# UPDATE

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# SFMANJ Summer Field Day to Feature Sports Turf Legend George Toma

Craig Tolley\*

Sports Field Managers Association of New Jersey (SFMANJ) will hold its annual Summer Field Day at the County College of Morris in Randolph, NJ on June 28, 2006. The keynote speaker will be George Toma.

Mr. Toma has been a leading professional in the sports turf management industry for more 50 years. He has been the head groundskeeper for Major League Baseball's Kansas City Royals and the NFL's Kansas City Chiefs. Mr. Toma was selected to prepare the field for Super Bowl I in 1964 (Los Angeles, CA) and all following Super Bowls up to Super Bowl XXXIX in 2005 (Jacksonville, FL). He also worked on U.S. Olympic sites in Los Angeles, CA and Atlanta, GA in 1984 and 1996, respectively and all nine American venues for World Cup Soccer in 1994. Through his career Mr. Toma has appeared in many articles and television features including an appearance in the motion picture "Black Sunday" in 1973. He has received multiple awards including the 2005 Val Pinchbeck Service Award for his work on 36 Pro Bowls, and the 2001 Dan Reeves Pioneer Award at the Pro Football Hall of Fame in Canton, OH. In 1992, Toma was named to John Madden's All Madden Team.

As always, the Field Day will feature hands-on demonstrations by leading industry vendors. These demonstrations will be conducted on working sports fields showcasing the newest technology in sports turf management equipment. In addition to equipment demonstrations, attendees will have the opportunity to attend educational presentations on pest management topics that will qualify for re-certification credits for licensed pesticide applicators. Keep an eye out for promotional mailings! For information contact SFMANJ at 908-730-7770.



George Toma, the 'Marquis de Sod' and Super Bowl turfgrass consultant, will be speaking at the upcoming SFMANJ Summer Field Day on Wednesday, June 28, 2006 at the County College of Morris.

\* Craig Tolley is Professor, Landscape and Horticultural Technology, County College of Morris; and SFMANJ Board member

### A Look Back at SPRING FIELD DAY 2006

**Brad Park\*** 

There is never a lack of practical information offered at a Sports Fields Managers Association of New Jersey (SFMANJ) Field Day. This year's Spring Field Day held at Shore Regional High School, West Long Branch and Monmouth Park Racetrack, Oceanport was no exception. A since 'thank you' goes out to Marco Oliveira, Facilities Manager, ARAMARK Corporation, Shore Regional High School and the New Jersey Sports and Exposition Authority and Monmouth Park Racetrack for hosting the locations comprising the Field Day.

Following morning coffee and donuts sponsored by Storr

Tractor Co. and Northern Nurseries, the day began with a panel discussion related to various issues surrounding synthetic infill fields. Scott Bills, Northern Nurseries, Stan Moscrip, Athletic Field Development, and Brad Park, Rutgers Univ. participated in the panel and explored aspects of infill fields related to selection of base materials, glued vs. sewn seams, infill composition, and maintenance protocols. Sean Connell, Georgia Golf Construction and SFMANJ Board member is recognized for making Stan Moscip's participation possible.

Pedro Perdomo, Rutgers Coop. Res. and Ext. of Morris

Continued on page 6



# WELCOME NEW & RENEWED SFMANJ MEMBERS

Currently we have 287 new & renewed members. In the beginning of November, SFMANJ mailed invoices for 2006 membership dues to all current members. If you did not receive an invoice, please contact us at 908 730-7770 or download the 2006 membership form available at www.sfmanj.org. Remember to mail your renewal/payment direct to SFMANJ, PO Box 370, Annandale, NJ 08801.

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#### MISSION STATEMENT:

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.

#### Contact us at:

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This newsletter is the official bi-monthly publication of the Sports Field Managers Association of New Jersey.

For information regarding this newsletter, contact: SFMANJ at (908) 730-7770 or Brad Park at (732) 932-9711, x127

### Editor

Brad Park, Rutgers University Email: park@aesop.rutgers.edu

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

## RUTGERS CORNER -

LATE SPRING/SUMMER TURE ESTABLISHMENT

Brad Park\*

In New Jersey and throughout the Mid-Atlantic and Northeast, the ideal time to establish cool season turfgrass species from seed is late summer through early fall (August 15-October 1). Weather can be dry at this time of year, allowing for ideal conditions to cultivate soils, prepare seedbeds, and apply seed. Soil temperatures are such to allow rapid germination of seed and vigorous growth assuming adequate supply of water and proper soil fertility. While annual bluegrass encroachment can be a serious problem associated with this establishment timing, summer annual weeds such as crabgrass, goosegrass, and prostrate knotweed are typically not germinating in late summer though early fall.

