EXPO 2006: DECEMBER 5-7
ATLANTIC CITY, NEW JERSEY
School IPM Session to be held Tuesday afternoon, December 5, 2006
Pesticide credits available for all sports field managers sessions

Brad Park*

The 31st Annual New Jersey Turf and Landscape Conference and Expo will be held December 5-7, 2006 at the Trump Taj Mahal in Atlantic City, NJ. Expo 2006 is proudly presented by New Jersey Turfgrass Association and New Jersey Landscape Contractors Association. Cooperating organizations include Golf Course Superintendents Association of New Jersey, Sports Field Managers Association of New Jersey, and Rutgers University.

The Expo 2006 sports field managers program will feature a School IPM session on Tuesday afternoon, December 5, from 1:00-4:00 pm. The concept for this session began at last year’s Expo following a talk on the NJ School IPM law. Numerous questions were raised and confusion and aggravation were the overwhelming tone of the discussion. Recognizing the need to bring clarification to this controversial subject, an entire afternoon has been devoted to School IPM. The IPM session will begin with talks describing how to implement conventional turfgrass and indoor IPM practices. A representative from the New Jersey Department of Environmental Protection will follow and will be taking questions on the current School IPM law. Lastly, a panel consisting of New Jersey sports field managers will provide insight as to how they notify school faculty and staff, students, and parents prior to making pesticide applications on the school properties for which they are responsible and conform to the current law.

continued on page 4
November/December 2006

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Welcome New & Renewed Members ................................................. 3
Membership Form ................................................................. 3
SFMANJ Board of Directors ....................................................... 3
New Jersey Turf & Landscape Conference and Expo 2006: Sports Field Managers Program ................. 5
Outsourcing Grounds Maintenance Services ................................ 8
Rutgers Corner - Seed and Fertilizer How much was applied? ................................................... 9
2006 Proud Sponsor Directory ...................................................... 10
Do Your Athletic Fields Need Turf Blankets? ............... 11
Applying Gypsum - When it is Really Needed ..................... 14
Looking for Success? Look No Further... Your Staff .......... 16
Calendar of Events ................................................................. 17
Year in Review ................................................................. 18

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Welcome New & Renewed Members ................................................. 3
Membership Form ................................................................. 3
SFMANJ Board of Directors ....................................................... 3
Expo 2006: New Jersey Turfgrass Industry Unites in a Historical Joint Venture .............................. 5
New Jersey Turf & Landscape Conference and Expo 2006: Sports Field Managers Program ................. 5
Outsourcing Grounds Maintenance Services ................................ 8
Rutgers Corner - Seed and Fertilizer How much was applied? ................................................... 9
2006 Proud Sponsor Directory ...................................................... 10
Do Your Athletic Fields Need Turf Blankets? ............... 11
Applying Gypsum - When it is Really Needed ..................... 14
Looking for Success? Look No Further... Your Staff .......... 16
Calendar of Events ................................................................. 17
Year in Review ................................................................. 18

Inside This Issue

Welcome New & Renewed Members ................................................. 3
Membership Form ................................................................. 3
SFMANJ Board of Directors ....................................................... 3
Expo 2006: New Jersey Turfgrass Industry Unites in a Historical Joint Venture .............................. 5
New Jersey Turf & Landscape Conference and Expo 2006: Sports Field Managers Program ................. 5
Outsourcing Grounds Maintenance Services ................................ 8
Rutgers Corner - Seed and Fertilizer How much was applied? ................................................... 9
2006 Proud Sponsor Directory ...................................................... 10
Do Your Athletic Fields Need Turf Blankets? ............... 11
Applying Gypsum - When it is Really Needed ..................... 14
Looking for Success? Look No Further... Your Staff .......... 16
Calendar of Events ................................................................. 17
Year in Review ................................................................. 18

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.
A total of two core credits and four Category 3B credits will be available to the Certified pesticide applicators in attendance during the sports field managers’ sessions. Offering applicators the recertification credits needed for their jobs is an important aspect of Expo.

Because synthetic surfaces are becoming a greater part of the sports field landscape, Expo has again been designed to address the issue of synthetic. Dr. A.J. Powell, University of Kentucky, will be speaking on cost comparison between natural and synthetic fields. Joel Taylor, Haddondenfiep, will follow by describing his experiences with a synthetic infill system one year after installation. These synthetic talks are scheduled for Tuesday, December 5 as part of a session beginning at 9:00 am.

Expo 2006 will also feature an Early Bird Sports Field Managers Networking Roundtable. Based on its success in 2005, a similar Roundtable will be held on Wednesday, December 6 at 7:30 am. All are welcome and encouraged to attend.

A hallmark of the annual Expo is the trade show. The trade show grand opening will be at 3:30 pm on Wednesday, December 6 with free food and beverages to be served. The partnership between NJTA and NJLCA will have the effect of bringing many new vendors to Expo 2006. The trade show is also scheduled for Thursday, December 7 from 10:00 am – 2:00 pm. Lunch will be served on the trade show floor.

Registration for Expo 2006 is easy! Registration can be done online by visiting www.njturfgrass.org or printable mail-in registration forms can be accessed on this site. Additional information can be obtained by calling 215-757-6582. See you in Atlantic City!

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

NJ Turf & Landscape Conference and Expo 2006
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Expo 2006 will feature online registration at: www.njturfgrass.org

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Top 10 Strategies to Engage Your Staff

1. Seek input and listen. Your staff is a great resource for ideas and improvements. Asking for their opinions and solutions to problems, truly listening to them, and implementing them as appropriate, strengthens their commitment to you and to their job. Involving your staff in decision making builds loyalty and improves retention.

2. Set expectations. Clearly and consistently set expectations for each employee through jointly written performance objectives. Good performance can’t happen if they don’t understand what you expect. Reinforce your expectations verbally.

3. Provide continuous feedback. Praise accomplishments, large and small, and for those projects that weren’t as successful, use them as learning experiences to find out what could be improved differently. Don’t wait until the end of the year at performance time to express dissatisfaction.

4. Show appreciation. Just say “thank you!” When you reward and acknowledge good behavior, you get more of the same. Publicly acknowledge your staff for doing a good job, and look for other ways to reward their efforts. According to a Harris Poll, the top three satisfaction drivers for employees are control over their work; the opportunity to use their talents and skills; and recognition and appreciation.

