hospitality Area located within the Turf Care Facility, which was in the middle of the Championship Course at the Ridgewood Country Club. It was a place where Golf Course Superintendents and dignitaries felt welcomed and where much appreciated Grounds Department Volunteers and Staff were treated special and thanked for the pride they took in their efforts to present the finest golf course conditions for the 2008 Barclays Golf Tournament.

We all take great pride in the history of the fine gentlemen who have served Ridgewood Country Club as Golf Course Superintendents. Their professionalism, along with dedication of their hard working staffs, made us proud of the golf course management profession.

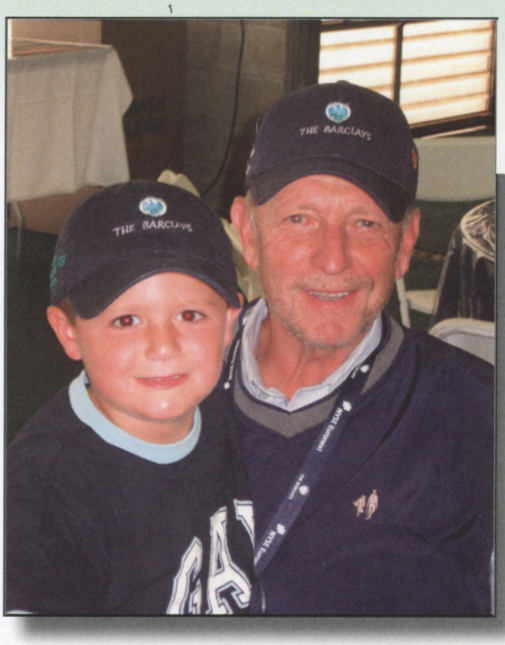
The Hospitality Area gave everyone the opportunity to participate in the golf course management atmosphere and network with peers at a PGA Tour stop that was the first leg of the FedEx Cup.

The support we received afforded us the opportunity to donate the profits from our endeavors to the Golf Course Superintendents Association of New Jersey Foundation, The Golf Course Superintendents Association of America Environmental Institute for Golf, and the New Jersey Turfgrass Foundation. *(see pictures on next page)*

We would like to extend our thanks to the **Ridgewood Country Club, The Barclays/PGA Tour, and Hospitality Area Sponsors and Patrons** for their generous support which made this endeavor possible.

Ken Kubik, Hospitality Chairman

SNAPSHOTS FROM THE BARCLAYS AT RIDGEWOOD CC, August 18-24, 2008



Timmy Kubik helps his proud grandfather, past Hall of Fame Award winner, Ken Kubik, with running the hospitality center.

The NJTA has an all-star group at the Barclays Hospitality Center's check presentation. L-R: Vice President Keith Kubik, Dr. Bruce Clarke, Past President Chris Carson, Ridgewood's superintendent Todd Raisch, CGCS, and President Dr. Karen Plumley.

The Golf Course Superintendents Association of New Jersey's Foundation joins Todd Raisch, CGCS, to receive a check from the Barclays Hospitality Center fundraising efforts. Joining Todd from left to right are Mickey Stachowski (GCSANJ President), Jim Cadott, Shaun Barry, Todd, Glenn Miller and Lance Rogers.

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).

Jack Ormond (1976)

Life began for Jack Ormond in a Nova Scotia farm house in 1907. In 1920, he became a Royal Canadian Mounted Policeman. In 1926, Jack gave up the life of a "Mounty" to accept a job in the U.S. working for a land clearing company that was preparing the way for the "South" course at Canoe Brook Country Club. When construction was completed, Jack remained on to accept the position of assistant superintendent which led to Superintendent in 1941 in which capacity he served until retirement in 1967. Always an innovator, he was the first to renovate his fairways and pioneer in the development of a crabgrass control program for large acreages. His highly manicured thirty six-hole golf course was always maintained to the finest degree of excellence. A modest man who vigorously shunned the limelight, his great example continues to serve as a beacon to all of those who knew him. He was a Superintendent's Superintendent.

Jack Ormond

Thank You
for your continued support
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We truly appreciate you!