Despite intense field use in late summer and throughout the fall, seed can still be introduced to a sports field. While not as effective as slit-seeding methods, sports field managers have found success by simply applying seed through a rotary spreader before a game and allowing athletes "cleat-in" the applied seed and thus achieve seed-to-soil contact. Perennial ryegrass is an excellent species choice for this type of establishment procedure. To access the Rutgers Cooperative Research and Extension Fact Sheet **Perennial Ryegrass Varieties for New Jersey Sports Fields** visit www.rcre.rutgers.edu/pubs

If late spring and summer is the time in which turf estab-

lishment is chosen, it must be recognized that the chances of a seeding failure are high. The pressure from summer annual weeds can be very high, particularly if the site has been plagued with crabgrass, goosegrass, and knotweed in previous years and the weeds have been allowed to set seed the previous fall and subsequently replenish the soil seed bank. Tupersan (siduron) is a preemergence herbicide that may be applied at the time of seeding and will provide a level of crabgrass control without inhibiting cool season turfgrass establishment. Tupersan is not labeled for preemergence control of goosegrass.

Summer annual grassy weeds may need to be treated with a postemergence herbicide to produce a clean turfgrass stand and guard against these weeds producing additional seed in the fall. Products such as MSMA, DSMA, Drive (quinclorac) and Acclaim (fenoxaprop) are postemergence products that should be considered for this use. Note that the phytotoxic effects of these herbicides on cool season turfgrasses will be dependent upon specific turf species as well as degree of establishment and while products such as MSMA, DSMA, and Drive are effective on immature crabgrass, these products will not control goosegrass. Acclaim will control goosegrass as well as multi-tillered crabgrass. The above listed Rutgers Cooperative Research and Extension website provides access to the Fact Sheet Crabgrass and Goosegrass **Control in Cool Season Turfgrass** authored by Dr. Steve Hart, Extension Specialist in Weed Management in Turfgrass and Ornamentals, Rutgers Univ. This document provides detailed information on these products and is an excellent reference to assist in product choice.





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### RUTGERS CORNER (continued from page 4)

For a late spring/summer establishment project, the access to irrigation is critical. Even if favorable weather allows for seedbed preparation, seeding, and initial germination in lieu of irrigation, the onset of hot summer temperatures will kill young immature turfgrass seedlings if supplemental water is not available when needed. If irrigation is not available, the best option is to delay the seeding project to late summer/early fall and utilize a mulch such as straw following seeding to assist the soil surface in retaining moisture.

Summer turfgrass establishment is especially prone to diseases caused by *Pythium* and *Rhizoctonia* spp. *Rhizoctonia* is the fungal organism that causes brown patch. The collective term for the effects of these seedling diseases prior to and following turfgrass germination is 'damping-off.' Hot and humid weather, excessive soil moisture, and over-fertilization with nitrogen (N) create an environment where these diseases can flourish. These diseases can be difficult to prevent during the summer as hot temperatures and oppressive humidity are beyond a sports field manager's control. There is a fine line between keeping a seedbed moist and over-irrigating and as well as ensuring adequate N is available to new seedlings and applying too much N as to promote diseases such as *Pythium* and brown patch.

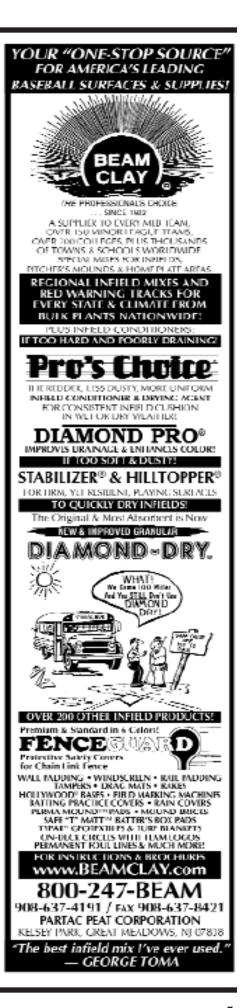
Fungicides are a chemical means of combating turfgrass diseases as part of summer establishment, particularly where excessively hot and humid temperatures are in the forecast. Subdue GR (metalaxyl) is one such fungicide that can be applied following seeding to prevent Pythium. This is a granular formulation and can be applied with conventional spreading equipment. The Rutgers Cooperative Research and Extension Fact Sheet **Plant Disease Control: Chemical Control of Turfgrass Diseases** is available for download at the previously mentioned website and provides additional chemical control strategies for turfgrass diseases.

