

# UPDATE Sports Field Managers Association of New Jersey

Summer 2011  
Vol. 11, No. 2

P.O. Box 205, Pennsville, NJ 08070 • 302-514-3179 • www.sfmanj.org • e-mail: mail@sfmanj.org

## RUTGERS

### LAWN, LANDSCAPE AND SPORTS TURF FIELD DAY:

**SAVE THE DATE! Wednesday, July 27, 2011**

**SFMANJ to Sponsor**

### Trade Show & Equipment Demos

**at Rutgers Adelphia Research Farm**

By Brad Park

**S**ports Field Managers Association of New Jersey (SFMANJ) will once again collaborate with the New Jersey Turfgrass Association (NJTA) and Rutgers University to take part in the annual Rutgers Lawn, Landscape, and Sports Turf Field Day at the Rutgers Adelphia Turfgrass Research Farm in Adelphia, NJ on **Wednesday, July 27, 2011**. Both a morning trade show and equipment demonstrations will be sponsored by SFMANJ.

This is a great opportunity for SFMANJ members and other Green Industry professionals to network with peers and industry representatives, examine the latest product offerings at the trade show, and observe demonstrations of the latest sports field and landscape equipment. Turfgrass education will focus on common cool-season turfgrasses used in sports turf (Kentucky bluegrass, tall fescue, and perennial ryegrass). Pesticide credits will be available to those certified applicators in attendance.

#### The schedule for July 27 is as follows:

- 6:30 am Vendors may arrive
- 7:30 am Registration & Trade Show Opening
- 9:00 am Research Tours & Equipment Demos
- 1:00 pm Lunch & Open Trade Show
- 2:00 pm Optional CORE Pesticide Credit Session
- 2:30 pm Conclusion

Look for registration materials in the mail. Online registration is available at the NJTA website: [www.njturfgrass.org](http://www.njturfgrass.org)

Brad Park is Sports Turf Res. and Ed. Coord., Rutgers Univ.; SFMANJ Board member; and Editor, SFMANJ Update



Dan Purner, Head Groundskeeper, Somerset Patriots, and SFMANJ Member (left) and Dave Kuczynski, Sports Turf Manager, Somerset County Parks, and SFMANJ Member (right) hosted facilities for the 2011 SFMANJ Spring Field Day on Wednesday, April 20, 2011.



SFMANJ partnered with Pine Hill Youth Association to hold a Little League Baseball Field Maintenance Clinic in Pine Hill, NJ on Saturday, March 26, 2011.

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# Welcome!

## New and Renewed SFMANJ Members

Currently we have 198 new & renewed members. In January 2011, SFMANJ mailed invoices for 2011 membership dues to all current members. If you did not receive an invoice, please contact us at 856.514.3179 or download the membership form available at [www.sfmanj.org](http://www.sfmanj.org). Mail membership dues direct to SFMANJ, PO Box 205, Pennsville, NJ 08070.

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Committed to enhancing the professionalism of athletic field managers by improving the safety, playability and appearance of athletic fields at all levels through seminars, field days, publications and networking with those in the sports turf industry.

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*This newsletter is the official quarterly publication of the Sports Field Managers Association of New Jersey.*

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SFMANJ does not necessarily support the opinions of those reflected in the following articles.

“Field Fertilization is Not a Vanity Issue”, Public Works Says

# FIELD FERTILIZATION continues to be a \_\_\_\_\_ Source Of Controversy In Lacey Township

By Elaine Piniat

SFMANJ Editor's Note: Two SFMANJ Members (J. Casey Parker, Lacey Township Dept. of Public Works; and Bradley Park, Rutgers University and Editor, SFMANJ Update) were interviewed for this article that appears courtesy of the LaceyPatch, an online a community-specific news and information platform dedicated to providing comprehensive and trusted local coverage for individual towns and communities (visit at lacey.patch.com). The article appeared on April 19, 2011; see: <http://lacey.patch.com/articles/field-fertilization-is-not-a-vanity-issue-public-works-says>

While many are looking to cut back on costs, **Casey Parker**, Director of Public Works, emphasizes the importance of fertilizing the township fields.

“A lot of people think it’s a vanity thing. It’s not just because we want our grass green. Safety is the core issue. Fertilization is a part of an overall component of the management of an athletic facility,” **Parker** said.

