By Jim Hermann, CSFM

Sports Field Managers Association of New Jersey (SFMANJ), in cooperation with Rutgers University, and New Jersey Turfgrass Association (NJTA) is sponsoring a Summer Tradeshow / Outdoor Demo Day. Our tradeshow will be held in conjunction with the Rutgers Lawn, Landscape, Sports Turf Research Field Day at the Rutgers Adelphia Research Farm in Adelphia New Jersey on Wednesday, August 1, 2007.

The tradeshow will highlight product suppliers from all across New Jersey and beyond. If it is available in the marketplace you will have the opportunity to view it first hand. Attendees will not only have the opportunity to inspect products, but also view those products selected for demonstration under actual working conditions. The field day is the only tradeshow in New Jersey which also offers outdoor equipment demonstrations.

Our tradeshow is built around the Rutgers Lawn, Landscape, and Sports Turf Research Field Day. During the walking tour, attendees will have the opportunity to view firsthand, major advances in turfgrass breeding. See tomorrow’s cultivars today.

Dr. Steve Hart will be on hand to provide useful information on new herbicides available for athletic field and landscape turf. New product lineups are sure to help improve current weed control strategies and effectiveness on your facilities.

Dr. Albrecht Koppenhofer will discuss identification and control of major insect pests. This information is critical to managing quality sports turf.

Dr. Bruce Clarke will discuss the latest strategies for disease control on sports and landscape turf.

So, don’t miss out on a day of equipment demonstrations, new product reviews, informative discussion and always, good food and hospitality.

Pesticide recertification credits will be offered.

Jim Hermann, CSFM is a Certified Sports Field Manager; President, Total Control, Inc.; and a member of the SFMANJ Board of Directors.

The schedule for August 1 is as follows:
7:30 am Registration and Trade Show Opening
8:45 am Welcome
9:00 am Research Tours
11:00 am Lunch and trade show
12:00 pm SFMANJ Equipment Demonstrations
2:00 pm Research Tours
3:00 pm Conclusion – pesticide credits

For more information log on to www.sfmanj.org or www.njturfgrass.org.

Mowing equipment from various manufacturers will be on-display and demonstrated during the SFMANJ sponsored tradeshow and equipment demonstrations at the 2007 Rutgers Lawn, Landscape, and Sports Turf Research Field Day at Adelphia.

Deep tine cultivation equipment has been demonstrated at previous SFMANJ-sponsored events. Don’t miss Wednesday, August 1, 2007 at Adelphia, NJ.
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SFMANJ-sponsored Field Days are a great opportunity to examine the latest equipment offerings from local distributors prior to making a purchasing decision.

Dr. Jim Murphy (holding soil plug), Rutgers University and SFMANJ Advisor, annually participates in Rutgers Turfgrass Research Field Days by delivering practical turfgrass education.
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 Recino 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

SFMANJ members are encouraged to attend the Rutgers Lawn, Landscape, and Sports Turf Research Field Day on Wednesday, August 1, 2007 at the Rutgers Adelphi Research Farm in Adelphi, NJ. SFMANJ will be sponsoring equipment demonstrations.

Calibration and operation of backpack sprayers is a common tour stop during Rutgers’ Summer Field Days.

Deep tine cultivation equipment has been demonstrated at past SFMANJ-sponsored equipment field days.

Killin’ weeds and takin’ names. Dr. Steve Hart, Rutgers University, explains his latest herbicide efficacy work at a past Rutgers Lawn, Landscape, and Sports Turf Research Field Day at Adelphia.
SFMANJ Field of the Year Contest 2007

Sports Field Managers Association of New Jersey is announcing its annual Field of the Year (FOY) contest.

ELIGIBILITY:
- Must be a current member of SFMANJ
- Only school and recreational fields are eligible
- Must be a new or recently refurbished field

CRITERIA:
- Award will be presented based on:
  - Playability and appearance of the playing surfaces
  - Infill materials
  - Describe your maintenance program and what you did to improve your field

SUBMITTING YOUR ENTRY:
- Entries are to be submitted by mail and must be postmarked by September 30, 2007. Entries are limited to 10 color photos. Please include the name, location, and owner of the facility, along with your name, position, and contact number.

AWARDS:
- Winners will be honored with a plaque at the New Jersey Turfgrass Association Conference A.B.A. Day in December 2007 and will be featured in an article in SFMANJ Emerald magazine.
- One winner will receive a two-night stay at the Trump Taj Mahal, Atlantic City, and three days of education and trade show admission at 2008 ENSP.