The drawbacks of late spring and summer turfgrass establishment are numerous and the chances of seeding failure are high for reasons detailed above. Textbooks authored when turfgrass science was in its infancy made the case for late summer and early fall establishment of cool season turfgrasses. In 2006, the case is still strong.

\*Brad Park is Sports Turf Res. & Ed. Coor., Rutgers Univ.; SFMANJ Board member; and Editor, SFMANJ Update



Railbirds – Field Day attendees line-up along the inside rail to listen to Dr. James Murphy, Rutgers Univ. (left) elaborate on the Monmouth Park turf course reconstruction as part of SFMANJ's Spring Field Day 2006.



### A Look Back at SPRING FIELD DAY 2006 (continued from page 1)

County followed with a presentation explaining how weeds can be indicators of turfgrass problems and chemical and non-chemical approaches to control weeds.

The Field Day moved outside where Fred Castenschiold, Storr Tractor Co. described various pieces of equipment that can be used to improve sports field playability. Jim Hermann, CSFM, Total Control, Inc. provided information on maximizing surface drainage across the turfgrass and skin portions of baseball infields.

Scott Bills, Northern Nurseries sponsored and arranged a hands-on pitchers' mound construction demonstration utilizing clay bricks. Facilitated by Ron Martin, Mar-Co Clay Products, Inc., various Field Day attendees got the opportunity to participate in the construction of the Shore Regional HS mound.

Next on the agenda was a short car ride over to Monmouth Park Racetrack, a thoroughbred racing facility appropriately nicknamed, "The Shore's Greatest Stretch." Lunch was served on the 3<sup>rd</sup> floor of Monmouth Park's venerable Clubhouse and was sponsored by Storr Tractor Co. and Northern Nurseries.

Dr. James Murphy, Rutgers Univ., a primary consultant involved in the design and construction oversight of the new turf course, gave a unique tour of the reconstructed thor-

oughbred turf course. The tour began on the front stretch and moved to a newly constructed racing chute. A second racing chute was incorporated into the reconstruction to create a new starting point for races. Discussion included the rationale for utilizing existing topsoil, the inclusion of a largely sand material used in septic systems to serve as a new sub-base, re-contouring the racing surface to allow more racing lanes and greater banking in the turns, and future turf-grass management strategies.

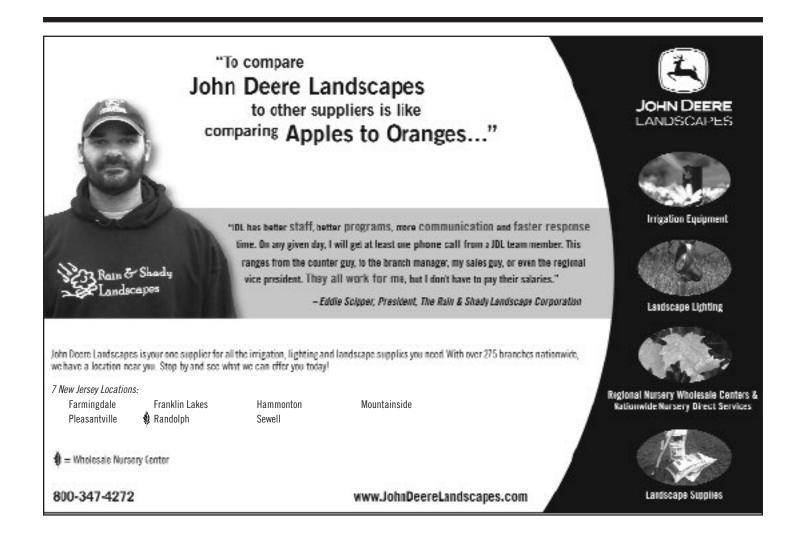
The tour concluded with a walk down the track's original racing chute and the opportunity to witness the final stages of the construction process. Field day attendees observed Tuckahoe Turf Farms installing big roll sod consisting of a tall fescue/Kentucky bluegrass mix.

