WELCOME NEW & RENEWED SFMANJ MEMBERS

Currently we have 295 new & renewed members. In November 2006, SFMANJ mailed invoices for 2007 membership dues to all current members. If you did not receive an invoice, please contact us at 908-730-7770 or download the 2007 membership form available at www.sfmanj.org. Remember to mail your renewal/payment direct to SFMANJ, PO Box 370, Annandale, NJ 08801.

Erickson, Robert	**Bordentown, City of**
Geier, Scott	**Hawthorne Borough DPW**
Kelsey, James C.	**Partac Peat Corp./ Beam Clay**
Lawson, TJ	**Rutgers University, Dept. of Plant Bio/Pathology**
Maher, Mal	**Turf Sewing Machinery.Com**
Meisner, Janet	**Byram Township**
Ravaschiere, Frank	**Long Branch, City of**
Sheeran, Jerry	**Metuchen Public Schools**
Steyh, Adolf	**Byram Township**

SFMANJ Annual Membership Registration Form

***receive update information by email**

Name_____

Title_____

Employer_____

Address_____

City_____

State _____ Zip_____

County_____

Phone_____ Fax _____

*E-mail_____

Signature _____

Individual $50

Associate.....$50

Organization/Institution.....$50

Additional member from facility $30

Commercial/Contractor/Vendor/Supplier.....$105

Additional member from company.....$35

Student.....$15

Send with Check or voucher to:

SFMANJ

P.O. 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:
PO Box 370 • Annandale, NJ 08801
Web site: www.sfmanj.org
Email: hq@sfmanj.org
Ph/fax: 908-730-7770

National Organization
Sports Turf Managers Association

www.stma.org
Email: stmainfo@sportsturfmanager.org
Phone: 800-323-3875

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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

Synthetic Infill Field Maintenance Demonstration Field Day to be Held in South Jersey

Don Savard, CSFM, CGM

Sports Field Managers Association of New Jersey's District 4 will present a Synthetic Infill Field Maintenance Demonstration Field Day field day at the Reccino Field Complex in Haddon Township, New Jersey on Wednesday, September 19, 2007.

Thinking of installing a new synthetic infill sports field system? Joel Taylor, Head Groundskeeper will host a tour of his facility and show how he found creative solutions to the unique problems of synthetic field care.

1. See for yourself how these field systems are cleaned, groomed and maintained.
2. Learn how to avoid costly mistakes when planning and building your field.
3. See a demonstration of synthetic field maintenance equipment.
4. Meet other grounds keepers who maintain synthetic fields and hear what they have to say.

THIS IS NOT AN INFOMERCIAL FOR A PARTICULAR BRAND OF SYNTHETIC INFILL SPORTS FIELD!

This field day is open to all sports field managers whether you have or are just thinking about getting into the new synthetic infill sports field systems. We especially welcome administrators, facility directors and decision makers to see first hand what synthetic field maintenance is all about.

Date: Wednesday, September 19, 2007

Time: 9:00 AM to 1:30 PM

Cost: $20 per person - **LUNCH IS INCLUDED**

For more information call the SFMANJ Chapter @ (908) 730-7770 or visit our website: www.sfmanj.org

Don Savard is a Certified Sports Field Manager (CSFM); Certified Grounds Manager (CGM); Director, Athletic Facilities and Grounds, Salesianum School; and a member of the SFMANJ Board of Directors

SPORTS FIELD IRRIGATION AUDITS - PART 1

Don Savard, CSFM, CGM

Prior to the summer of 2006, I managed the irrigation on my sports fields simply by direct observation. I looked at the condition of the turf, and if it looked dry, I would set up a hose and sprinkler and let it run for a reasonable amount of time. Sometimes I would catch water in a can so that I could measure how much I was putting down. During periods of heat or drought, I would run around like a nut moving hoses and sprinklers to irrigate areas that appeared to be under stress. Many an evening, weekend and holiday was spent attempting to keep my turf green.

Since then, two things have changed. First, I read an article in Sports Turf Magazine by Dr. Dave Minner (Iowa State University) suggesting that my method of irrigation was not efficient. The article went on to say that deeper and denser root systems and better stress tolerance were a result of heavier, less frequent irrigation. Second, at the 2006 STMA Conference in Orlando, I attended an Irrigation Audit Workshop held at the Disney Wide World of Sports Complex. From the workshop, I learned that the irrigation audit was a turf management tool that would help me grow healthier turf, conserve water, and save money. From actually doing it, I learned that it would also save time, *my time*!