5. Be accessible. By being visible and available, you send the message that you are part of the team and are ready to support their efforts to get the job done.

6. Train, Train, Train. Training in the correct procedures and equipment use is critical to getting the job done right, but also for health and safety reasons. The continuous upgrading of skills also provides employees with the means for promotion. Consider training opportunities in areas outside of their core responsibilities, such as in writing skills, public speaking, customer service, business management, etc. You and your facility will reap many benefits from improving their “softer” skills.

7. Empower your staff. Give them as much information as possible about what and why, and allow them to make decisions appropriate to their work.

8. Provide a safe and comfortable working environment. Don’t expect employees to use outdated or faulty equipment. With anxieties at an all time high regarding increased terrorist activity, make sure you have emergency procedures in place to protect the workforce in the event of an attack, and ensure that every employee is aware of these procedures.

9. Treat with respect. Respect and accept each person as an important member of the team.

10. Inspire your staff. Be a coach and a cheerleader. Be sure your boss knows about the good work they do. When you help them succeed, you succeed.

Your staff has a significant impact on your success. The work that they do is a direct reflection on you, your ability to train, to motivate and to lead. Reaching the goals of your facility is only possible through good management of your people and their continued development. To make sure you are fully embracing the talents of your staff, use these simple techniques.

**LOOKING FOR SUCCESS?**

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STMA Editorial Staff

*This article is compliments of Sports Turf Managers Association (STMA), Laurence, KS.*
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 ensure that his legacy lives on. The single family would like to establish a memorial fellowship to support graduate students interested in applied turfgrass science. This fellowship is being created to help ensure 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 $40,000. 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, 1 College Avenue, New Brunswick, NJ 08901, to: Henry Indyk Fellowship, Turfgrass Science. For information on other ways to support this fellowship, please contact Dr. Bruce B. Carter, Director – Rutgers Center for Turfgrass Science (732-932-5503, ext. 131; or dlh2@agsci.rutgers.edu) or John Pearson, Director of Leadership Gifts at the Foundation, by calling (732) 932-7500 or email: jpearson@greatruthers.org

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Gypsum (CaSO₄) is often applied but seldom needed on Iowa or New Jersey sports fields. The classic misunderstanding with gypsum arises from its association with improving water movement and soil structure on sodic (high sodium) soils that are not typically found in Iowa or New Jersey.

Gypsum is correctly used on sodic soils that have undergone a process of deflocculation. In this case, gypsum will likely improve soil structure and water infiltration. A brief review of soil cation exchange capacity (CEC) and soil aggregation may help you understand how this is actually accomplished by gypsum. There are many negatively (-) charged sites on the surface of clay particles. Some of the more important nutrients are positively charged (calcium Ca⁺⁺, magnesium Mg⁺⁺, iron Fe⁺⁺ and potassium K⁺) and attach themselves to the negatively charged soil particles. These positively charged nutrients are called cations. The CEC is simply a measure of how many negative sites are available to attract the positively charged nutrients or cations.

Soil aggregation is another term you will need to understand to follow this discussion. Small individual soil particles are clumped together to form aggregates or “soil crumbs.” Calcium - gypsum is a source of calcium - can cause this granulation to initiate in a process called flocculation, however flocculation alone does not make aggregates stable. Organic matter and other viscous microbial products stabilize soil aggregates. In a well aggregated soil there are larger voids between the “soil crumbs.” The larger voids or macro pores improve water infiltration.

Now, back to gypsum. The CEC sites in sodic soils are dominated by Na⁺. Other cations that help soil aggregation, such as Ca⁺⁺ and Mg⁺⁺, are displaced by Na⁺. The excessive sodium reverses the process of aggregation and causes the “soil crumbs” to disperse into individual soil particles. The deflocculation that occurs in sodic soils results in a very tight arrangement of individually dispersed soil particles saturated with Na⁺. Macroporosity is greatly reduced and water infiltration slows to near zero. When wet, sodic soils are slick, sticky, and have poor drainage. When dry they become quite hard. Gypsum is correctly used to remedy this situation caused by excessive sodium in the soil. The Ca⁺⁺ in gypsum (CaSO₄) displaces Na⁺ on the exchange site. The Na⁺ reacts with sulfate (SO₄²⁻) to form sodium sulfate (Na₂SO₄); a highly water soluble material that is leached from the soil. Removing Na⁺ and replacing Ca⁺⁺ on the exchange site reduces deflocculation and allows natural aggregation of particles that eventually restores soil structure. Gypsum is very useful when soil structure deteriorates because of high Na⁺.

The misconception arises when there is a belief that gypsum can improve structure and drainage in any heavy clay soil, even those not necessarily affected by Na⁺. A Na⁺ impact on soil structure that requires the application of gypsum only occurs on a small percentage of sports field soils. A soil test will determine the need for gypsum application. The problematic symptoms of sodic soils are very similar to those of heavily trafficked clay soils that are not affected by Na⁺; both are hard and have poor structure and drainage. To add confusion, gypsum is often advertised as a “soil softener” material. Most soil scientists agree that gypsum will not be useful for improving poor permeability due to problems of soil texture, compaction, hardpans, claypans, or high water tables. Most sports field managers should not anticipate a reduction in compaction and improved drainage by using gypsum. Even with this misconception, there are situations where gypsum is useful in sports fields.

Gypsum (CaSO₄) can be used to supply Ca⁺⁺. When pH is above 6.7 and Ca is deficient, gypsum instead of lime (CaCO₃) should be used to supply Ca. Lime applied to an already high pH would further increase pH and may lead to iron deficiency. Gypsum supplies Ca without increasing pH. A suggested target range for Ca in the plant is 0.4 to 1.2%.

Many water supplies are often high in Na⁺. Sand based systems irrigated with high Na⁺ water may have excessive Na⁺ on the exchange complex. Since sands do not deflocculate, the high Na⁺ in this case will not result in reduced drainage.

Sands retain their macroporosity through particle size arrangement rather than by aggregation of particles. The high Na⁺ irrigation water can easily displace Ca⁺⁺ and make it deficient in sandy soils with low CEC. Gypsum can be used in this case as a source of Ca⁺⁺. Testing both soil and plants associated with sand based sports turf has revealed that apparently adequate levels of Ca⁺⁺ in the rootzone have produced apparently deficient levels of Ca⁺⁺ in the plant. Application of gypsum in these situations increased plant calcium and improved turf growth (Dr. David York, personal communication 1998). Calcium availability, uptake, and effect on turfgrass performance in athletic fields continues to be evaluated.