In March, there was a debate among committee members over the necessity of field fertilization leading to a 3-2 vote to pay the bills for TruGreen.

“After what we have invested in parks and fields we have a duty to the taxpayer to maintain them,” Mayor Gary Quinn said. “We all want to reduce dollars and save money for the taxpayers but let’s not do something tonight that we’ll all regret in five years.”

Committee members Sean Sharkey and Helen DelaCruz were opposed, stating that fertilization should be cut back and that if they were short money personally, they wouldn’t fertilize their lawns.

Residents have continuously voiced opposition to fertilizing the fields as often as the township does. In a recent “Question of the Day,” Patch asked, “Should the fertilization of township fields be cut?” Over 87 percent of the responses were opposed to the current fertilization plan.

“Most homeowners can barely afford to fertilize their own lawns once or twice a year. With proper mowing and watering and perhaps a twice a year fertilization, the grass will grow fine. The money really needs to go back to the residents by lowering their property taxes,” one resident said.

But athletic fields are a different type of turfgrass scenario compared to residential lawns due to the heavy traffic and use by athletes, said Bradley Park, Sports Turf Research and Education Coordinator for the Department of Plant Science at Rutgers University.

**Park**, also a member of the New Jersey Turfgrass Association (NJTA) added that nitrogen fertilization is a primary strategy for turf to recover from damage.

“You’re dealing with a playing surface and this playing surface is subject to use by athletes so the turf is going to decline in density and quality as a result of field play,” **Park** said. “In order to force that plant to recover from the damage that’s incurring due to use, fertilization is an important tool in the tool box to manage grass that is subject to wear and tear.”

Lacey Township uses a five-step program for their fields which includes the following:

1. Early Spring: Preemergence weed control
2. Late Spring: Preemergence and fertilization
3. Early Summer: Grub control and fertilization
4. Fall: Postemergence weed control and fertilization
5. Final: Fertilization and put turf to bed

The fertilization plan also includes slow-release nitrogen, a requirement in Gov. Chris Christie’s plan to protect the Barnegat Bay, which takes effect in 2012.

**Parker** said they have incorporated nitrogen slow-release into their plan for years and put the condition in the call for bids. Fertilization will contain no more than .75 pounds of Nitrogen.

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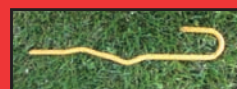
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## A Message from The President

By Don Savard, CSFM, CGM

**There is an old saying -  
“If you are not moving forward, you  
are moving backward”.**

All of us at some point in our careers find ourselves in that spot of uncertainty where it is hard to tell which way we are heading. Opportunities sometimes seem to dry-up. Those of us who have jobs find ourselves grateful to have a paycheck, yet sometimes we feel unfulfilled because whatever dreams or entitlements we thought we had just aren't happening. One thing is certain; we have to take care of our physical, mental and spiritual health in order to keep moving forward.

Being an active member of the SFMANJ helps to keep me moving forward. My mind stays sharp because I am constantly learning things. Whether it is a session I attend at EXPO or one of the numerous baseball infield clinics I have attended, if I pay attention, I will learn something I did not know before, often from the most unlikely person.

What I like about attending our events is that I find myself surrounded by people who I have plenty in common with. I'm talking about people who know and understand what it takes to do our jobs well. People who can see and point out the things I am too close to, or too blind to notice. These are people who watch each other's back. It is a wonderful network! I have introduced members of my network to each other. New alliances have been formed. The result has been good in many ways for all parties.

When I became active in this Association, I was asked to be of service. Giving service has really increased my confidence. When your confidence increases, you grow. For whatever service I have been privileged to give, the personal rewards have been much greater.

Perhaps the greatest gift of all has been the close friendships I have developed over the years with many of you. These are friendships that go far beyond what it takes to make a ball field better.

On behalf of the SFMANJ Board of Directors I cordially invite you to join us at our upcoming events. We have tried to make attending easier for you. Many (but not all) of our events such as field days and clinics are now absolutely free for members; all that we ask you to do is let us know if you are coming, mail, phone or email, it's that easy. And it sure beats trying to get a purchase order! I hope to see you soon!