An irrigation audit will help you discover how frequently and how long to irrigate. It considers the needs of the turfgrass plant; for example, the depth of the root system helps to determine how much water the turf needs. It helps to determine how well your irrigation equipment or system works. Aside from looking for leaks and other inefficiencies it helps you find out much water is coming out of the sprinkler head in a minute and how uniformly it is distributed over the soil. It will also tell you how the soil and water interacts *on your site!* By performing an irrigation audit you will discover what your soil texture is, how much water the soil can hold and the rate that water moves downward or percolates through the soil profile. You will even learn how the rate of evaporation and transpiration changes during different months.

One Saturday, last May, 2006, the weatherman predicted a warm, sunny day with no wind, a perfect day for an audit! If I got wet, I would not freeze, also no wind meant more precise measurements. I wanted to determine once and for all how much water I was putting down and how frequently I needed to irrigate.

An irrigation audit requires only some time and some very low tech tools (tape measure, catch-can devices, metric graduated cylinder, stopwatch, calculator, notebook and pencil). The audit can be performed with both in-ground and portable above-ground systems. The audit is sequential, meaning that each step provides information necessary for the next step.

The test requires data collection from the field as well as information found on the internet, books and even from the irrigation systems manufacturer. In the field, you will need to **measure the test area** where you will operate the sprinkler. This could be the irrigation zone for an in-ground system or it could be the area that a portable sprinkler would cover. Next, you place catch-can devices in an equally spaced pattern where you will **collect the precipitation** from the sprinkler. The catch-can devices can be store bought or they can be like mine, simply a paper cup taped to stake to hold them upright. Just make sure that all of the catch cans are uniform. Run water through the irrigation system for a predetermined amount of time and **measure and record** the amount of water collected in each catch-can.

You will need to find out the volume of water coming out of your sprinklers in gallons per minute. This can be determined with a flow metering device, or manufacturer's technical data for the system. This information will help you find gross and net precipitation. **Gross precipitation** is the water that sprays out of the sprinkler nozzle.

$$\text{Gross Precipitation Rate in inches per hour} = \frac{\text{96.3 gallons per minute from sprinkler nozzle}}{\text{area being irrigated in square feet}}$$

(96.3 is mathematical constant used as a multiplier)

Net precipitation is the amount of water collected in the catch cans. Find the area of the catch-can opening by measuring the area of the circle that is the opening (Area = πr^2).

$$\text{Net Precipitation Rate} = \frac{\text{Average catch volume in millimeters x 3.66}}{\text{Test run time in minutes x (Catch device area sq. inches) (16.5)}}$$

(3.66 And 16.5 are mathematical constants used as multipliers)

Net precipitation is compared with the gross precipitation to observe water loss as well as to measure the **irrigation application efficiency**.

$$\text{Irrigation application efficiency} = \frac{\text{gross precipitation rate}}{\text{net precipitation rate}}$$

After measuring the amount of water in each catch can, I was able to determine **uniformity of distribution** of the sprinklers. This will show how well the sprinklers distributed the water evenly over the test area.

$$\text{Lower quarter distribution uniformity} = \frac{\text{average of the lower quarter of 25\% of the devices in millimeters}}{\text{average of all catch - can devices}} \times 100$$

Don Savard is a Certified Sports Field Manager (CSFM); Certified Grounds Manager (CGM); Director, Athletic Facilities and Grounds, Salesianum School; and member of the SFMANJ Board of Directors

TURF RENOVATION

By Craig Tolley

Renovation can be defined as turf improvement that involves partial or complete replanting without total tillage of the soil. Complete renovation is when the entire turf stand is killed and reseeded. Partial renovation is called for when only a portion of the total area is to be killed off. Renovation of a turf should be considered when the condition turf stand is: severely damaged by pests, predominately covered by weeds (broadleaf or grassy), of a poor quality turf due to excessive thatch or compaction, or if a combination of these conditions exist.

Prior to taking any direct action the site needs to be evaluated to determine how severe and extensive the damage is and to identify the underlying cause of the damage. The evaluation should include identification of the dominate turf species and current density. All weed species should be identified (the weeds can be strong indicators of underlining problems). Additionally the thatch layer, drainage patterns and soil conditions should be checked. Soil should be tested for pH, nutrient levels and compaction. When the root cause of the decline in turf quality can be identified, a long term plan to alleviate the damage and prevent it from reoccurring should be developed and implemented.

Selecting an appropriate species for the site and use of the turf is the most important step in this process. On most athletic fields in New Jersey, the following species are desirable: Kentucky bluegrass, tall fescue, and perennial ryegrass. Kentucky bluegrass and tall fescue tend to be the more durable species; but when time is limited, perennial ryegrass is the fastest to germinate. For these species, the end of August into early September is the best time of year for establishment.