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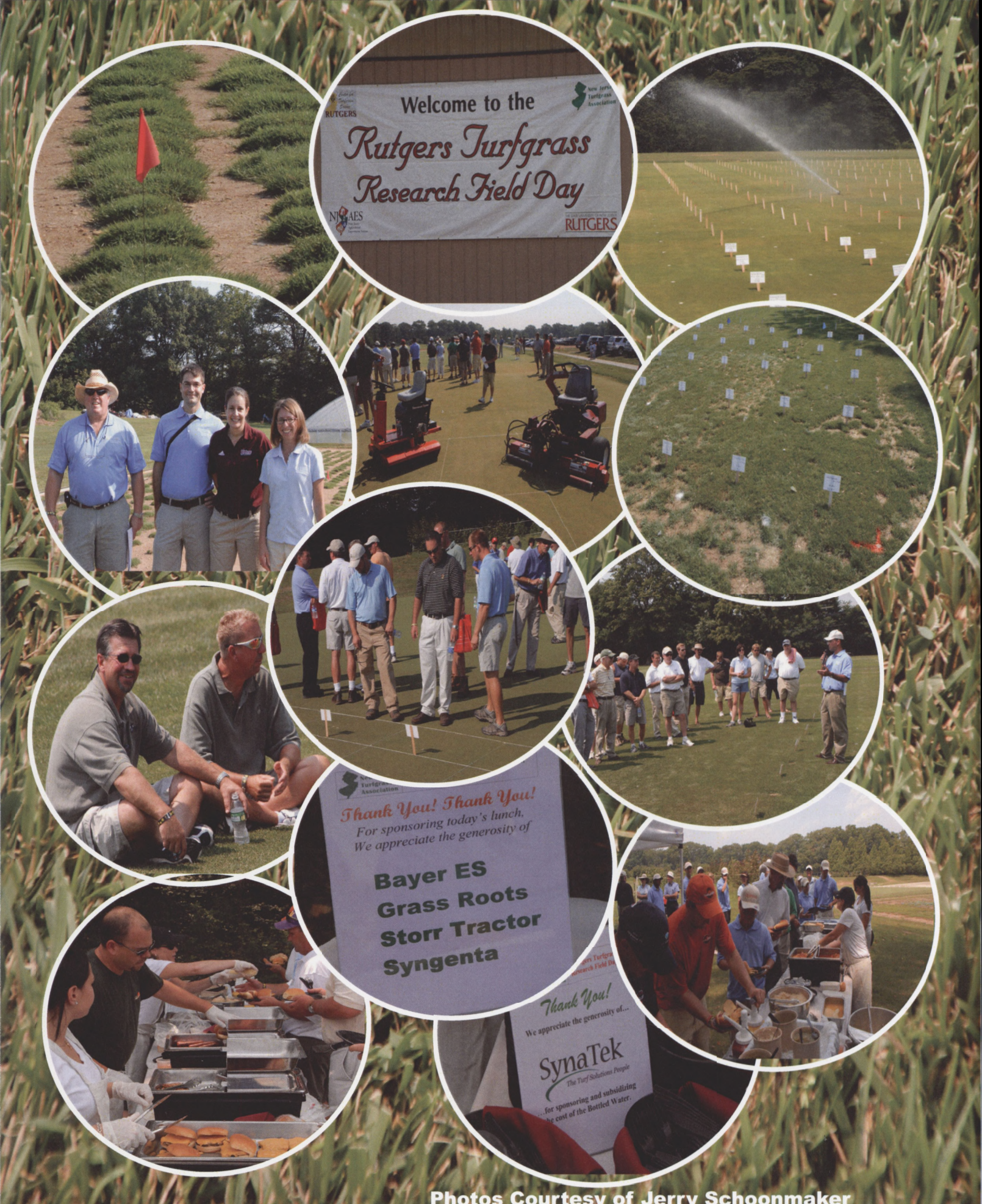