The Monmouth Park turf course is being reconstructed in preparation for the track's hosting of the Breeders Cup in October 2007.

A hallmark of SFMANJ's Spring Field Day is strong attendance and the networking opportunities that come with many sports field managers gathering in one setting. This year's Spring Field Day lived-up to the SFMANJ tradition.

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







### Dr. Henry W. Indyk **Graduate Fellowship Turfgrass Science**

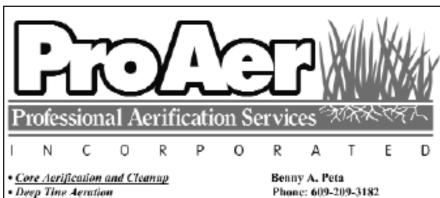
As many of you know, the turfgrass industry lost a dear friend and colleague in September 2005. We will all miss Henry very much and would like to insure that his legacy lives on. The Indyk family would like to establish a memorial fellowship to support graduate students interested in applied turfgrass 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 <a href="mailto:clarke@aesop.rutgers.edu">clarke@aesop.rutgers.edu</a>) or John Pearson, Director of Leadership Gifts at the Foundation, by calling (732) 932-7899 or email: pearson@winants.rutgers.edu

### DID YOU KNOW?

The Wisconsin Department of Environmental Protection listed Kentucky Bluegrass as an invasive plant in 1997 as part of a publication titled, "Wisconsin Manual of Control Recommendations for Ecologically Invasive plants."



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## FIELD OF THE YEAR 2006

### Are you proud of your field? Do you want to show-off your hard work?

If you answered 'yes' to both of these questions, the Field of the Year (FOY) Contest 2006 is right for you. Sports Field Managers Association of New Jersey (SFMANJ) is announcing its annual FOY contest. Individual awards will be presented to the school, FOY and parks/recreation FOY.

### **ENTERING** is easy, send to:

SFMANJ Contest, Po Box 370, Annandale, NJ 08801 Entries must be received by September 30, 2006

### **ELIGIBILITY:**

- •Two categories; School or Parks/Recreation <u>fields only</u>
- •Current member of SFMANJ
- Natural grass fields only

### **SEND:**

- •Color photos of your natural grass field (10 maximum)
- •Name of facility and location
- Name of owner
- •Your name, position and contact number

### **CRITERIA** for awards:

- •Playability and appearance of the playing surfaces
- •Based on photos and a site visit by the SFMANJ Award Committee
- •Feel free to have sports groups in your photo

### **AWARDS:**

Winners will be honored with a plaque at New Jersey Turfgrass Expo 2006 (December 5-7, 2006) and be interviewed for a feature article in SFMANJ Update newsletter (also receive a two-night stay at Tai Mahal, Atlantic City and three days of education).

### NOTE:

\*Photos will <u>not</u> be returned and may be used on SFMANJ website and promotional settings.

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# WHITE GRUBS IN ATHLETIC FIELD TURF-BIOLOGY AND MANAGEMENT

Dr. Albrecht M. Koppenhöfer\*

A complex of primarily introduced white grub species are the most widespread and destructive turfgrass insect pests in the northeastern USA. Until recently, the Japanese beetle (*Popillia japonica*) was regarded as the key species, but surveys have indicated that the oriental beetle, [Anomala (=Exomala) orientalis] has become the most important white grub species in New Jersey and some neighboring areas. The average white grub species composition in New Jersey home lawns in the fall of 2001 and 2002 (11 counties, 130 sites. emphasis on central NJ) was 63% oriental beetle, 14% Asiatic garden beetle (Maladera castanea), 12% Japanese beetle, 7% northern masked chafer (Cyclocephala borealis), 3% May/June beetle (Phyllophaga spp.), 2% green June beetle (Cotinis nitida), and 1% European chafer (Rhizotrogus majalis) (Koppenhöfer et al. unpublished data). However, it is important to keep in mind that species composition can vary considerably among sites and also from year to year.