The area should be treated for weeds prior to seeding; preferably with an herbicide that will have short residual life such as glyphosate. Depending on the weeds present, more selective herbicides may used or applications limited to spot treatments. In this situation one needs to be very careful in the selection of an herbicide since the desirable seedlings will have an increased sensitivity to the chemicals remaining in the soil.

Soil compaction should be alleviated with aggressive hollow tine aerification - at least two to three passes over the area being treated. If thatch is a problem the field should also be dethatched at this time (the slicer can also help break up the cores from aerating if it is done second). This process will help exposure the soil and allow for good seed to soil contact.

The last cut prior to over-seeding should be at reduced height to lower the canopy and allow more light to reach the soil for the germinating seeds. The seeding is best performed with a disc-type seeder to get the seeds directly in contact with soil and through the canopy as opposed to a broadcast spreader that may leave the seeds exposed on the surface or in the canopy of the existing grass. The seeding rate will need to be higher than as compared to seeding over bare soil (by roughly 20 percent) due to increased competition from the standing turf. A thin layer of topdressing can be applied over the top of the seeds to aide at incorporating them into the soil.

The new seeds will need to be irrigated with frequent light applications until they have started to become established. Any fertilizer applications should be based on need as determined from the soil test.

When time is extremely limited one can either prime or pre-germinate the seed for a quicker establishment. Priming the seed is pre-imbibing it with water so when the seed comes in contact with the soil, it is ready to germinate. To do this, place the seed in a burlap bag than soak in a large container of lukewarm water (aerating with a fish tank bubbler helps but is not completely necessary) for about 24 hours than drain and air dry so it can be spread. Pre-germinating is taking this idea a step farther; the seed can be placed on damp paper in a warm location (70-75^0 F) until roots can be seen emerging form the seed. With the pergerminated seed the plants are already growing when they first contact the soil. The drawback to either of these 'tricks' is that the seed will be more susceptible to mechanical damage or fungi as you prepare it, so it is best to sow the seed/seedlings by hand (making this not practical for large areas) to minimize the physical damage.

Craig Tolley is Professor, County College of Morris; and President, SFMANJ

Dr. Henry W. Indyk Graduate Fellowship in Turfgrass Science

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

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

For information on other ways to support this fellowship, please contact Dr. Bruce B. Clarke, Director – Rutgers Center for Turfgrass Science (732-932-9400, ext. 331; or clarke@aesop.rutgers.edu) or John Pearson, Director of Leadership Gifts at the Foundation, by calling (732) 932-7699 or email. pearson@winants.rutgers.edu

Sports Turf Quote:

"...I remember when I came here (St. Louis' Busch Stadium) once in '94, the turf was scorching. We had to take our spikes off and put our feet on top of them to keep them from burning."

- Pittsburgh Pitchers' pitcher Rick White on the synthetic surface at Busch Stadium (Pittsburgh Post-Gazette: July 25, 2005)

2007 Calendar of Events

Rutgers Golf and Fine Turf Field Day
July 31, 2007
Rutgers Hort. Farm II
North Brunswick, NJ
www.njturfgrass.org

Rutgers Lawn, Landscape, and Sports Turf Field Day
SFMANJ Equipment Demos back for 2007
August 1, 2007
Rutgers Adelphia Research Farm
Freehold, NJ
908-730-7770
www.sfmanj.org
www.njturfgrass.org

SFMANJ District 4 Synthetic Infill Maintenance Demonstration Day
September 19, 2007
Reccino Field Complex
Haddon Township, NJ
(908) 730-7770
www.sfmanj.org

New Jersey State League of Municipalities 92nd Annual Conference
November 13-16, 2007
Atlantic City Convention Center
Atlantic City, NJ
www.njslom.org

NJ Turf & Landscape Conference and Expo 2007
December 4-6, 2007
Trump Taj Mahal Casino-Resort
Atlantic City, NJ
www.njturfgrass.org

Sports Turf Managers Association 2008 Conference
January 15-19, 2008
Phoenix, AZ
www.stma.org

Turfgrass education and New Jersey DEP Pesticide credits will be available to those attendees at the 2007 Rutgers Lawn, Landscape, and Sports Turf Research Field Day on Wednesday, August 1, 2007 at Adelphia.

An SFMANJ-sponsored tradeshow will be part of the program at the 2007 Rutgers Lawn, Landscape, and Sports Turf Research Field Day on Wednesday, August 1, 2007 at Adelphia.