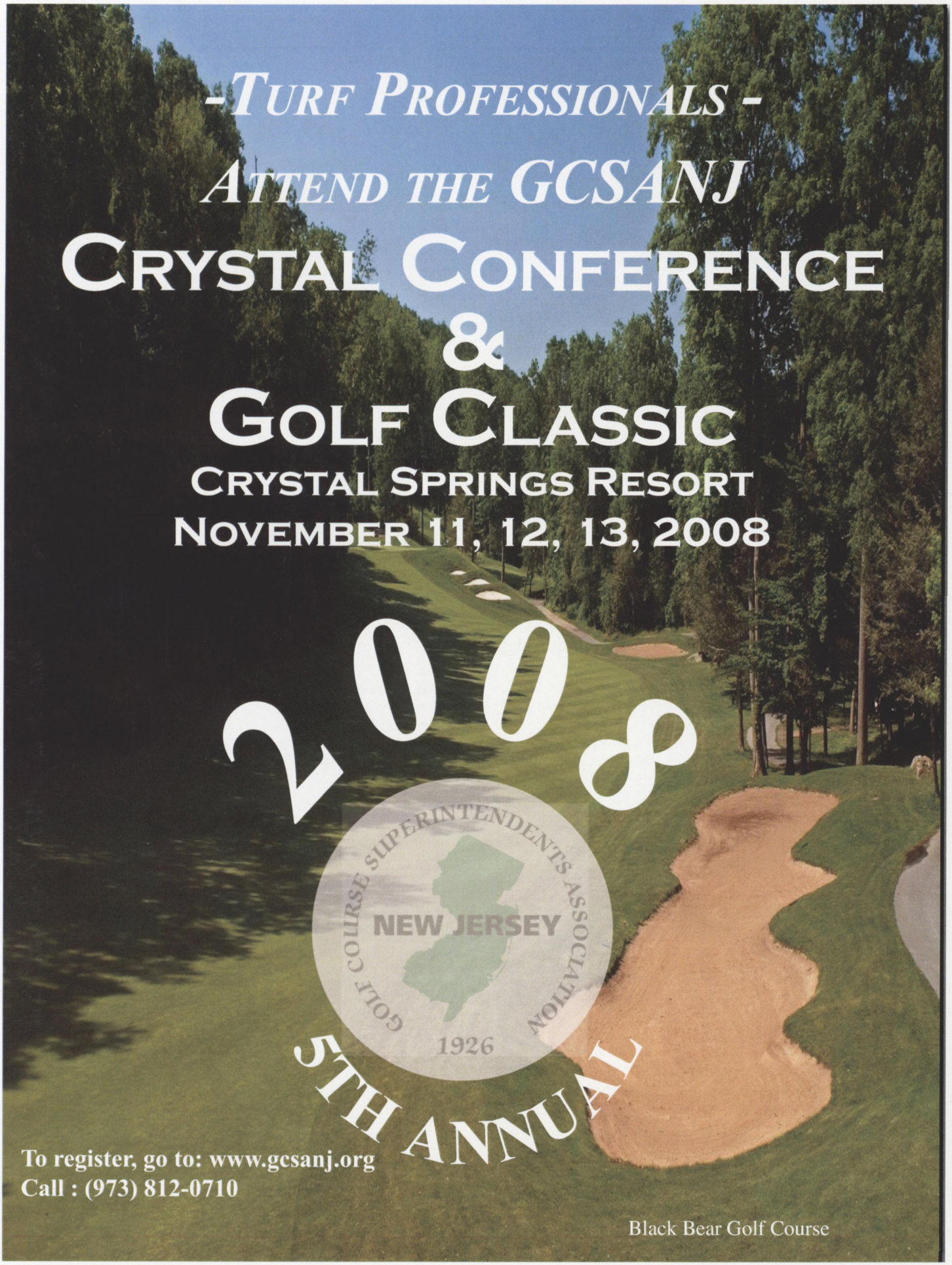
RCE of Warren County	(908) 475-6505

