APRIL 20, 2011

By Brad Park

Torpey Athletic Complex and TD Bank Ballpark, Bridgewater, NJ

UPDATE Summer 2011
Dr. Henry W. Indyk
Graduate Fellowship in Turfgrass Science

As many of you know, the turfgrass industry lost a dear friend and colleague in September 2005. We will all miss Henry very much and would like to insure that his legacy lives on. The Indyk family would like to establish a memorial fellowship to support graduate students interested in applied turfgrass science. This fellowship is being created to help assure that tomorrow’s graduate students have the financial resources to get an advanced degree in turfgrass science at Rutgers University. To fund a full graduate assistantship each year in Henry’s name, we will need to raise a total of $400,000. Your generous support at this time will bring us closer to reaching this goal.

To make a tax-deductible contribution today, please send a check payable to the Rutgers University Foundation, 7 College Avenue, New Brunswick, NJ 08901. Be sure to indicate “Indyk Fellowship, Turfgrass” in the memo portion of your check. If you desire, you may provide a donation in the form of a pledge payable over several years.

For information on other ways to support this fellowship, please contact
Dr. Bruce B. Clarke, Director – Rutgers Center for Turfgrass Science
(732) 932-9400, ext. 331; or clarke@aesop.rutgers.edu or
John Pearson, Director of Leadership Gifts at the Foundation, by calling
(732) 932-7899 or email: pearson@winants.rutgers.edu

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How to Conduct an IPM Scouting Expedition

For sample collection:
- Sweep net and shake cloth
- Traps
- Plastic specimen bags and bottles
- Sturdy cooler, Bubble wrap
- Rubbing alcohol for preservation and disinfection

For documentation:
- Camera and Notebook
- Portable voice recorder

For Reference Materials:
- Text books
- Field Guides
- Weekly IPM scouting reports from your local university Cooperative Extension Service.

Responsible stewardship is “the name of the game”.

It is unlikely you would return to an automobile mechanic who made repairs on your car based on guess work rather than careful investigation and diagnosis of the problem. Skilled IPM practitioners who scout properly and follow their program protocols face fewer plant healthcare problems and manage their sites safely, cost effectively and with fewer inputs. At this point you will prepare a scouting report and compare your findings to your IPM Threshold Policy. This will influence the decision of what actions will be taken.

Don Savard is a Certified Sports Field Manager (CSFM), Certified Grounds Manager (CGM); Grounds and Athletic Facilities Manager, Salesianum School; and SFMANJ President
Jeff Marcason
Ken Mathis
Larry Mayerowitz
Robert Meyer
Michael Morvay
Kenneth O’Brien
George Olson
Brian Pardoe
Bradford Pastrick
Eugene Peer
Sam Pepe
James Pinkerton
Nick Pursakowski
Gerald Redmond
Charles Rogers
Stephen Ruggiero
James Saner
Giancarlo Sarullo

Borough of Northvale
Brick Twp
Middlesex County Dept. of Parks
Student
Rutgers University
Mendham Borough, DPW
Trimalawn Equipment
Turf Equipment and Supply Co.
North Brunswick Twp
Montville Twp
Central Regional School Dist
Student
Manalapan Twp DPW
Metuchen School District
Plainsboro Twp
Monmouth University
Ocean Twp BOE
Student

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Jack Shannon
Daniel Shemish
Karl A. “Chuckie” Singer
Brent J. Sliker
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Ronald Sutton, Jr.
Kevin Taylor
Andrew Tobias
Thomas Torpey
Jerrilyn Uelen
George Van Haasteren
George Warden
Jack Warner
Eric Westervelt
Tony Wilcenski
Scott Wylie

Clarkton Sport Turf Services
West Deptford BOE
New York Red Bulls
City of Bayonne
Twp of Mansfield
Cransford BOE
Student
Student

Monroe Twp
Student
Dwight-Englewood School
Middlesex County Dept. of Parks
Township of Freehold
Clarkton Sports Turf Services
Monroe Twp
Brick BOE

New and Renewed SFMANJ Members
Continued from page 3
Efficient sports field and grounds management techniques will be the focus of the transition from spring to summer. SFMANJ will be kicking-off the summer with a presentation to the NJ Association of School Business Officials. Several members of the Board of Directors will be speaking in a workshop at the NJASBO Conference in June. Early this year, NJASBO invited the SFMANJ to share its professional, on-the-ground perspective with the decision-makers that directly affect how field managers maintain their facilities. This is a great opportunity for school sports field managers to begin to establish mutually beneficial relationships with their administration if they haven’t already done so. It is the intention of the Board of Directors to provide NJASBO with necessary decision-making information and staff training resources for effective sports field management.

While SFMANJ is taking on the added challenges of establishing new professional relationships and actively battling impending pesticide legislation, it will continue to sponsor traditional events. Looking ahead to July, SFMANJ is making preparations for its annual Equipment Trade Show at the Rutgers Adelphia Research Field Day. Further down the road, the association is exploring opportunities for a fall field day as well as additional instructional clinics similar to those that successfully started the year off. Also, it’s never too early to start planning the Sports Field Education Program at the December 2011 NJ Green Expo at the Taj Mahal in Atlantic City. In cooperation with the New Jersey Turfgrass Association (NJTA), SFMANJ is already in the process of finalizing this year’s program. As a result of last years’ record attendance, the Association recognizes the need for NJ pesticide applicators to maintain Category 13 (IPM for Schools) recertification credits. Therefore, this year’s educational program will duplicate last years’ program by dedicating a full afternoon to School IPM related education.