Different white grub species can vary significantly in susceptibility to different control agents. Therefore proper species identification can be critical. The safest way to identify white grub species in the larval stage is to examine the raster pattern just in front of the anal slit on the grub's underside. Identification is the easiest when the grubs are 3<sup>rd</sup> instar larvae but at this point, the damage is often already done or impending. Therefore, identification should be done when grub populations are being monitored to determine whether curative treatments are necessary, i.e., in mid August.

Although the general life cycle of the important white grub species is very similar, the egg-laying period (major target for preventive treatments) and accordingly the occurrence of the voracious 3<sup>rd</sup> larval stage can vary by a few weeks among species; another reason for obtaining knowledge about the prevalent species in a turf site. Adult beetles emerge between June and August, mate, and the females return into the soil to lay eggs (total of about 20-60) individually or in small batches over a period of 2-4 weeks. The egg stage, 1<sup>st</sup> larval stage, and 2<sup>nd</sup> larval stage each last about 3 weeks so that through September most of the grubs will molt to the 3<sup>rd</sup> and last larval stage. As the soil temperatures cool down in October, the grubs move to deeper soil layers to stay below the frost line to overwinter. During this time most species are more or less inactive. As the soil temperatures warm up in spring, the grubs come up to the root zone to feed for another 4-6 weeks in April and May before they pupate in the soil.

### Signs of infestation

White grubs damage turf by chewing off roots close to the soil surface. The voracious feeding of the larger late 2<sup>nd</sup> stage and 3<sup>rd</sup> stage grubs, when combined with hot and dry conditions, can result in quick and extensive loss of turf from late August through mid-October. All cool-season and many warm-season grasses are susceptible to white grubs. Being alert to the signs and symptoms of white grub infestations will help avoid unexpected loss. Early signs of a white grub infestation include gradual thinning, yellowing, wilting in spite of adequate soil moisture, and the appearance of scattered, irregular dead patches. The patches grow and may join together until large turf areas are affected. Due to the grubs' tunneling activity, infested turf feels spongy underfoot and can be pulled up easily, exposing the C-shaped white grubs. Secondary, often more severe, damage can be caused by verte-

brate predators (e.g., crows, skunks, raccoons), that tear up the turf to feed on the grubs.

## Early detection, sampling and monitoring, damage thresholds

Mid- to late August, when the grubs are primarily 2<sup>nd</sup> instars, is the time to monitor for potentially damaging white grub populations. The only way to accurately determine the presence of white grubs is through examining the upper 3-4" of soil under the turf. Most conveniently turf/soil plugs are sampled with a standard golf course hole cutter (4.25" diam ~ 0.1 ft<sup>2</sup>). More tedious is the use of an oversized hole cutter (6" diam ~ 0.2 ft<sup>2</sup>; "turf mender") or cutting a square-foot sample with a flat-blade spade. The plugs can be broken up and examined on the spot (preferably on a tray). To improve sample survival, split the soil end of the sample first into halves and then guarters and smaller pieces to reveal the grubs that typically will occur near the thatch-soil interface. Record the number, species (check raster pattern with a hand lens), and life stages on a data sheet or map. Place the soil back in the hole and replace the sod cap. Irrigate to promote turf recovery especially when dry. Because white grub populations have a patchy distribution, several samples should be taken in a grid pattern. Rarely does an entire turf area require treatment.

To save time and effort, sampling can be concentrated on suspected infestation areas, high risk or low tolerance areas, or areas with a history of grub infestations. If historical information is not available and/or a more accurate idea of grub distributions is necessary, mapping and surveying is the thing to do. Using graph paper, prepare a general map of the turf area including landmarks. Mark sampling spots at 6-10 feet (lawns) or 10-20 feet (sports fields) apart in a grid pattern. At each spot take a sample and record number, species, and stage of grubs found (also record 0s!). Experienced samplers can process about 20 samples per hour.