Please notify the NJTA office if any of the above numbers have changed. Thank you.
973-812-6467

Rutgers Extension Offices & Numbers



Photos Courtesy of Jerry Schoonmaker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Applied Turfgrass Research from Rutgers, the State University, and the New Jersey Turfgrass Association

An Integrated Approach to Nematode Management in Turfgrass

by **Richard J. Buckley**, *Director Soil Testing and Plant Diagnostic Services, Rutgers University*
Albrecht M. Koppenhofer, *Turfgrass Entomologist, Rutgers University*
William T. Crow, *Associate Professor of Nematology, University of Florida*

the types of nematodes present and the potential risks those nematodes pose for the turf. The availability of nematicides is limited. They are expensive and hazardous. Sampling is inexpensive when compared to the cost of unnecessary or poorly chosen nematicide applications.

Soil sampling for nematode analysis is much like sampling for nutrient levels. A 1" (2.5 cm) diameter soil corer is used to systematically sample the affected area. Take at least 25 cores to 4" (10 cm) depth and mix in a bucket. Remove a 1-pint (0.5 Liter) subsample, place it in a plastic bag, and keep it out of direct sunlight and in a cool place until it is shipped to a nematode detection service. If turf damage exists, take the samples from throughout the affected area. If possible, sample a nearby healthy area for comparison. If there is no damage, sample the area in a systematic way.

If the intention is to set baselines and monitor the population over time, choose an area no larger than 500 square feet and return to the same area at a later date for additional samples. To get a clear picture of the nematode dynamics on your site, it may be prudent to sample repeatedly during the season and to repeat the process over several years.

Rutgers nematode resources: FS757 'Proper Sampling of Soil and Plant Tissue for Detection of Plant Parasitic Nematodes' is available from Rutgers Cooperative Extension to assist in the selection of a proper sample. Nematode assay submission forms are available for Rutgers Nematode Detection Service by phone 732-932-9140, fax 732-932-1270, or on the web at www. njaes.rutgers.edu/services.

Damage thresholds: Injury thresholds signify the potential of a nematode population to cause damage. A number of thresholds have been established for most of the common nematodes in turfgrass. Some of the reported thresholds are research based, but others are simply related to a researcher's or practitioner's personal experience. In many cases there is a great divergence in the numbers from source to source. In general, lower population thresholds can be found in reports from the south whereas higher population limits are tolerated in the northeast. Accepted thresholds for bentgrass and tall fescue are listed in table 2.

It is important to note that for most nematode species on many of the major warm- and cool-season turfgrasses there are no known thresholds, therefore, one should use caution when trying to extrapolate from one nematode-turfgrass combination to another. Furthermore, nematodes rarely occur as populations of single species. Most of the time several different species are found associated with the same turf stand. This makes damage thresholds difficult to use in a practical way. Because thresholds only provide a guideline it is important to consider all factors when making a control decision.

Nematode management: Most turfgrasses can withstand some feeding by most kinds of nematodes if given sensible care. Direct injury from high populations of nematodes in New Jersey soils on grass cut above ½ inch is rarely a problem. It is not uncommon to have the highest populations of nematodes on turf in the spring and fall, when the turf is actively growing. Populations of nematodes often increase in root biomass for food.

Management practices that reduce plant stress and promote vigorous root growth will help the grass tolerate the feeding of very high populations of nematodes. Mowing the grass at the proper cutting height for the species, regular aerification to prevent thatch and compaction, proper fertilizer inputs – based on soil test results – and judicious use of irrigation may provide relief by producing a healthier plant overall.

It is also important to monitor and control other diseases. Remember, it is often the cumulative effects of several stress factors, living and non-living, that cause the decline of the turf.

Biorational control: The biorational products, Ditera® (dried fermentation solids and solubles of the fungus Myrothecium verrucaria), Neo-Trol® (ground sesame plants), and Safe-T-Green® (linear secondary alchohols reacted with ethylene oxide) are labeled for nematode control in turf. There are many other plant-derived products on the market that make various claims regarding nematode suppression. Some of these products are derived from herbs like pepper, clove, thyme, and wintergreen, or from various trees and shrubs. For most of these products there is no efficacy data provided from legitimate research. In some cases, the products show nematode suppression in the laboratory, but few have maintained that performance in the field. In fact, field trials from Florida, South Carolina and Massachusetts suggest that these biorational products do not consistently suppress populations of plant parasitic nematodes and perform poorly when compared to traditional nematicides and fumigant products.

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An Integrated Approach to Nematode Management in Turfgrass

by **Richard J. Buckley**, *Director Soil Testing and Plant Diagnostic Services, Rutgers University*
Albrecht M. Koppenhofer, *Turfgrass Entomologist, Rutgers University*
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Green World
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Applied Turfgrass Research from Rutgers, the State University, and the New Jersey Turfgrass Association

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Biostimulants and soil amendments: You might hear of certain microbial biostimulants, compost products, or other soil amendments that are supposed to affect nematodes in various ways. Most of these claims are unfounded. Researchers at the University of Maryland found that the addition of activated sewage sludge and poultry waste actually increased lance nematode populations on a creeping bentgrass putting green compared with other organic nitrogen sources, which is contrary to reports that organic soil amendments are capable of suppressing plant parasitic nematodes. As with many of the alternate therapies marketed for nematode control, efficacy data from University-based sources is lacking.