Sodium Chloride (NaCl) is commonly used as a deicer for roadways and sidewalks. Soil Na levels may be elevated in grass areas adjacent to paved surfaces treated with NaCl for deicing. Gypsum may be helpful to remove excessive Na from the soil is this situation.

* Dr. David D. Minner is Extension Turfgrass Specialist, Iowa State University; and Board Member, Sports Turf Managers Association (STMA).

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One of the major items that must be considered when planning the construction of a sports field is the aftercare and day-to-day maintenance. The sports field facility manager must consider the amount of use, equipment and manpower needs, budget limits and levels of service to be provided. Often this leads to a considerable investment. Rather than hiring new employees and obtaining new or specialized equipment, some facilities have found it to be cost effective to outsource some or all of their grounds maintenance services.

Outsourcing grounds maintenance services gives the sports field manager certain advantages. The primary reason for outsourcing is that it saves money. It is far less expensive to hire an outside service provider to provide an infrequent task using specialized equipment than to own the equipment and have it unproductive most of the year. Another consideration is that any new equipment must be stored somewhere and possibly transported to the work site, adding additional overhead and capital expenses. Payroll is usually one of the largest line item expenses. By outsourcing certain recurring tasks (such as mowing), labor and benefits costs can be more effectively managed.

Outsourcing simplifies and streamlines the basic operations. It allows the sport field manager to delegate certain tasks to an outside service provider and concentrate on the management of his or her sports field facility, rather than become mired in details. By eliminating certain distractions, outsourcing allows the sports field manager time to concentrate on core activities. Outsourcing allows the sports field manager an opportunity to focus on performance and allows the operation more flexibility if change is needed.

Outsourcing is only the provision of a service that can be contracted for, not the outcome. The ultimate accountability will always rest with the management. But, service providers become partners, bringing a creative approach and technical expertise to the table. They also share some of the risk. Because outsourcing relationships are results oriented, management role is now "what" issues, not "how" issues.

Outsourcing does have its disadvantages. The sports field manager could lose control of the process or lose focus on the core business and focus instead on the outsourcing process, resulting in poor performance or quality. There is a possibility of creating poor morale within your organization as current employees view the shift to outsourcing as an insult or a threat, possibly resulting in the loss of valuable, talented people. Your service provider could go out of business, or become too busy with other work and dilutes your service.

If outsourcing seems like a viable option for your situation, here are some Tips for Success:

1. Consider your budget, costs and needs as well as the scope of the work to be outsourced.
2. Make a strategic business decision.
3. Write clear, comprehensive contract specifications.
4. Establish a fair payment schedule.
5. Create contract administration process and structure.
6. Determine the appropriate structure of the contract document.
7. Manage the transition to the outsourced arrangement.
8. Agree to contract termination arrangements.
9. Communicate, Communicate, Communicate

Remember that outsourcing is a tool that works well in many situations and poorly in others. Sports field managers must identify whatever operational approach will offer the most cost effective, highest quality service and best results in a manner that is consistent with their organization’s mission.

References
1 DeStefano, S. Contracting out Your Landscape Operations, Operational Guidelines for Grounds Management

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

DID YOU KNOW?

Winter annuals are plants that initiate growth in the fall, live over winter, and die after producing seed the following season.
Having been given the opportunity to travel throughout the Garden State and visit numerous sports fields over the last several years, this author has often encountered sports field managers who are either unaware of how much seed/fertilizer they are applying on a 1000 sq ft basis or believe they are applying a particular amount but in actuality are only applying a fraction.

The responsibility of fertilizer and seed applications are often left to a contractor. When asked how much seed/fertilizer was actually applied to a sports field, more often than not, the sports field manager is either unaware of the amount or he or she presents a scope of work developed by the contractor with no certainty as to what rates were actually made, let alone, whether any application was made at all.

One way of sifting through all of this confusion is to simply know how much area requires treatment and the number of bags of specific material required to treat that area. Using seed as an example, a typical overseeding recommendation for perennial ryegrass is 6.0 lbs seed per 1000 sq ft. To seed the area between the hash marks on a high school football field (approximately 16200 sq ft) at this rate, approximately 97 lbs of seed are required ([6.0 lbs x 16200 sq ft] / 1000 sq ft = 97.2 lbs). Seed is typically sod in 50.0-lb bags; therefore two (2) 50.0-lb bags of seed are required for order to complete this overseeding operation.

Applied fertilizer amounts can be calculated in a similar manner. Assume 0.75 lbs nitrogen (N) per 1000 sq ft specified to be applied to an entire football field and the material to be used has an analysis of 35-0-0. This fertilizer contains 35% N; 0% phosphate (P₂O₅); and 0% potash (K₂O). A football field (including endzones) is 57600 sq ft. To apply 0.75 lbs N per 1000 sq ft using a material that contains 35% N, 2.1 lbs of this fertilizer must be applied per 1000 sq ft ([0.75 lbs x 57600 sq ft]/1000 sq ft = 123 lbs). Fertilizer is typically sold in 50.0-lb bags; hence, three (3) 50.0-lb bags will be required for order and approximately two-and-one-half (2.5) bags will be required to treat the field at the 0.75 lbs N per 1000 sq ft rate.

One way of exercising oversight on contracted work is to request to see the number of fertilizer and/or seed bags used to treat a sports field. Knowing the specified application rate, the area to receive the application, and, in the case of fertilizer, either the specified analysis or the analysis utilized by the contractor, one can calculate the amount of material required.

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

**DID YOU KNOW?**

There are 566 municipalities in New Jersey - all of which are members of the New Jersey State League of Municipalities
these increases start in December, the effects are not really noticeable after December 22nd, "winter solstice". This is the shortest day of the year. This is the day with the least amount of daylight for the entire year. After December 22nd, "winter solstice". This is the shortest day of the year.

After the winter solstice, the sun's radiation increases and soon begins to achieve the greatest benefit both in the root development and lateral growth of the turf. This warming trend continues for the next six months on or so until the sun's radiation begins to decrease. The reverse then holds for the half-year summer to winter solstice. What does all this have to do with the use of turf blankets?