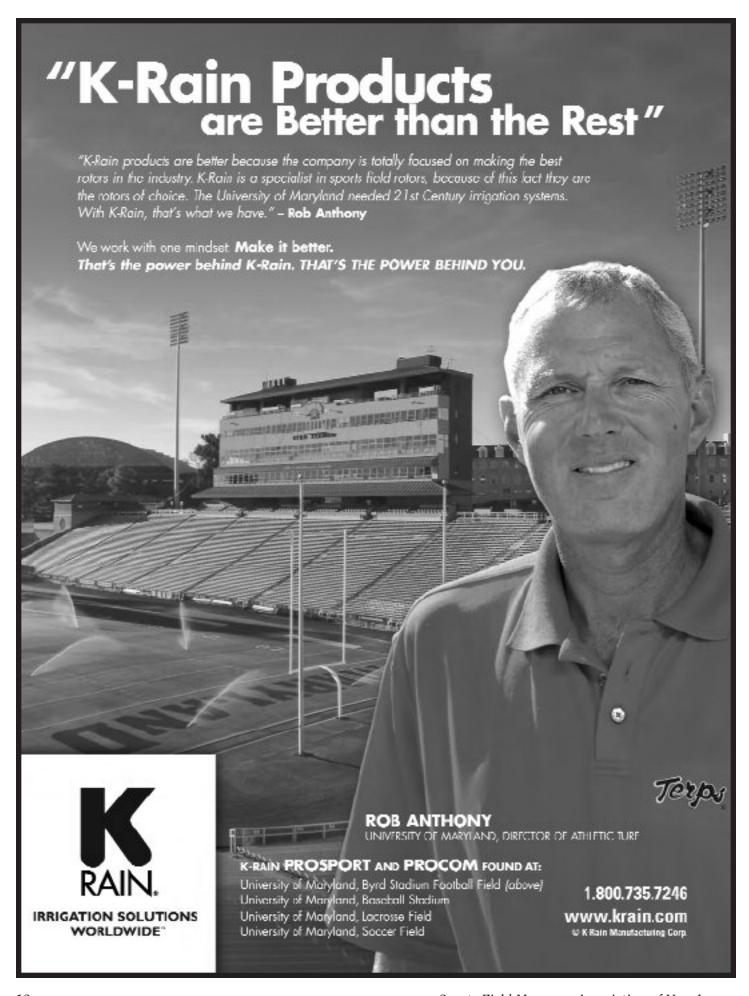
To determine whether treatment is required, transform the grub numbers into 'per ft²'-values and compare to damage thresholds. Most published damage thresholds lie in the range of 6-10 (Japanese beetle, oriental beetle, masked chafers, European chafer) and 15-20 (Asiatic garden beetle) grubs per ft². However, damage thresholds vary considerably with grass species, management type, and climatic conditions. For example, well-maintained tall fescue turf may tolerate 30 or more grubs per ft² without any signs of turf damage. In contrast, perennial ryegrass is the least grub tolerant of the cool-season grasses and 10 grubs per ft² are very likely to cause damage. With experience, turf managers should develop their own range of thresholds for the various turf areas they are responsible for.

### Preventative white grub control

Because of their long residual in the soil, the neonicotinoids imidacloprid (Merit) and clothianidin (Arena), and the insect growth regulator halofenozide (Mach2), can be applied as early as May and June, respectively, to provide season-long white grub control. If applied that early, various other insect pest can also be controlled (Merit, Arena, and Mach2: billbugs, annual bluegrass weevil, greenbugs; Arena and Mach2: cutworms, sod webworms; Arena: chinch bugs). If white grubs are the primary targets, the optimal application time for Arena, Merit, and Mach2 is June/July when the female beetles are laying eggs. At

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May/June 2006



### WHITE GRUBS IN ATHLETIC FIELD TURF-BIOLOGY AND MANAGEMENT

(continued from page 11)

this time, control efficacy against many white grub species is typically in excess of 90%. As the larvae hatch and go through their 3 larval stages, they become less susceptible to these insecticides (and other insecticides). Applications against the 3<sup>rd</sup> larval stage in September are not recommended.

However, some white grubs species are less susceptible to some of these compounds. Oriental beetle and European chafer are very susceptible to Arena and Merit but MACH2 has only provided 50% control on average and should be applied right around peak egg-laying activity. Japanese beetle is very susceptible to all three compounds, and even mid-September applications can still provide around 70% control. Applications after mid-August, however, may not kill the grubs quickly enough to avoid impending damage. Masked chafers are less susceptible to Merit, and where this species prevails, applications should be done during egg laying (June-July) and at the highest label rate. The Asiatic garden beetle is not susceptible to Mach2 and Merit and Arena may provide acceptable control only at the highest label rate.