Don Savard is a Certified Sports Field Manager (CSFM) and Certified Grounds Manager (CGM); Director, Athletic Facilities and Grounds, Salesianum School; and President, SFMANJ.

## 2012 Organic and Reduced Pesticide Input Turfgrass Management Courses

offered by

**Rutgers University, NJAES Office of  
Continuing Professional Education**

By Brad Park

In an effort to reduce human exposure to synthetic pesticides used on public sports fields and grounds, municipalities across New Jersey have developed either an Integrated Pest Management (IPM) policy intended to reduce synthetic pesticide inputs or an organic turf care policy intended to eliminate synthetic pesticide use entirely.

According to the New Jersey Environmental Federation, 40 New Jersey towns have banned synthetic pesticides from their municipally-managed parks and grounds and subsequently labeled these properties as 'pesticide free zones.'

Moreover, a bill was introduced by the New Jersey State Legislature in December 2010 called the Safe Playing Fields Act, which will, upon passage, ban synthetic pesticide use on grounds at day care centers, schools, and athletic playing fields within municipal, county, and state parks.

Rutgers University's New Jersey Agricultural Experiment Station (NJAES) Office of Continuing Professional Education (OCPE) is holding courses in 2012 to help municipalities and boards of education better understand their needs and goals related to organic and reduced pesticide inputs in turf management.

Organic Turfgrass Management is a 1/2-day course scheduled for Tuesday, January 31, 2012, on Rutgers University's Cook Campus that will introduce and explain organic turf management theories and methods to students.

Differences in organic, organic-synthetic hybrid, and IPM methods of maintaining lawns and grounds can be confusing. Poorly-defined words and poorly-written statements in municipal resolutions mandating turf care policies can often lead to problems regarding the appropriateness products used by turf care contractors/managers. For example, certain 'low-risk' herbicides are being characterized by some as 'organic' but these are not approved as such in the USDA National Organic Program Standards or by the Organic Materials Review Institute. There is also disagreement over whether turfgrass fertilizers derived from sewage sludge should be allowed in organic turf care. Organic programs need to be clearly defined so that there is little question as to what can and cannot be applied; this course will clarify these issues.

Turfgrass selection and establishment of well-adapted varieties are critical components of an organic program. Improved disease

Continued on page 8

By Matt Olivi

After a few successful Spring Events, Sports Field Managers Association of New Jersey (SFMANJ) is looking forward to the rest of 2011. This year, in addition to traditionally sponsored field day events and trade shows, the Activities and Education Committee is taking on some new challenges and working to establish new professional relationships. SFMANJ recognizes the legislative and budgetary issues that increasingly limit the resources we have available to us and threaten the professional cultural practices we use to efficiently manage our sports fields and grounds.

Once the snow melted in March, this year's educational program began by targeting a relatively new audience in youth sports. Specifically, Branchburg hosted a Saturday little league field maintenance clinic. This first clinic was attended by an enthusiastic group of volunteers and coaches who share the Association's goals of increasing playability and safety on the field. Several members of the SFMANJ Board of Directors were in attendance to share their knowledge and experience in field layout, infield surface drainage and moisture control. Clinic attendees were introduced to some effective tools of the trade and then took part in a step-by-step pitchers mound construction. At the end of the clinic, participants had constructed a high quality mound that they could be proud of and were given some tips on how to maintain its playability and aesthetics.

The basic format of the Branchburg clinic was duplicated the following weekend in Pine Hill, NJ. The highly dedicated Pine Hill Public School Maintenance Crew took the lead in demonstrating field maintenance techniques that clearly resulted in success. Additions to the Pine Hill Clinic included a turfgrass education segment featuring Brad Park, turfgrass research and education coordinator at Rutgers University. Attendees had an opportunity to learn about proper turfgrass selection and were given some timely tips for making effective agronomic decisions. The Pine Hill clinic also added an afternoon segment that focused on High School field maintenance procedures. Despite the cold March

temperatures, several coaches and decision makers in Pine Hill attended the Clinics and came away with some very useful information.