Natural enemies: Many microbes, including bacteria, fungi, and actinomycetes, are parasites of nematodes. The bacterium, Pasturia penetrans, produces spores that stick to the nematode. Once the spores germinate and penetrate the nematode body, they proliferate and produce more spores that are released when the nematode ultimately dies from the infection. Another microbe, the fungus Arthrobotrys oligospora, produces hyphal rings that trap and constrict the nematodes as they pass through and touch them. Although there is promise with Pasturia, there are no commercially available forms of these biologicals at the present time.

Entomopathogenic nematodes: The beneficial nematode Steinernema riobrave (BioVector®) shows some promise as a nematode control at high application rates, but is currently not labeled for use in that manner. Research conducted by Ohio State and Virginia Tech Universities found that the application of these beneficial nematodes reduced the numbers of plant parasitic nematodes on golf course putting greens. At the University of Florida; however, in ten field trials no benefit was recorded using entomopathogenic nematodes to suppress plant-parasitic nematodes.

Chemical control: The decision to use nematicides must be carefully evaluated. The simple presence of plant parasitic nematodes does not warrant chemical applications. Furthermore, when high populations of nematodes occur in the absence of damage to the turf, it is difficult to justify the application. If nematode populations exceed reported damage thresholds, there is appreciable risk to the turf, and all other management issues and stress factors are considered, nematicide applications may be useful in reducing nematode populations and improving turf quality.

Nemacur®: In New Jersey, fenamiphos (Nemacur® 3EC and 10G) was labeled for use on golf courses and in commercial sod and seed production. In fact, Nemacur® has been the most widely-used and consistently effective nematicide used on turfgrasses in the United States for the past 30 years. One of the properties of Nemacur® that makes it particularly useful is that it is the only turfgrass nematicide with systemic activity. This means that the material is taken up by the roots of the turf where it can affect endoparasitic nematodes in the roots, as well as affecting ectoparasites in the soil. Fenamiphos is in the class of pesticides termed "organophosphates." These pesticides act on the nervous system of the target pest. Unfortunately, exposure also can affect the nervous system of non-target animals such as fish, birds, and people. Because of the health and environmental risks from organophosphates many of them have been taken off the market in recent years. Nemacur® may no longer be purchased legally after 2008. The loss of Nemacur® has stimulated great interest in the development of new nematode management options for turf.

Fumigation: Dazomet (Basamid®) is a granular product that is gaining popularity for turf managers as a tool for turfgrass renovations. The product, when used at the right temperature and soil moisture levels, releases methyl isothiocynate, which is the same active ingredient in older general use fumigant products like Vapam®. This material can control many kinds of soil-borne pests including nematodes, fungal disease agents, insects, and weeds. It is labeled for a number of turf and landscape uses. In turf areas with chronic nematode problems, the renovation of the existing stand, using a product containing dazomet might be prudent. Remember that fumigants have no lasting effect, so nematode populations will begin to recover once the material dissipates. Furthermore, with no competition from other soil microbes that were killed by the fumigant, nematode populations may recover quickly.

Curfew® soil fumigant: This is a fumigant nematicide that is labeled for use in the coastal states of the southeast, but not in New Jersey. Curfew® (1,3-dichloropropene) is slit-injected into established turf as a liquid that then moves through the soil as a gas. It is a very effective contact nematicide and kills nematodes in soil, but does not have systemic activity. Curfew® is custom applied by a few approved applicators and labeling is sought on a state-by state basis. Therefore, the estimated number of sales in a given state must be high enough to justify a registration being pursued. It is unlikely that the economics would justify Curfew® being registered beyond the eight states where it is currently labeled.

continued on page 22

GREEN EXPO is COMING!

continued from pg 5

- **Business topics, too**… Tom Shotzbarger will be talking about meeting customer expectations, for example, and Rick Schreib will be giving you definitive answers on choosing between lease of purchase of your equipment.

- **A newly refurbished hotel**… the Taj Mahal has just completed a hundred million dollar upgrade of its facilities, including new restaurants and clubs, and refreshed rooms. The atmosphere has changed for the better at our host hotel!

- **Support of the Turf Program at Rutgers University**… your attendance at our conference is a visible sign to our friends at Rutgers, and to their administrative bosses, that the industry professionals in our area support their important work. In these times of declining government support of Rutgers, your attendance helps NJTA and The Center for Turfgrass Science and all of our presenting partners fight the good fight for continued support of the Center's mission.