NOTE:
- Photos will not be returned and may be used on SFMANJ website and promotional settings.

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write Dan Daly, Park Maintenance Supervisor,
Parks & Rec. Dept., North Smithfield, RI

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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 watering. Second, at the 2006 STMA Conference in Orlando, I attended an Irrigation Audit Workshop held at the Disney 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.

An irrigation audit will help you discover how frequently and how much you are putting down and how frequently you needed to irrigate.

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.

The audit is sequential, meaning that each step provides information necessary for the next step. 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 how 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 be stored 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.

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.

To determine uniformity of distribution (61.0 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 inner diameter of the cylinder, the height of the cylinder and calculate the area (Area = 3.14 r^2).

Net Precipitation Rate = net precipitation in millimeters · (Area = m^2).

Average catch volume in millimeters = 1.56

Net Precipitation Rate = Test run time in minutes · (Catch device area sq. inches) · (16.5) · (6.3 is mathematical constant used as a multiplier)

Gross Precipitation Rate in inches per hour = area being irrigated in square feet · (Precipitation device area in square feet) · (gallons per minute) · (96.3 is mathematical constant used as a multiplier)

Average catch volume in millimeters = 1.56

Net Precipitation Rate = Test run time in minutes · (Catch device area sq. inches) · (16.5) · (6.3 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 inner diameter of the cylinder, the height of the cylinder and calculate the area (Area = 3.14 r^2).
As grounds managers, we often receive requests for special projects. When our township governing body requested we plan, construct, and maintain a “dog park” (off-leash area for dogs), I realized there were many new challenges—not the least was care of the turf.

When I announced the project to my staff, most, if not all, were concerned with the impact of pet waste on staff and equipment. Shortly after the opening of the park we realized that the pet waste was the least of our maintenance problems. Long-term care of the park’s turf was our major battle.

Here are some suggestions you may want to consider before installing a dog park:

**FACILITY DESIGN AND CONSTRUCTION**

1. Visit other existing sites to determine impact on your maintenance program. Don’t reinvent the wheel if you don’t need to. You can see what is best for you by reviewing what works and doesn’t work for other dog parks. Our facility was a one-acre site.
2. Choose better quality fencing materials to provide a safe environment for dogs and to reduce maintenance. Use largest wire core and thickest fabric coating, install a bottom tension wire and use heavier grade posts and rails.
3. Install a double-gated user entrance where owners can unleash their pets.
4. Plan an equipment service gate of sufficient size for your turf equipment.
5. If a water source is available, install a freeze-proof hydrant convenient to the facility.
6. Do not plant trees or shrubs—they won’t survive!
7. Other things to consider: sitting benches, bulletin board, shade canopy, port-a-johns.

**PET WASTE CONTROL**

8. Post user rules and pet waste regulations at several locations.
9. Install several self-serve pet waste clean-up mitten dispensers with covered and lined waste cans along the inner perimeter.
10. Solicit park users to help enforce self clean-up by owners. This provided excellent results for our facility. Additional enforcement by park rangers if available. This includes pet license enforcement, control of aggressive animals, etc.

**TURF MAINTENANCE**

11. Locate the facility in a well-drained area.
12. Our facility consisted of primarily K-31 fescue—the tall fescues provide the best wear tolerance.
13. Soil compaction, both the four-legged and two-legged kind, was the biggest problem, not pet waste. Aerate several times per season to help maintain a viable turf.
14. Raise cutting height to 3” – 3 ½”.
15. Conduct soil tests to determine soil phosphorus (P), potassium (K), magnesium (Mg), calcium (Ca) and liming needs. Apply slow-release nitrogen (N) sources to provide 3-5 lbs Nitrogen per year.
16. Remove all sod at the entrance gate and replace with #10 cinders compacted over ¾” clean gravel—the turf will never survive here.
17. Use a nonselective herbicide containing glyphosate (e.g., Roundup) beneath the fence line. Keep the park closed during application until herbicide has dried.

For more information go to www.dogpark.com.

Jeff Cramer is a Certified Public Works Manager, Director of Public Works, Howell Township, NJ; and a member of the SFMANJ Board of Directors.
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 of the 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 underlying 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.