The turf course at Monmouth Park Racetrack has four movable rail positions (inside rail, 12.0-ft., 24.0-ft., and 36.0-ft.,) to manage different turf surfaces. These include:

1. Proper mowing management
2. Effective nutrient management through a site specific fertility program based on soil test results
3. Aeration a minimum of two to three times a year
4. Proper mowing management

Reference

Jim Hermann, CSFM*
President, Total Control Inc.; and Board Member, SFMANJ

DO YOUR ATHLETIC FIELDS NEED TURF BLANKETS?

Give your turf a jump-start in the early spring by installing turf blankets. Understanding the principles involved in soil temperature manipulation is a key component in getting the most benefit out of your turf blankets.

The basic concept behind utilization of turf blankets is to increase average soil temperatures beneath the blanket at an accelerated rate as compared to uncovered turf areas. This increase in soil temperature stimulates an earlier growth response in the turf.

Turf surfaces temperature respond closely to what could be called the temperature budget. If more heat is gained in the soil than is lost there is a net rise in temperature. If more heat is lost from the soil than is gained there is a net loss in temperature. There are two major recurring heat cycles that have the greatest effect on soil surface temperature: diurnal and annual. We are all very familiar with both of these cycles although many of us have not been formally introduced.

The diurnal cycle or period consists of the daytime warming and nighttime cooling of the soil throughout the year. This warming and cooling of the soil is stimulated by variations in radiation from the sun. The sun comes up during the day and it warms up. The sun goes down at night and it cools down.

The annual cycle or period is the result of seasonal changes in temperature due to seasonal variations in the sun's radiation. Basically, in our area there is an increase in radiation from the sun, which starts after December 22nd, "winter solstice". This is the shortest day of the year. This is the day with the least amount of daylight for the entire year. After the winter solstice, the sun's radiation increases and soon begins to provide enough energy for the soil surface. Although these increases start in December, the effects are not really noticeable until mid to late February. This is the time of year when daytime temperatures typically rise above freezing and nighttime temperatures fall below freezing. Turf blankets should be installed by this period in time until mid to late February. This is the time of year when daytime temperatures typically rise above freezing and nighttime temperatures fall below freezing.

Turf blankets should be installed by this period in time to achieve the greatest benefit both in the root development and lateral growth of the turf. This warming trend continues for the next six months on or so until the sun's radiation begins to decrease. The reverse then holds for the half-year summer to winter solstice. What does all this have to do with the use of turf blankets?

The function of a turf blanket is to allow for the increase in soil temperature due to the increase in the sun's radiation. This is accomplished while minimizing temperature losses caused by lower nighttime temperatures. In effect you are maximizing the positive temperature gains provided by the annual or yearly cycle and minimizing the temperature losses caused by the diurnal or daily cycle. The soil temperature increases and maintains relative warmth. This principle allows for earlier warming of the soil and therefore earlier turf growth response.

Based on results I have witnessed, you can gain two to three weeks of early turf development by using turf blankets in this manner.

I have a few warnings and considerations when utilizing turf blankets for early spring turf temperature stimulation:

1. Turf blankets may be applied anytime from November to March. I aerate, seed, fertilize, sometimes topdress and apply fungicide before putting down the blankets. To insure that the staks hold, use 4-6 inch nails with washers. You will have to go around once a month and pound them down as the ground heaves. Starting in February (once the snow is gone), check under your blankets at least once a week to ensure that the turf will not be strong enough to play on. For at least a week after removing the blankets but it is well worth waiting for.

2. When covering the turf in this manner you increase the risk of snow mold similar to the increased risk involved with prolonged snow cover. Turf maintained at a higher level of fertility such as that receiving late season fertilization is more susceptible to snow mold. A preventive fungicide application may be warranted. Preventive problems with snow mold should be considered when making this decision. If you have never had snow mold, a preventive fungicide application may not be justified.

3. Caution should be exercised when removing turf blankets in the spring. Blankets should be removed during the day to accomplish mowing and replaced at night until the threat of frost is passed, in an attempt to acclimate the turf to normal seasonal temperatures and minimize turf damage. Late frost on sensitive turf can burn the leaf tissue and counter act early gains in turf development. Although a minor setback, turf generally recovers from frost burn with little or no long lasting ill affects.

4. Be prepared to initiate your mowing program earlier than usual and as always follow the 1/3 rule, never to remove more than 1/3 the leaf at any one time.

5. Not every turf blanket is made the same. Do your homework. Some can be cut to your specifications. Some have brassmats for your rails while others sew their edges. They are made of different material. Check the warranties. Some do work better than others.

6. Last but not least, turf blankets are nothing more than a tool. When used in conjunction with an effective turf management program, turf blankets can enhance benefits realized from that program. That program should include but not be limited to:
   (a) Periodic soil testing
   (b) Effective nutrient management through a site specific fertility program based on soil test results
   (c) Aeration a minimum of two to three times a year
   (d) Proper mowing management

* Jim Hermann is a Certified Sports Field Manager (CSFM); President, Total Control Inc.; and Board Member, SFMANJ

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DID YOU KNOW?
The turf course at Monmouth Park Racetrack has four movable rail positions (inside rail, 12.0-ft., 24.0-ft., and 36.0-ft.) to manage turfgrass damage caused by thoroughbred racing.

November/December 2006

Sports Field Managers Association of New Jersey
10
11
DO YOUR ATHLETIC FIELDS NEED TURF BLANKETS?

Jim Hermann, CSFM*

Give your turf a jump-start in the early spring by installing turf blankets. Understanding the principles involved in soil temperature manipulation is a key component in getting the most benefit out of your turf blankets.

The basic concept behind utilization of turf blankets is to increase average soil temperatures beneath the blanket at an accelerated rate as compared to uncovered turf areas. This increase in soil temperature stimulates an earlier growth response in the turf.

Soil surface temperatures respond closely to what could be called the temperature budget. If more heat is gained in the soil than is lost there is a net rise in temperature. If more heat is lost from the soil than is gained there is a net loss in temperature. There are two major recurring heat cycles that have the greatest affect on soil surface temperature: diurnal and annual. We are all very familiar with both of these cycles although many of us have not been formally introduced.