With the new challenges that SFMANJ is taking on this year and the goal of continuing to provide its membership with timely educational and managerial resources, the Activities and Education Committee and Board of Directors needs your input more than ever. Don’t hesitate to voice your opinion on any sports field related issues or help to determine educational content for upcoming programs. The Board of Directors always encourages member participation in the planning and facilitation of activities. Your feedback and insight are always valued greatly.

Matt Olivi is Sports Turf Manager, Piscataway Board of Education; and member of the SFMANJ Board of Directors
Rutgers University / NJAES provide educational programs and resource materials to educate grounds and other turf managers about ways to reduce and/or eliminate the use of synthetic pesticides on natural turf surfaces. Our outreach efforts provide stakeholders with non-biased, research-based information and recommendations on the use of 'low-impact' and ‘organic’ pesticides as well as synthetic pesticides.

Unfortunately, our experience indicates there is considerable confusion regarding the use of low-impact pesticides. For example, turf managers not familiar with the definitions of low-impact, organic, and synthetic pesticides may believe they are using (or being sold) a low-impact pesticide when, in fact, they are not. Additionally, many turf managers may not be familiar the cost or effectiveness of low-impact and organic products.

Rutgers faculty have studied the effectiveness of some low-impact and organic products. We have also reviewed the scientific literature of other scientists who have conducted research on low-impact and organic pesticides on natural turf. The summary points below highlight some of the most significant challenges in managing natural turf systems with only low-impact and organic products.

**Key Points:**

- Annual weeds and white grubs represent the most common and significant pest problems in natural turf systems in New Jersey. When improperly controlled, these pests can destroy the quality and functionality of turf making it unsafe for play and increasing the potential for soil erosion.

- Corn gluten meal is a product sold and used for preemergence control of annual weeds in lawns. Peer-reviewed research reports indicate that corn gluten meal can provide some preemergence control of crabgrass (Digitaria spp.) in lawn-type turf; however, no testing has been conducted under sports turf situations. Research reports also indicate that corn gluten meal is not as effective at controlling weeds as synthetic herbicides. Corn gluten meal contains approximately 10% nitrogen (N) and the application rates reported to suppress weeds, if applied in New Jersey, would be in violation of the 2011 New Jersey Fertilizer Law. Moreover, Rutgers commonly recommends avoiding the use of preemergence herbicides (organic or synthetic) on sports fields where overseeding is needed to maintain turf density and safe playing surfaces. Preemergence herbicides have extended residual activity and thus can kill new seedings. Examples of corn gluten meal products include Super-Premium Organic Weed Control (Jonathan Green, Farmingdale, NJ) and Organic Weed Control Plus (Pure Barnyard, Inc, Portsmouth, NH).

- Limited research is available on the use of “minimum risk” pesticides that act as nonselective herbicides and are often recommended for postemergence control of weeds in turf. These nonselective pesticides affect leaf foliage that the applied product contacts. Examples include:
  - EcoEXEMPTTM HC (2-phenethyl propionate with clove oil from EcoSMART Technologies, Inc., Franklin, TN),
  - MatranTM 2 (clove oil from EcoSMART Technologies, Inc., Franklin, TN),
  - BurnOut II (citric acid with clove oil from St. Gabriel Organics, Orange, VA)
  - Weed Zap (cinnamon oil with clove oil from JH Biotech, Inc, Ventura, CA).

These nonselective herbicides will not adequately control mature perennial weeds (tops of plants will ‘die back’ but will re-grow from roots). The best use of these materials is limited to the control of seedling or annual weeds in locations where bare ground is acceptable/desired (e.g., cracks in paved surfaces, baseball and softball infield skin surfaces, etc.).

- Acetic acid is another example of a nonselective herbicide being marketed and sold as a non-synthetic product, but it is not considered a low-impact pesticide under the New Jersey School IPM Law. This herbicide acts in a similar manner to the materials described above (i.e., they only affect foliage on contact).

- Microorganism-based insecticides and fungicides also known as biological or biorational products are marketed and sold for the control of certain white grub species or diseases on turf. Milky disease (causal agent Paenibacillus popilliae) (e.g., Milky Spore Powder, St. Gabriel Laboratories, Orange, VA) and entomopathogenic nematodes, in particular the species Heterorhabditis bacteriophora (e.g., Nemaysys® G, Becker Underwood, Inc., Ames, IA), are examples of biological control organisms contained in products that are sold for the control of white grubs. Milky Spore Powder contains a strain of P. popilliae that is rather specific to Japanese beetle grubs; however, Rutgers research indicates that the oriental beetle (another white grub species) is the predominant species in New Jersey. Oriental

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Using “Low-Impact” Pesticides

beetle grubs are not controlled by this product. Thus, Milky Spore Powder is not effective against the most widespread and important white grub pest on turf in NJ, and data indicating that it is effective against Japanese beetle white grubs is limited. Commercially-available products based on entomopathogenic nematodes can provide good control of Japanese beetle grubs; however, these products have been found to be less effective against other white grub species including the oriental beetle. Entomopathogenic nematode-based products are not recommended for non-irrigated turf sites. Research findings indicate that no one currently available biological, low-impact, or organic insecticide is as effective at controlling a wide spectrum of white grub species as some synthetic insecticides.