Because preventative applications have to be done before white grub populations can be estimated through soil sampling they are often applied to areas that would need only partial or no control at all. This increases the cost of grub management, increases the chances of resistance development, and may in the long-term dramatically reduce populations of natural enemies by depriving them of prey or hosts. Smart turfgrass manager will restrict preventative applications to high-risk areas, i.e., areas with extremely low damage threshold and tolerance, areas with a history of white grub infestations, and areas with high beetle activity (egg-laying) in June-July.

### **Curative white grub control**

If soil sampling has revealed white grub populations, areas with densities above treatment thresholds or ongoing damage may need to be treated. This curative control approach works best if applied while the grubs are still smaller (i.e., August to early September). Monitoring and sampling helps optimize application timing and restrict treatments to areas that actually have high grub populations. Once the grubs have reached the 3rd instar, they are much harder to control. Spring applications (late April through May) are generally the least effective and rarely justified because the grass can outgrow most grub populations. Only very high grub populations, unduly stressed turf, or digging grub predators can cause damage at this time. Any necessary treatments need to be applied before the grubs pupate. Due to the annual life cycle of the grubs, areas that had no damaging infestation or were successfully treated in the previous late summer/fall,

(continued on page 14)



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### White Grubs in Athletic Field Turf-Biology and Management

(continued from page 13)

will not need treatment in the following spring.

For best results with any insecticide, mow the turf and rake out dead grass and thatch before treatment. This will reduce the amount of insecticide bound up by surface debris. Irrigate with 0.25-0.5" water immediately after treatment (or timely rainfall) to leach the insecticide into the root zone where the grubs are feeding. Irrigation also increases insecticide contact by drawing the grubs closer to the surface. If the soil is very dry, pre-treatment irrigation 1 day before treatment will also increase efficacy by bringing grubs closer to surface and reducing thatch binding and evaporation of liquid treatments. However, do not apply soil insecticides to saturated soil. Also, granular formulations need to be applied to dry grass to allow the granules to sift down into the thatch. Liquid and granular applications are usually equally effective, however, granular formulations are more forgiving if post-treatment irrigation is delayed.

Successful treatments typically kill 75-90% of the grubs but product performance varies with soil type, thatch thickness, and grub species. Therefore, evaluate treatments and keep record of product performance. While speed of kills varies with insecticides, soil insecticide applications never work overnight. Affected grubs usually turn yellow or brown within a week of treatment. Wait at least 1-2 weeks before evaluating. But don't wait longer than 3 weeks to allow for a follow-up treatment if the 1st treatment was ineffective. In the latter

case, don't apply the same product again. Rather try a different compound. While development of grub resistance to insecticides is unlikely with the presently used short-residual insecticides, some grub control failures can be caused by enhanced microbial degradation of the insecticide, especially after repeated insecticide use. Avoid unnecessary applications and alternate insecticides.

The range of insecticides available for curative white grub control has already and will continue being effected by the implementation of the Food Quality Protection Act of 1996. Presently only two synthetic insecticides are labeled for grub control: the organophosphates trichlorfon (Dylox) and the carbamate carbaryl (Sevin). Against larger larvae, Dylox appears to be more effective. Presently available nematode products for grub control contain the species *Heterorhabditis bacteriophora* or *Heterorhabditis megidis*. These nematodes can be very effective against Japanese beetle grubs, but are less effective against grubs of oriental beetle, Asiatic garden beetle, and masked chafers, and ineffective against European chafer. While these nematode products have to be handled and stored with more care than chemical insecticides (you are dealing with living organisms!), they have the advantage of no reentry interval due to their non-toxicity.

\*Dr. Albrecht M. Koppenhöfer is the Associate Extension Specialist in Turfgrass Entomology, Rutgers Univ.



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# Building a Better Toolbox-Tools You Can Use! - Part 4

Don Savard, CSFM\*

The Best Management Practices Toolset-Tools for heading problems off at the pass.

Best Management Practices (BMP's) can be defined as a common sense, practical sequence of procedures using the best available science and technology to protect, maintain and sustain a healthy, functional landscape while providing good stewardship of valuable resources. In the context of sports field or grounds management, it means doing the little things right to get the greatest effect. As we begin to become more educated about Integrated Pest Management and its impact on our daily work lives, we can reflect how certain things that were one common place (such as applying pesticides) now have certain restrictions. Best Management Practices are simply just "doing the next right and respon-

sible thing" to the grounds or the sports field to cause a favorable and beneficial response. BMP's as tools minimize the need for applying additional inputs (seed or sod, fertilizers, pesticides and water), save money, and help the environment.