As the weather warmed-up over the next few weeks, the activities committee made final preparations for the annual Spring Field Day held on April 20. The multi-site field day began at the Torpey Athletic Complex in Bridgewater, home of the 2010 SFMANJ Field of the Year. Attendees witnessed a hands-on field recovery demonstration by Torpey's head groundskeeper Dave Kaczynski and had the opportunity to learn about the award-winning field maintenance procedures used by the Somerset County Parks Staff. The field day continued at the Torpey Athletic Complex for the remainder of the morning. Multiple trade show equipment demonstrations and a Soil Testing Procedure Seminar featuring Dr. James Murphy from Rutgers University were incorporated into the program. Dr. Murphy clarified many misinterpretations of nutrient management legislation and provided attendees with a multitude of necessary informational resources.

After lunch, the field day concluded at T.D. Bank Ballpark; home of the Somerset Patriots. Dan Purner, head groundskeeper at T.D. Bank Ballpark, provided an opportunity to tour a professional baseball facility and shared his insight. Fortunately, attendees were able to see field preparations being made for a game scheduled for later that day. Moving from a public facility with limited resources to a professional facility helped attendees to clearly see the similarities and differences in field maintenance procedures and management techniques.

*Continued on page 15*

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## FIELD FERTILIZATION *continues to be a* \_\_\_\_\_ \_\_\_\_\_ **Source Of Controversy In Lacey Township**

The field fertilization done by TruGreen in 2011 will cost \$25,800 while fertilization by Meticulous Landscaping in 2012 will cost \$26,250.

**Parker** explained that they do not do anything during the summer months to control fungus or weeds, which most golf courses and some field management do.

"It's not excessive. It's probably average. It takes care of our needs and it provides enough feeding and nutrients to sustain a reasonably good stand of grass," **Parker** said.

**Park**, took into account the amount of events held at the township parks and agreed that the field fertilization strategy is not unreasonable.

"High traffic athletic fields require high maintenance. The maintenance that goes into those fields has to fit the use characteristic for that field," **Park** said.

The fields would decline in quality if fertilization were cut back, both **Parker** and **Park** said.

A field could deteriorate after one football game played in adverse weather conditions, **Park** said.

**Parker** added if field management is limited, other plants would begin to take over and the fields would deteriorate quickly.

"It's kind of the domino effect if you start by eliminating the feeding process," **Parker** said.

When feeding and weed control is stopped, weeds are more aggressive, **Parker** said. The weeds don't need water or nutrients; they thrive on the environment.

Once the weeds take over, they choke the grass causing bare spots to develop, **Parker** said. Then the ground becomes hard and compact, losing drainage qualities and limiting play on the fields. The fields would become uneven and rutty with holes, which are in turn hazards.

"Cutting the fertilization schedule or the frequency is not in our best interest," **Parker** said.

If fields are let go, they could be shut down for as long as a year while the township rehabilitates them, **Park** said.

The fertilization is just a part of the turf management process in Lacey Township, **Parker** said. Public Works cuts grass and does core aerating and irrigation in-house.

While other townships may do fertilization in-house, Lacey Township's Public Works outsources fertilization because of liability with licensing, storage of materials and application equipment, **Parker** said.

The Barnegat, Berkeley, and Brick Township recreation directors did not immediately return calls to comment about their fertilization programs.

In 2003, Lacey Township received an award from the NJTA recognizing their facilities and in 2009 the township won "Field of the Year" from the **Sports Field Managers Association of New Jersey (SFMANJ)**.

"I visit a lot of fields throughout the state, and I would say ... in terms of field complexes and turf quality, he's got some of the best facilities in the state," **Park** said.

**Park** has seen fields be let go. In North Jersey, **Park** said many fields are bare soil, with a lot of weeds, and poor quality playing surface.

"Those towns that do nothing but mow, paint lines, and groom infields, their fields are in the poorest condition," **Park** said. "**Parker** is doing a very good job maintaining Lacey's public assets. If some of the community saw other facilities and saw how poorly maintained they are, they might have another viewpoint."

One board of education let their fields go and called **Park** in for advice. **Park** said he recommended seeding, fertilization, mowing, a better job irrigating, and an increase in management inputs.

"I was very impressed with Hebrew Park. It would be unfortunate to see that field go in the other direction," **Park** said.

"All this work that we've been doing for the last 18 to 20 years, what are you going to do, just let it go? At what price," **Parker** said.

*Elaine Piniat is Editor, Lacey Patch (www.lacey.patch.com).*

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## ***Rutgers University, NJAES Office of Continuing Professional Education***

*Continued from page 5*

and insect-resistance is essential to any policy that eliminates synthetic pesticide use. These recommendations will be covered in the course.