- Biological fungicides such as Ecoguard (Bacillus licheniformis, Novozymes Biologicals, Inc., Salem, VA), Companion (Bacillus subtilis, Growth Products, Ltd, White Plains, NY) and Turf Shield (Trichoderma hazianum, Bioworks, Inc., Geneva, NY) can suppress diseases that can occur on sports and landscape turf such as dollar spot (Sclerotinia homoeocarpa), brown patch (Rhizoctonia solani) and summer patch (Magnaporthe poae). University research has shown these products to be effective in suppressing certain turfgrass diseases when used on a preventive basis, but they have not been shown to effectively control turf diseases on a curative basis or when conditions are conducive to severe disease development. Furthermore, research has shown that these products are most effective when used in combination or alternation with reduced rates of synthetic fungicides.

- Many low-impact and organic pesticides are substantially more expensive than synthetics. Many property managers, particularly those responsible for large municipal and boards of education properties, do not have the budgetary resources to afford a comprehensive synthetic pesticide program let alone a comprehensive low-impact or organic pesticide program.

- Product efficacy and application requirements are important aspects of selecting and using any pesticide – regardless of whether it is organic, synthetic, or low-impact. Product users depend on pesticide labels for sound, scientific, non-biased, and detailed information on the pesticide’s safety, effectiveness, and method(s) of application. Unfortunately, labeling of low-impact and organic products is typically minimal and may cause confusion in proper use of these materials compared to the extensive information contained on the labels of most synthetic materials.

Brad Park is Sports Turf Res. & Ed. Coor., Rutgers University, SFMANJ Board Member, and Editor SFMANJ Update; Dr. James Murphy is Extension Specialist in Turf. Mgmt., Rutgers University and SFMANJ Advisor; Dr. Bruce Clarke is Extension Specialist in Turf. Pathology, Rutgers University and SFMANJ Member; and Dr. Albrecht Koppenhöfer is Extension Specialist in Turf. Entomology, Rutgers University

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MEMBER Sports Turf Maintenance Association

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2011 CALENDAR OF EVENTS

Rutgers Turfgrass Research Field Days
Golf & Fine Turf
Rutgers Hort Farm II – North Brunswick, NJ
July 26, 2011
Lawn, Landscape, Sports Turf
with SFMANJ-sponsored Equipment Demos
Rutgers Adelphia Farm – Adelphia, NJ
July 27, 2011
NJ Turfgrass Assoc.
973.812.6467
www.njturfgrass.org

New Jersey Green Expo
December 6-8, 2011
NJ Turfgrass Assoc.
Trump Taj Mahal, Atlantic City, NJ
973.812.6467
www.njturfgrass.org

STMA Annual Conference
January 10-14, 2012
Sports Turf Mgrs. Assoc.
Long Beach, CA
1-800-323-3875
www.stma.org

Rutgers NJAES OCPE
Athletic Field Courses
Athletic Field Maintenance
February 14-15, 2012
Baseball and Softball Skin Surface Selection and Management course
February 23, 2012
Reduced Pesticide Inputs and Organic Options for Sports Turf
February 21, 2012
Rutgers’ Cook Campus
New Brunswick, NJ
732.932.9271
www.cpe.rutgers.edu

Rutgers University, NJAES Office of Continuing Professional Education

James A. Murphy, PhD., Extension Specialist in Turfgrass Management, Rutgers University Center for Turfgrass Science and Bradley S. Park, Sports Turf Research & Education Coordinator, Rutgers University Center for Turfgrass Science, are Course Coordinators and Instructors. Other sports turf programs offered by Rutgers NJAES-OCPE include the Henry Indyk Two-Day Athletic Field Maintenance Course (February 14-15, 2012) and the Baseball and Softball Skin Surface Selection and Management course (February 23, 2012).

For more information about these programs, please contact:

Jim Morris
NJAES Office of Continuing Professional Education
(phone) 732-932-9271; (email) jmorris@njaes.rutgers.edu;
(web) www.cpe.rutgers.edu/athleticfield

Brad Park is Sports Turf Ed. & Res. Coor., Rutgers University; SFMANJ Board Member; and Editor, SFMANJ Update

Save The Date:
Rutgers Lawn, Landscape, and Sports Turf Research Field Day
with
SFMANJ-Sponsored Equipment Demonstrations Field
Wednesday, July 27, 2011
Rutgers Adelphia Research Farm, Adelphia, NJ
Rutgers Lawn, Landscape, and Sports Turf Field Day

with SFMANJ-Sponsored Trade Show & Equipment Demos

Wednesday, July 27, 2011

BE THERE!