Of all of the BMP's, mowing is a good place to start. It is one task that all sports field or grounds managers deal with at least weekly. Turf mown incorrectly predisposes it to stress, disease, weed pressures, poor appearance and even death. On the other hand, turf mown correctly will look better, be healthy and not require as many inputs. The last issue of UPDATE featured an article by Dr. Jim Murphy from Rutgers "Evaluating Your Sports Turf Mowing Program." Dr. Murphy's article explained how proper mowing BMP's, that is, proper mowing height for the species, mowing frequency and the  $1/3^{\rm rd}$  rule, contribute to the overall health and vigor of the turf. Murphy went on to explain the consequences for not adhering to these practices. It is more economical to mow properly than to just hack.

Another good BMP is species selection. Consider the intended use of the turf and match it to the species. What kind of turf would grow best on the area in question, and would it survive the natural and manmade conditions of the site? Pick the right grass type and you might find that you will spend less on inputs The National Turfgrass Evaluation Program (NTEP) evaluates turfgrasses and rates them. Check out their website <a href="https://www.ntep.org">www.ntep.org</a> for more information.

Consider how you fertilize. If you have the soil tested routinely, and follow a nutrient management plan (fertilizer amounts and timing) you can provide the turf with only the nutrients that it needs and save money because you won't be buying nutrients that are already in abundance in the soil. Proper timing and handling can save money and make the application more efficient. Practices such as avoiding applica-

tions on frozen soil or just before a thundershower are common sense. Remember, the idea is to get the nutrients into the soil to the roots, not to lose them in the environment from runoff or erosion.

Create a pest management plan for weeds, insects and diseases. Do you set economic thresholds for diseases or pests and the damage that they cause? At what point do you make the decision to treat? How much damage can you tolerate? Would you consider changing your management practices (i.e. mowing height or time of day of irrigation) if it could minimize the severity of an outbreak?

Many state governments suggest numerous BMP's concerning irrigation and its counterpart runoff. Improper irrigation practices and poorly thought-out drainage and sediment runoff waste valuable water and soil resources and contributes to non-point source pollution of nitrogen and phosphorus in our waterways. Simple BMP's such as adjusting sprinklers to avoid watering impervious surfaces such as roadways and parking lots, or irrigating in the early morning hours to minimize disease activity enhance your management program.

Best Management Practices are guidelines. Many BMP's are site specific. The point is, BMP's will save time, money and make better results possible. As a responsible professional, that is your collateral. Enjoy the toolset.

\* Don Savard is a Certified Sports Field Manager; Director, Athletic Facilities and Grounds, Salesianum School; and SFMANJ Vice-President



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Within the classification of sand, very fine sand is defined as 0.05-0.10 mm;

fine sand: 0.10-0.25mm;

medium sand: 0.25-0.50

mm; coarse sand:

0.50-1.00 mm; and very

coarse: 1.0-2.0 mm.

# Galendar of Events

### SFMANJ Summer Field Day

Featuring George Toma, Super Bowl Turf Consultant Wednesday, June 28, 2006 County College of Morris Randolph, NJ (908) 730-7770

### **SFMANJ District III Meeting**

Wednesday, July 12, 2006 FirstEnergy Ballpark - Lakewood Blueclaws Lakewood, NJ (908) 730-7770

### Rutgers Lawn & Landscape Turf Research Field Day

Wednesday, August 2, 2006 Plant Science Research & Extension Farm Adelphia, NJ 9:00 am – 3:00 pm

### Rutgers Golf and Fine Turf Research Field Day

Thursday, August 3, 2006 Hort Farm II North Brunswick, NJ 9:30 am- 3:15 pm

### New Jersey Turfgrass Expo 2006

December 5-7, 2006 Trump Taj Mahal Casino-Resort Atlantic City, NJ (215) 757-6582

www.njturfgrass.org



Spring Field Day attendees help to build a pitchers' mound under the guidance of Ron Martin, Mar-Co Clay Products, Inc. at Shore Regional HS.

# **Spring Field Day 2006**

Goodfellas – Stan Moscrip, Athletic Field Development (left), Sean Connell, Georgia Golf Construction (center), and Karl "Chuckie" Singer, City of Bayonne (right) shoot the breeze during a break at the 2006 Spring Field Day.



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