The Green Expo mission statement: The New Jersey Green Expo is a science-based conference and trade show that provides education, business, fellowship, and environmental stewardship opportunities in partnership with the Center for Turfgrass Science at Rutgers University.

Your attendance and participation is ultimately what makes Green Expo work, so please come… we look forward to greeting you at Green Expo!

...NEMATODE MANAGEMENT

continued from pg 21

Problems with nematicide use: No nematicide is equally effective against all nematode species. The endoparasitic species are particularly hard to control. Furthermore, the application of a nematicide product does not guarantee 100% control. There are always survivors, so nematode populations will recover over time.

Finally, there are reports of enhanced microbial degradation of fenamiphos on golf greens after repeated use of the product. Repeated use of any pesticide to the soil over a long period of time will encourage the buildup of bacteria and other microbes that can metabolize (eat) the particular chemical. The net effect is a reduction in the effectiveness of the material. In Florida, there are reports of Nemacur® degradation at a rate 20 times faster than normal. Enhanced microbial degradation has been reported for over 200 soil-applied pesticides, so it would not only be prudent to rotate all materials, but to keep their use to a minimum.

New chemistries: There is currently a lot of effort going into the discovery and development of new nematicides. New pesticide classes are being developed that look to be effective and yet safer than organophospates to non-target organisms. Molecular biologists and nematologists now know what every gene in certain nematodes does. This has allowed for development of pesticides that target those genes that are only present in parasitic nematodes. Currently field trials with some of these new chemistries are underway with exciting results. One of the good things about turf from a pesticide development standpoint is that it is a non-food crop. That makes it easier to get labeling since residues in food are not a concern. Also, turf is a high-value crop so there is a commercial market. Therefore, many companies are looking to get their initial labeling for new nematicides for golf course turf. Within a few years some effective new turfgrass nematicides should be on the market for your use. The only drawback is that none of these new chemistries currently being evaluated are systemic. This means that they will probably be more consistently effective against ectoparasites than endoparasites.

Table 2. Accepted Damage Thresholds for Plant Parasitic Nematodes on Selected Cool- and Warm-Season Turf

		Damage Threshold (Nematodes/100 cm3 soil)			
		Cool-season Grasses		Warm-season Grasses	
Nematode	Genera	Bentgrass	Tall Fescue	Bermudagrass	St. Augustine
Awl	*Dolichodorus*	150	50	10	10
Cyst	*Heterodera*	unknown	unknown	unknown	unknown
Dagger	*Xiphenema*	200	150	300	200
Lance	*Hoplolaimus*	150	100	40	40
Lesion	*Pratylenchus*	150	150	150	150
Pin	*Paratylenchus*	unknown	130	unknown	unknown
Ring	*Criconemella*	1500	150	1000	500
Root Knot	*Meloidogyne*	100	2000	300	80
Sheat	*Hemicycliophora*	200	80	200	80
Spiral	*Helicotylenchus*	600	1000	1000	1000
Sting	*Belonolaimus*	20	12	20	unknown
Stubby Root	*Paratrichodorus*	100	150	100	40
Stunt	*Tylenchorhynchus*	300	100	100	200

Adapted from Couch, 1995. Diseases of Turfgrass, 3rd edition.

Calendar of Events

2008

Tuesday, November 11 -
Thursday November 13, 2008
5th Annual GCSANJ Crystal Conference
Crystal Springs Resort
Hamburg NJ
For info: www.gcsanj.org

Tuesday, December 9th -
Thursday December 11, 2008
33rd Annual Green Expo
Taj Mahal Resort
Atlantic City NJ

2009

Monday, May 4, 2009
Rutgers Turfgrass Research Golf Classic
Fiddler's Elbow Country Club

Tuesday, August 4, 2009
Rutgers Turfgrass Research Field Day 1
Golf and Fine Turf
Hort Farm II, New Brunswick NJ

Wednesday, August 5, 2009
Rutgers Turfgrass Research Field Day 2
Lawn, Landscape & Sports Fields
Adelphia Farm, Freehold NJ

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December 9-11, 2008

Taj Mahal Hotel Atlantic City, NJ

New Jersey GREEN EXPO

Turf and Landscape Conference