Sound soil management, mowing, irrigation, and fertilization practices are the foundation of an organic turf management program. Unfortunately, institutions often implement 'organic turf management' as nothing more than once-per-week mowing. These turfgrass stands typically have limited grass cover and are riddled with weeds. A goal of this course is to emphasize that 'organic management' does not mean 'no management.' Soil management, mowing, fertilization, irrigation, and overseeding will be discussed.

The Organic Turfgrass Management course will also examine organic and 'low-impact' pesticides. Materials described as 'organic' and 'low-impact' often differ greatly in cost, efficacy, and product handling and application methods compared to their synthetic counterparts. The advantages and disadvantages of these products need to be fully understood before an organic turf care program can be properly implemented.

Rutgers University will also be offering its popular 1/2-day course on Reduced Pesticide Inputs and Organic Options for Sports Turf. The class will be held on Tuesday, February 21, 2012, on Rutgers' Cook Campus. Increasingly, organic fertilizers and pest

control options suitable for small-area home lawns are being recommended by consultants and marketed by organic turf care companies for sports fields and large-acreage general grounds. Sports fields present unique challenges unlike home lawns for turf managers implementing organic or reduced pesticide input management. Many municipalities and Boards of Education have many acres of sports field surfaces that are subject to intense traffic. Budgets for these grounds are frequently inadequate (regardless of whether organic or synthetic) to avoid loss of turf cover, which subsequently provides the opportunity for weeds like crabgrass, goosegrass, and prostrate knotweed to overtake fields.

Weed encroachment and turf damage caused by insects (e.g., the white grub complex of Japanese beetle, Oriental beetle, etc.) may be acceptable in some home lawns; however, sports fields are playing surfaces and the tolerance for turf damage, particularly at higher levels of play, is much lower than the tolerance considered acceptable in general lawn care.

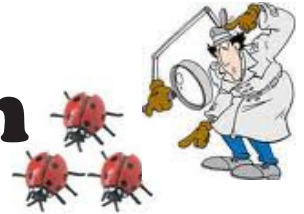
The Reduced Pesticide Inputs and Organic Options for Sports Turf course will discuss these challenges and emphasize strategies such as overseeding and soil management that must be priorities in any budget for sports turf management, particularly those that are adopting organic methods or significant reductions in synthetic pesticides use.

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# How to Conduct an IPM Scouting Expedition

Don Savard, CSFM, CGM



Let's suppose your facility follows an Integrated Pest Management (IPM) program and has in place a written an IPM policy. This policy which describes how the plan will be implemented, offers a guideline for what the thresholds are for insect populations, disease pressures, even damages such as traffic wear or drought stress. These thresholds might be based on economics (the cost of treatment vs. the cost of the pest damage) or aesthetics (when it looks bad enough). The document might even specify what control measures will be utilized or when and how they are to be implemented. Now it is your job to scout the landscape for pest problems. Where do you start?

## The site survey and inventory.

Before you begin scouting, you must develop a site map showing prominent features such as buildings, pavement, turf areas, trees, and bodies of water. Indicate where North is and show how water drains on to and off the site. This map will help you see the big picture especially if you are trying to diagnose a problem that doesn't have any easy to find clues. All of the prominent features can have a direct or indirect effect on plant health. Shade, heat from pavements, and bodies of water all influence microclimates which have an effect on plant or pest viability.

Next, identify and list all of the plant materials on your site including those that have been installed and those growing naturally. Indicate their location on your map. Note the age and condition of the plant material. You really have to know what you are looking at, it's culture and especially know what healthy is supposed to look like. Obtain the square foot measurements for the turf, tree and planting areas as this information will be useful in case you must take some kind of corrective action. Begin to record the local weather conditions such as temperature, humidity, precipitation, wind speeds and cloud cover. Keep before and after pictures of your site for additional documentation.