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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 the soil and allow the seeds to be incorporated 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 further; the seed can be placed on damp paper in a warm location (70-75°F) until roots can be seen emerging form the seed. With the pre-germinated 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

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By Craig Tolley

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As many of you know, the Turfgrass Industry has a close tie with the University of Missouri in Columbia. In September 2006, we will honor Dr. Henry Indyk, our former student and colleague, in his retirement from the University of Missouri. The Foundation is creating this new fellowship to honor and extend his contributions to the Turfgrass Industry.

To make a tax deductible contribution today, please send a check payable to the Turfgrass University Foundation, c/o John Parkinson, Director of Development, 120 University Drive, New Brunswick, N.J. 08901.

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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)
Laser grading is a term in the athletic field construction industry used to describe the process of moving soil with a grading mechanism equipped with an automated control. Laser guided controls can be mounted on any machinery including track hoes, trenchers, motor graders, bulldozers, tractors and infield groomers. In fact, anything with a motor and hydraulic supply can be mounted with an automated laser control system. There is also a mast that holds the laser receiver which receives the signal from the sloped laser and sends it to a control box. The control box sends the signal back into an electronic hydraulic valve that controls the box blade that is grading.

The signal is instant and in real time. As the tractor moves across the field, the box is making cuts and hills leveling soil giving you the safest playing surface and best drainage. In addition to the tow-type box blade, there are also 3-point hitch versions of the laser guided systems available. Unfortunately, they are more sensitive to the tractor movement. For instance, the front wheel going into a hole and moves the box blade faster than the system can respond requiring the operator to have more responsibility on the finished surface.

The field is laser graded. All the soil is in-place and you balanced the drainage, usability, safety, and overall appearance of a sports field.

One of the biggest myths about laser grading is that some fields cannot be laser graded because of the elevations of land or fences that directly encase the field. This is usually untrue. A field can often be laser graded without moving the surrounding topography. In order to do this, you must do the following procedure.

First, grid the field on 40' or 50' centers, then shoot all grades and record on a scale drawing. (Note: most fields have some type of original blueprint so that scale drawings can be made very easily by tracing). After you have a drawing with grades shot, you can evaluate which way the water is going. After determining where the water can drain the most efficiently, you will then determine how much slope you will laser grade. One tenth of an inch in 10 linear feet is 1% of slope, so 1' of fall in 100 linear feet equals 1% slope.

After compiling your information, you need to measure the length of slope to determine your slope %. For example, if you have 4' of fall over 200 linear feet, you automatically know that is 2% of slope (4/200=0.02). Now you can determine if there are any problems between the points such as a big mound of soil which is holding the water back from draining or a big dip that is holding water. This process identifies problems and helps you determine how much to remove. The automated laser guarantees the 2 points (from high to low) will have continual slope with no holes or high spots to get through. The lowest point is your benchmark so you know you will get positive drainage.

Now that you have a plan, you need to make sure have the right type of equipment to complete the job. For instance, laser grading needs are 1" to 2" that means 1" to 2" is all the soil you will be able to move with a laser box in a reasonable amount of time. So, given that information, you know have to make other arrangements to move larger quantities of soil. A farm tractor equipped with a box blade with ripper teeth can loosen the soil from 4' to 6' depths at a reasonable rate. Using larger equipment such as a bulldozer is good, but keep in mind that any equipment you use needs to complement the laser grading.

The sloped laser that is used to control the laser box blade is set in a central location on the field. You point the axis in the direction that you want to laser grade. It is accurate to the thousands of a percent. After setting the height of the instrument, you will set the receiver to the relative grade of the soil you’re going to grade. The most frequently used type of equipment to laser grade athletic fields is a tow-type box blade. It has a hitch receiver to the draw bar of a tractor and an axle of wheels behind the box blade. It makes it independent of the tractor and provides the most consistent grade. There is also a mast that holds the laser receiver which receives the signal from the sloped laser and sends it to a control box. The control box sends the signal back into an electronic hydraulic valve that controls the box blade that is grading.

In summary, automated laser grading guarantees safety and improved drainage which are the biggest issues on any field. Understanding the method and how it directly impacts the finished result on any playing field should make it a mandatory trade to be included on any field renovation or construction. You do not let plumbers do electrical work, so why would you let a site contractor grade a field when there are sports turf specific contractors with properly sized equipment and specialize in field construction? Site contractors move soil and install the utilities more efficiently and cost effectively. The same logic should go to the Architect / Engineers by specifying laser grading as a trade and including them on all field construction projects. When renovating and constructing fields, properly sized equipment and trained operators make the difference.