The diurnal cycle or period consists of the daytime warming and nighttime cooling of the soil throughout the year. This warming and cooling of the soil is stimulated by variations in radiation from the sun. The sun comes up during the day and it warms up. The sun goes down at night and it cools down.

The annual cycle or period is the result of seasonal changes in temperature due to seasonal variations in the sun’s radiation. Basically, in our area there is an increase in radiation from the sun, which starts after December 22nd, “winter solstice”. This is the shortest day of the year. This is the day with the least amount of daylight for the entire year. After the winter solstice, the sun’s radiation increases and soon begins to provide enough energy to start to warm the soil surface. Although these increases start in December, the effects are not really noticeable until mid to late February. This is the time of year when daytime temperatures typically rise above freezing and nighttime temperatures fall below freezing. Turf blankets should be installed by this period in time to achieve the greatest benefit both in the root development and lateral growth of the turf. This warming trend continues for the next six months or so until the sun’s radiation begins to decrease. The reverse then holds for the half-year summer to winter solstice. What does all this have to do with the use of turf blankets?

The function of a turf blanket is to allow for the increase in soil temperature due to the increase in the sun’s radiation. This is accomplished while minimizing temperature losses caused by lower nighttime temperatures. In effect you are maximizing the positive temperature gains provided by the annual or yearly cycle and minimizing the temperature losses caused by the diurnal or daily cycle. The soil temperature increases and maintains relative warmth. This principle allows for earlier warming of the soil and therefore earlier turf growth response.

Based on results I have witnessed, you can gain two to three weeks of early turf development by using turf blankets in this manner. I have a few warnings and considerations when utilizing turf blankets for early spring turf stimulation:

1. Turf blankets may be applied anytime from November to March. I aerate, seed, fertilize, sometimes topdress and apply fungicide before putting down the blankets. To insure that the stakes hold, use 8-inch nails with washers. You will have to go around once a month and pound them down as the ground heaves. Starting in February (once the snow is gone), check under your blankets at least once a week. Note that the turf will not be strong enough to play on for at least a week after removing the blankets but it is well worth waiting for.

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3. Caution should be exercised when removing turf blankets in the spring. Blankets should be removed during the day to accomplish mowing and replaced at night until the threat of frost is passed, in an attempt to acclimate the turf to normal seasonal temperatures and minimize turf damage. Late frost on sensitive turf can burn the leaf tissue and counter act early gains in turf development. Although a minor setback, turf generally recovers from frost burn with little or no long lasting ill affects.

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Reference


* Jim Hermann is a Certified Sports Field Manager (CSFM); President, Total Control Inc.; and Board Member, SPFMFA
Seed and Fertilizer: How much was applied?

Brad Park*

Having been given the opportunity to travel throughout the Garden State and visit numerous sports fields over the last several years, this author has often encountered sports field managers who are either unaware of how much seed/fertilizer they are applying on a 1000 sq ft basis or believe they are applying a particular amount but in actuality are only applying a fraction.

The responsibility of fertilizer and seed applications are often left to a contractor. When asked how much seed/fertilizer was actually applied to a sports field, more often than not, the sports field manager is either unaware of the amount or he or she presents a scope of work developed the contractor with no certainty as to what rates were actually made, lot alone, whether any application was made at all.

One way of sifting through all of this confusion is to simply know how much area requires treatment and the number of bags of specific material required to treat that area. Using seed as an example, a typical overseeding recommendation for perennial ryegrass is 6.0 lbs seed per 1000 sq ft. To seed the area between the hash marks on a high school football field (approximately 16200 sq ft) at this rate, approximately 97 lbs of seed are required ([6.0 lbs x 16200 sq ft] / 1000 sq ft = 97.2 lbs). Seed is typically sod in 50.0-lb bags; therefore two (2) 50.0-lb bags of seed are required for order to complete this overseeding operation.

Applied fertilizer amounts can be calculated in a similar manner. Assume 0.75 lbs nitrogen (N) per 1000 sq ft specified to be applied to an entire football field and the material to be used has an analysis of 35-0-0. This fertilizer contains 35% N, 0% phosphate (P2O5), and 0% potash (K2O). A football field (including endzones) is 57600 sq ft. To apply 0.75 lb N per 1000 sq ft using a material that contains 35% N, 2.1 lbs of this fertilizer must be applied per 1000 sq ft (0.75 lbs N / 0.35 lbs N per 1.0 lb fertilizer = 2.1 lbs fertilizer). To treat the football field at the desired rate, 121 lbs of the 35-0-0 fertilizer must be applied to the field ([2.1 lbs x 57600 sq ft]/1000 sq ft = 123 lbs). Fertilizer is typically sold in 50.0-lb bags; hence, three (3) 50.0-lb bags will be required for order and approximately two-and-one-half (2.5) bags will be required to treat the field at the 0.75 lbs N per 1000 sq ft rate.

One way of exercising oversight on contracted work is to request to see the number of fertilizer and/or seed bags used to treat a sports field. Knowing the specified application rate, the area to receive the application, and, in the case of fertilizer, either the specified analysis or the analysis utilized by the contractor, one can calculate the amount of material required.

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

Shea Stadium is located at 123-01 Roosevelt Avenue, Flushing, NY and can be reached by the No. 7 NYC Subway train.

Shea Stadium: Did You Know?

There are 566 municipalities in New Jersey - all of which are members of the New Jersey State League of Municipalities.
One of the major items that must be considered when planning the construction of a sports field is the aftercare and day-to-day maintenance. The sports field facility manager must consider the amount of use, equipment and manpower needs, budget limits and levels of service to be provided. Often this leads to a considerable investment. Rather than hiring new employees and obtaining new or specialized equipment, some facilities have found it to be cost effective to outsource some or all of their grounds maintenance services.

Outsourcing grounds maintenance services gives the sports field manager certain advantages. The primary reason for outsourcing is that it saves money. It is far less expensive to hire an outside service provider to provide an infrequent task using specialized equipment than to own the equipment and have it unproductive most of the year. Another consideration is that any new equipment must be stored somewhere and possibly transported to the work site, adding additional overhead and capital expenses. Payroll is usually one of the largest line item expenses. By outsourcing certain recurring tasks (such as mowing), labor and benefits costs can be more effectively managed.

Outsourcing simplifies and streamlines the basic operations. It allows the sports field manager to delegate certain tasks to an outside service provider and concentrate on the management of his or her sports field facility, rather than become mired in details. By eliminating certain distractions, outsourcing allows the sports field manager time to concentrate on core activities.