## What are you looking for?

You will be looking for abnormalities in the plant growth or health. If you know what healthy (for a particular plant) is supposed to look like, finding the abnormalities will become more apparent for the observant IPM scout. Abnormalities in plant health can be triggered by either (or a combination of) biotic or abiotic factors. A Biotic factor is any living component that affects another organism. Biotic causes of damage include insect (or other organism pests), bacterial, viral and fungal diseases. Abiotic factors are non-living chemical and physical components in the environment. This would include soil problems, weather related causes of damages (such as heat, cold, wind, sun, shade, drought and flooding), mechanical injury (such as traffic, wear, cultivation and other physical phenomenon).

## How to scout for problems.

First, step back and consider the "big picture" of the site as a whole and observe whether or not it is well cared for and healthy or not. For every observation made, pose the question "why or why not". As you begin to examine the plant materials, look at its micro environment and be sure to examine the plants from all angles including both sides of the leaves. If you subscribe to a weekly IPM scouting publication offered by your local cooperative extension services, you can zero in on specific targets and pests for that time period. The idea is to move systematically and efficiently through the site. Record what you see. Because your IPM plan should include economic or aesthetic thresholds, your records will provide quantifiable data to support whether or not an action should be taken.

## Don't be fooled!

The presence of insects does not necessarily indicate that there is a problem. In a balanced ecology, there is a place for all of the creatures, both predators and prey. When this delicate balance is disturbed plant health will eventually become compromised.

Are you sure that the insect that you observe is not a beneficial insect. For example, big eyed bugs (*Geocoris* spp.) are a beneficial predator often confused with the chinch bug (*Blissus* spp.), which is a pest in turf. Capture, identify and confirm that the moths flying over the turf in a zigzag pattern are indeed sod webworm adults laying eggs in the turf and not some benign flying insect.

Very often unhealthy looking turf and plant materials appear to have insect or disease damage when in fact the damage was of an abiotic cause. For example, the irregular off color patterns in turf may not be a fungal disease but rather an indication that an irrigation head might be functioning improperly. Finding the real source of the problem is your objective. Keep in mind that plants may not necessarily succumb because of just one cause of death, but often to secondary and tertiary causes. Keep an open mind and be observant!

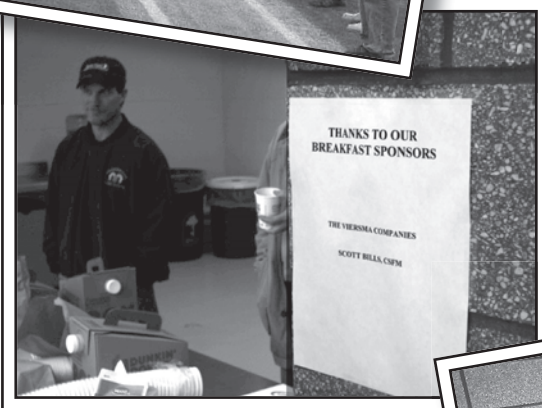
## Essential tools you will need for IPM investigation.

### For examination:

- 10X Hand lens, (Binoculars for looking into trees)
- Flashlight
- Thermometers, (soil and ambient air)
- Measuring tape
- Sharp Knife and Pruning shears
- Soil probe, Spade or Trowel
- Bucket, Soil screen sieve

Continued on page 12

# PHOTO RECAP OF SFMANJ SPRING FIELD DAY



# APRIL 20, 2011 *Torpey Athletic Complex and TD Bank Ballpark, Bridgewater, NJ*

By Brad Park





## 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](mailto:clarke@aesop.rutgers.edu) or

John Pearson, Director of Leadership Gifts at the Foundation, by calling  
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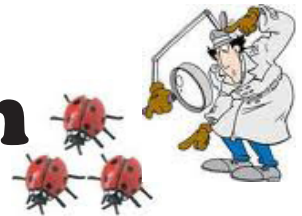
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Continued from page 9

# 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*

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Continued from page 3

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 Sam Pepe  
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 Nick Pursakowski  
 Gerald Redmond  
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 Stephen Ruggiero  
 James Saner  
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 Brick Twp  
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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*

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# Key Points Pertaining to Management of Turf Using “Low-Impact” Pesticides

By Brad Park, Dr. James Murphy, Dr. Bruce Clarke, and Dr. Albrecht Koppenhöfer

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 seedlings. 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., Nemasys® 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

*Continued on page 17*



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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. Coord., 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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## 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. Coord., Rutgers University; SFMANJ Board Member; and Editor, SFMANJ Update*

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