Outsourcing allows the sports field manager an opportunity to focus on performance and allows the operation more flexibility if change is needed.

Outsourcing is only the provision of a service that can be contracted for, not the outcome. The ultimate accountability will always rest with the management. But, service providers become partners, bringing a creative approach and technical expertise to the table. They also share some of the risk. Because outsourcing relationships are results oriented, management role is now “what” issues, not “how” issues.

Outsourcing does have its disadvantages. The sports field manager could lose control of the process or lose focus on the core business and focus instead on the outsourcing process, resulting in poor performance or quality. There is a possibility of creating poor morale within your organization as current employees view the shift to outsourcing as an insult or a threat, possibly resulting in the loss of valuable, talented people. Your service provider could go out of business, or become too busy with other work and dilutes your service.

If outsourcing seems like a viable option for your situation, here are some Tips for Success:

1. Consider your budget, costs and needs as well as the scope of the work to be outsourced.
2. Make a strategic business decision.
3. Write clear, comprehensive contract specifications.
4. Establish a fair payment schedule.
5. Create contract administration process and structure.
6. Determine the appropriate structure of the contract document.
7. Manage the transition to the outsourced arrangement.
8. Agree to contract termination arrangements.
9. Communicate, Communicate, Communicate

Remember that outsourcing is a tool that works well in many situations and poorly in others. Sports field managers must identify whatever operational approach will offer the most cost effective, highest quality service and best results in a manner that is consistent with their organization’s mission.

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References
1. DeStefano, S. Contracting out Your Landscape Operations, Operational Guidelines for Grounds Management

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

DID YOU KNOW?

Winter annuals are plants that initiate growth in the fall, live over winter, and die after producing seed the following season.
Gypsum (CaSO₄) is often applied but seldom needed on Iowa or New Jersey sports fields. The classic misunderstanding with gypsum arises from its association with improving water movement and soil structure on sodic (high sodium) soils that are not typically found in Iowa or New Jersey.

Gypsum is correctly used on sodic soils that have undergone a process of deflocculation. In this case, gypsum will likely improve soil structure and water infiltration. A brief review of soil cation exchange capacity (CEC) and soil aggregation may help you understand how this is actually accomplished by gypsum. There are many negatively (-) charged sites on the surface of clay particles. Some of the more important nutrients are positively charged (calcium Ca⁺⁺, magnesium Mg⁺⁺, iron Fe³⁺, and potassium K⁺) and attach themselves to the negatively charged soil particles. These positively charged nutrients are called cations. The CEC is simply a measure of how many negative sites are available to attract the positively charged nutrients or cations.

Soil aggregation is another term you will need to understand to follow this discussion. Small individual soil particles are clumped together to form aggregates or “soil crumbs.” Calcium - gypsum is a source of calcium - can cause this granulation to initiate in a process called flocculation, however, flocculation alone does not make aggregates stable. Organic matter and other viscous microbial products stabilize soil aggregates. In a well aggregated soil there are larger voids between the “soil crumbs” to disperse into individual soil particles. The larger voids or macro pores improve water infiltration.

Now, back to gypsum. The CEC sites in sodic soils are dominated by Na+. Other cations that help soil aggregation, such as Ca⁺⁺ and Mg⁺⁺, are displaced by Na⁺. The excessive sodium reverses the process of aggregation and causes the “soil crumbs” to disperse into individual soil particles. The deflocculation that occurs in sodic soils results in a very tight arrangement of individually dispersed soil particles saturated with Na+. Macroporosity is greatly reduced and water infiltration slows to near zero. When wet, sodic soils are slick, sticky, and have poor drainage. When dry they become quite hard. Gypsum is correctly used to remedy this situation caused by excessive sodium in the soil. The Ca⁺⁺ in gypsum (CaSO₄) displaces Na⁺ on the exchange site. The Na⁺ reacts with sulfate (SO₄⁻⁻) to form sodium sulfate (Na₂SO₄); a highly water soluble material that is leached from the soil. Removing Na⁺ and replacing Ca⁺⁺ on the exchange site reduces deflocculation and allows natural aggregation of particles that eventually restores soil structure. Gypsum is very useful when soil structure deteriorates because of high Na⁺.

The misconception arises when there is a belief that gypsum can improve structure and drainage in any heavy clay soil, even those not necessarily affected by Na⁺. A Na⁺ impact on soil structure that requires the application of gypsum only occurs on a small percentage of sports field soils. A soil test will determine the need for gypsum application.

The problematic symptoms of sodic soils are very similar to those of heavily trafficked clay soils that are not affected by Na⁺; both are hard and have poor structure and drainage. To add confusion, gypsum is often advertised as a “soil softener” material. Most soil scientists agree that gypsum will not be useful for improving poor permeability due to problems of soil texture, compaction, hardpans, claypans, or high water tables. Most sports field managers should not anticipate a reduction in compaction and improved drainage by using gypsum. Even with this misconception, there are situations where gypsum is useful in sports fields.

Gypsum (CaSO₄) can be used to supply Ca. When pH is above 6.7 and Ca is deficient, gypsum instead of lime (CaCO₃), should be used to supply Ca. Lime applied to an already high pH would further increase pH and may lead to iron deficiency. Gypsum supplies Ca without increasing pH. A suggested target range for Ca in the plant is 0.4 to 1.2%. Many water supplies are often high in Na⁺. Sand based systems irrigated with high Na⁺ water may have excessive Na⁺ on the exchange complex. Since sands do not deflocculate, the high Na⁺ in this case will not result in reduced drainage. Sands retain their macroporosity through particle size arrangement rather than by aggregation of particles. The high Na⁺ irrigation water can easily displace Ca⁺⁺ and make it deficient in sandy soils with low CEC. Gypsum can be used in this case as a source of Ca⁺⁺. Testing both soil and plants associated with sand based sports turf has revealed that apparently adequate levels of Ca⁺⁺ in the rootzone have produced apparently deficient levels of Ca⁺⁺ in the plant. Application of gypsum in these situations increased plant calcium and improved turf growth (Dr. David York, personal communication 1998). Calcium availability, uptake, and effect on turfgrass performance in athletic fields continues to be evaluated.

Sodium Chloride (NaCl) is commonly used as a deicer for roadways and sidewalks. Soil Na levels may be elevated in grass areas adjacent to paved surfaces treated with NaCl for deicing. Gypsum may be helpful to remove excessive Na from the soil is this situation.

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**APP LYING GYPSUM - When Is It Really Needed?**

Dr. David D. Minner*

Applying Gypsum

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Install Confidence. Install Rain Bird.
1. Seek input and listen. Your staff is a great resource for ideas and improvements. Asking for their opinions and solutions to problems, truly listening to them, and implementing as appropriate, strengthens their commitment to you and to their job. Involving your staff in decision making builds loyalty and improves retention.

2. Set expectations. Clearly and consistently set expectations for each employee through jointly written performance objectives. Good performance can’t happen if they do not understand what you expect. Reinforce your expectations verbally.

3. Provide continuous feedback. Praise accomplishments, large and small, and for those projects that weren’t as successful, use them as learning experiences to find out what went wrong and what can be improved. By being visible and available, you send the message that you are part of the team and are ready to support their efforts to get the job done.

4. Show appreciation. Publicly acknowledge your staff for doing a good job, and let them know you are thankful for their efforts and resources, growth and expansion of the show is occurring, and the 40th Anniversary Celebration will be held at Expo.

5. Be accessible. By being visible and available, you send the message that you are part of the team and are ready to support their efforts to get the job done.

6. Train, Train, Train. Training in the correct procedures and equipment use is critical to getting the job done right, but also for health and safety reasons. The continuous upgrading of skills also provides employees with the means for promotion. Consider training opportunities in areas outside of their core responsibilities, such as in writing skills, public speaking, customer service, business management, etc. You and your facility will reap many benefits from improving their “softer” skills.

7. Empower your staff. Give them as much information as possible about what and why, and allow them to make decisions appropriate to their work.

8. Provide a safe and comfortable working environment. Don’t expect employees to use outdated or faulty equipment. With anxieties at an all-time high regarding increased terrorist activity, make sure you have emergency procedures in place to protect the workforce in the event of an attack, and ensure that every employee is aware of these procedures.

9. Treat with respect. Respect and accept each person as an important member of the team.

10. Inspire your staff. Be a coach and a cheerleader. Be sure your boss knows about the good work they do. When you help them succeed, you succeed.

*This article is compliments of Sports Turf Managers Association (STMA), Lawrence, KS.

LOOKING FOR SUCCESS?

Look no further than...YOUR STAFF!

STMA Editorial Staff

Your staff has a significant impact on your success. The work that they do is a direct reflection on you, your ability to train, to motivate and to lead. Reaching the goal of your facility is only possible through good management of your people and their continued development. To make sure you are fully embodying the talents of your staff, use these simple techniques.

New Jersey Turf & Landscape Conference and Expo 2006:
Sports Field Managers Program
December 5-7, 2006
Trump Taj Mahal Casino-Resort, Atlantic City, NJ

TUESDAY, DECEMBER 5, 2006
TUESDAY AM
9:00 Principles of sports field drainage
Dr. Jim Murphy, Rutgers Univ.
1:00 IPM procedures for turfgrass
Dr. George Hamilton, Rutgers Univ.
9:30 Effective pesticide applications with backpack sprayers
Dr. John Grande, Rutgers Univ.
1:30 IPM procedures for indoor facilities
Dr. George Hamilton, Rutgers Univ.
10:00 Cost comparisons between natural grass and synthetic infill fields
Dr. A.J. Powell, University of Kentucky
2:00 Break
10:45 A synthetic infill field: One year later
Joel Taylor, Haddonfield Twp, NJ
2:15 School IPM Q&A with the NJ DEP
Bruce Reinhold, New Jersey Dept. of Environmental Protection
11:15 Managing sports fields on native soils
Dr. A.J. Powell, University of Kentucky
2:45 Case study panel: Implementing a school IPM program
Moderator: Craig Tolgy, County College of Morris, NJ
Barry Imboden, Haddonfield Twp, NJ
Brad Park, Rutgers Univ.
Rick Watson, Pine Hill Schools, NJ
Barry Imboden, Hunterdon Central, NJ
George Van Haasteren, Dwight Englewood Schools, NJ
12:00 End of Session
4:00 End of Session

TUESDAY PM
2:30 Managing infield skin surfaces
Ryan Radcliffe, Lakewood Blueclaws
3:00 Insect management update for sports fields
Dr. Albrecht Kupperschlink, Rutgers

WEDNESDAY, DECEMBER 6, 2006
TUESDAY AM
6:30 Early Bird sports field managers networking roundtable
9:00 End of Session

WEDNESDAY PM
1:00 SPMNJ Business meeting
1:30 Identifying and controlling common turfgrass diseases of sports fields
John Buckley, Rutgers Univ.
2:00 Overview of the Certified Sports Field Manager (CSFM) program
Dor Sawaf, CSGP, Salisbury School
2:30 Managing infield skin surfaces
Ryan Radcliffe, Lakewood Blueclaws
3:00 Insect management update for sports fields
Dr. Albrecht Kupperschlink, Rutgers

WEDNESDAY, DECEMBER 7, 2006
TUESDAY AM
6:30 Early Bird sports field managers networking roundtable
9:00 End of Session

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1:00 SPMNJ Business meeting
1:30 Identifying and controlling common turfgrass diseases of sports fields
John Buckley, Rutgers Univ.
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Email: njturfgrass.org
Website: www.njturfgrass.org

Two prominent New Jersey Associations, the NJ Landscape Contractors Association (NJLCA) and the NJ Turfgrass Association (NITA), have signed an historical long-term agreement which will benefit green industry representatives across New Jersey and the region. The two associations have agreed on a joint venture to co-host the New Jersey Green Industry Expo. For over 35 years, NITA has run a very successful annual trade show and conference in early December. By joining efforts and resources, growth and expansion of the show is virtually guaranteed. “NITA is excited about the opportunity this partnership will offer and believes the Expo will develop into a regional conference and trade show attracting attendees from up and down the East Coast,” says Chris Carson, President of the New Jersey Turfgrass Association.

Beginning December 5-7 of this year the show will be renamed the “Turf & Landscape Conference and Expo”. It will remain at the Taj Mahal, Atlantic City. The conference has always had well attended educational seminars and will continue to expand on this success by adding seminars earmarked specifically for the landscape contractor.

“This joint venture will be the perfect vehicle for NILCA to further develop the southern regions of the state,” states Brian Pihedel, NILCA President. He also announced the first annual NILCA state convention, the Holiday Awards Dinner and the 40th Anniversary Celebration will be held at Expo.

“This partnership is exactly what the Expo needed to catapult it to new heights. We are certain it will benefit the entire Green Industry in New Jersey and we look forward to producing another first-rate Expo,” says Chris Carson, NITA President.
A total of two core credits and four Category 3B credits will be available to the Certified pesticide applicators in attendance during the sports field managers’ sessions. Offering applicators the recertification credits needed for their jobs is an important aspect of Expo.

Because synthetic surfaces are becoming a greater part of the sports field landscape, Expo has again been designed to address the issue of synthetics. Dr. A.J. Powell, University of Kentucky, will be speaking on cost comparison between natural and synthetic fields. Joel Taylor, Haddonfield Twp., will follow by describing his experiences with a synthetic infill system one year after installation. These synthetic talks are scheduled for Tuesday, December 5 as part of a session beginning at 9:00 am.

Expo 2006 will also feature an Early Bird Sports Field Managers Networking Roundtable. Based on its success in 2005, a similar Roundtable will be held on Wednesday, December 6 at 7:30 am. All are welcome and encouraged to attend.

A hallmark of the annual Expo is the trade show. The trade show grand opening will be at 3:30 pm on Wednesday, December 6 with free food and beverages to be served. The partnership between NJTA and NJLCA will have the effect of bringing many new vendors to Expo 2006. The trade show is also scheduled for Thursday, December 7 from 10:00 am – 2:00 pm. Lunch will be served on the trade show floor.

Registration for Expo 2006 is easy! Registration can be done online by visiting www.njturfgrass.org or printable mail-in registration forms can be accessed on this site. Additional information can be obtained by calling 215-757-6582. See you in Atlantic City!

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

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NJ Turf & Landscape Conference and Expo 2006
December 5-7, 2006
Trump Taj Mahal Casino-Resort
Atlantic City, NJ
(215) 757-6582
Expo 2006 will feature online registration at: www.njturfgrass.org

18th Annual Sports Turf Managers Association Conference and Exhibition
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Calendar of Events
YEAR IN REVIEW 2006

Dr. John Grande, Director, Rutgers Snyder Research and Extension Farm, Pittstown, NJ describes methods used to calibrate rotary and drop spreaders used to apply granular fertilizers and pesticides at the SFMANJ Summer Field Day held at the County College of Morris, Randolph, NJ on June 28, 2006.

Field Day attendees were given the opportunity to build a pitchers’ mound as part of the SFMANJ Spring Field Day 2006 held at Shore Regional High School, West Long Branch, NJ on April 13, 2006.

Big roll sod is lined-up to be installed on a racing chute at Monmouth Park, Oceanport, NJ. The turf course at Monmouth Park racetrack was the site of the afternoon sessions of the Spring Field Day, April 13, 2006.

Brad Park demonstrates the use of the Clegg Impact Soil Tester to Don Savard, CSFM, CGM, and other attendees at the SFMANJ District 1 meeting held at Harrington Park, Long Valley, NJ on May 4, 2006.

Welcome New & Renewed SFMANJ Members

Currently we have 323 new & renewed members. SFMANJ will be mailing invoices shortly for 2007 membership dues to all current members. Please remember to mail your renewal/payment direct to:
SFMANJ, PO Box 370, Annandale, NJ 08801.

Joe Murray - Murray Hydroseeding, LLC
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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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National Organization
Sports Turf Managers Association
www.sportsturfmanager.org
Email: stmainfo@sportsturfmanager.org
Phone: 800-323-3875

SFMANJ Annual Membership Registration Form
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Inside This Issue
Welcome New & Renewed Members 3
Membership Form 3
SFMANJ Board of Directors 3
Expo 2006: New Jersey Turfgrass Industry Unites in an Historical Joint Venture 5
New Jersey Turf & Landscape Conference and Expo 2006: Sports Field Managers Program 5
Outsourcing Grounds Maintenance Services 8
Rutgers Corner - Seed and Fertilizer How much was applied? 9
2006 Proud Sponsor Directory 10
Do Your Athletic Fields Need Turf Blankets? 10
Applying Gypsum - When it is Really Needed 11
Looking for Success? Look no Further...Your Staff 14
Calendar of Events 16
Year in Review 18

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

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The Field of the Year for 2006 will be awarded at SFMANJ’s Annual Business Meeting as part of Expo 2006 on Wednesday, December 6 at 1:00 pm. Terrier Field (see above) at Delaware Valley Regional High School, Frenchtown, NJ was awarded the Field of the Year in 2005.

The New Jersey School IPM Law has been a source of confusion for many sports field managers responsible for school grounds in the Garden State. Expo 2006 has dedicated an entire afternoon session towards helping practitioners understand and conform to this law. The session will be held as part of the New Jersey Turf and Landscape Conference and Expo 2006 at the Trump Taj Mahal in Atlantic City. See inside for a complete schedule.

The 31st Annual New Jersey Turf and Landscape Conference and Expo will be held December 5-7, 2006 at the Trump Taj Mahal in Atlantic City, NJ. Expo 2006 is proudly presented by New Jersey Turfgrass Association and New Jersey Landscape Contractors Association. Cooperating organizations include Golf Course Superintendents Association of New Jersey, Sports Field Managers Association of New Jersey, and Rutgers University.

The Expo 2006 sports field managers program will feature a School IPM session on Tuesday afternoon, December 5, from 1:00-4:00 pm. The concept for this session began at last year’s Expo following a talk on the NJSchool IPM law. Numerous questions were raised and confusion and aggravation were the overwhelming tone of the discussion. Recognizing the need to bring clarification to this controversial subject, an entire afternoon has been devoted to School IPM. The IPM session will begin with talks describing how to implement conventional turfgrass and indoor IPM practices. A representative from the New Jersey Department of Environmental Protection will follow and will be taking questions on the current School IPM law. Lastly, a panel consisting of New Jersey sports field managers will provide insight as to how they notify school faculty and staff, students, and parents prior to making pesticide applications on the school properties for which they are responsible and conform to the current law.

continuing on page 4