Sean Connell is Owner and Primary Project Manager, Georgia Golf Construction, Woodbine, NJ, and a member of the SFMANJ Board of Directors.
Fundamentals of Laser Grading

By Sean Connell

Laser grading is a term in the athletic field construction industry used to describe the process of moving soil with a grading mechanism equipped with an automated control. Laser guided controls can be mounted on any machinery including track hoes, trenchers, motor graders, bulldozers, tractors and infield groomers. In fact, anything with a motor and hydraulic supply can be mounted with an automated laser control system. The fundamental reason to use laser guided equipment is that it creates the most accurate and consistent grade and ultimately improves the drainage, usability, safety, and overall appearance of a sports field.

One of the biggest myths about laser grading is that some fields cannot be laser graded because of the elevations of land or fences that directly encase the field. This is usually untrue. A field can often be laser graded without moving the surrounding topography. In order to do this, you must do the following procedure.

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The field is laser graded. All the soil is in-place and you balanced the soil so you do not have to export or import any fill to complete your job. As construction progresses, the operator is aware of all the issues by looking at the laser box and adjusting the box blade as necessary. With properly sized equipment and trained operators, the field will look and play much better and have a longer life span. So, learn the basics of laser grading and use more consistent methods of construction as we move into the future.

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.

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.
"...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)
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 for when only a portion of the total area is to be killed off. Renovation of a turf should be considered when the condition of the 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 dominant turf species and current density. All weed species should be identified (the weeds can be strong indicators of underlying 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 be 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 increased sensitivity to the chemicals remaining in the soil.

Soil compaction should be alleviated with aggressive hollow tine aeration - 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 expose 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 the 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 in 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 further; the seed can be placed on damp paper in a warm location (70-75°F) until roots can be seen emerging from the seed. With the pre-germinated 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

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MY TURF WENT TO THE DOGS -
Here's the Scoop on Dog Parks
By Jeff Cramer, CPWM

As grounds managers, we often receive requests for special projec-
ts. When our township governing body requested we plan, con-
struct and maintain a “dog park” (off-leash area for dogs) I
realized there were many new challenges – not the least was care
of the turf.

When I announced the project to my staff, most, if not all, were
concerned with the impact of pet waste on staff and equipment.
Shortly after the opening of the park we realized that the pet
waste was the least of our maintenance problems. Long-term care
of the park's turf was our major battle.

Here are some suggestions you may want to consider before in-
stalling a dog park:

FACILITY DESIGN AND CONSTRUCTION
1. Visit other existing sites to determine impact on your main-
tenance program. Don’t reinvent the wheel if you don’t need
to. You can see what is best for you by reviewing what works
and doesn’t work for other dog parks. Our facility was a one-
acre site.
2. Choose better quality fencing materials to provide a safe en-
vironment for dogs and to reduce maintenance. Use largest
wire core and thickest fabric coating, install a bottom tension
wire and use heavier grade posts and rails.
3. Install a double-gated user entrance where owners can un-
leash their pets.
4. Plan an equipment service gate of sufficient size for your turf
equipment.
5. If a water source is available, install a freeze-proof hydrant
convenient to the facility.
6. Do not plant trees or shrubs – they won’t survive!
7. Other things to consider: sitting benches, bulletin board,
shade canopy, port-a-johns.

PET WASTE CONTROL
8. Post user rules and pet waste regulations at several locations.
9. Install several self-serve pet waste clean-up dispensers with
covered and lined waste cans along the inner perimeter.
10. Solicit park users to help enforce self clean-up by owners.
This provided excellent results for our facility. Additional en-
forcement by park rangers if available. This includes pet li-
cense enforcement, control of aggressive animals, etc.

TURF MAINTENANCE
11. Locate the facility in a well-drained area.
12. Our facility consisted of primarily K-31 fescue – the tall fes-
cues provide the best wear tolerance.
13. Soil compaction, both the four-legged and two-legged kind,
was the biggest problem, not pet waste. Aerate several times
per season to help maintain a viable turf.
14. Raise cutting height to 3” – 3 ½”.
15. Conduct soil tests to determine soil phosphorous (P), potas-
sium (K), magnesium (Mg), calcium (Ca) and liming needs.
Apply slow-release nitrogen (N) sources to provide 3-5 lbs Nit-
trogen per year.
16. Remove all sod at the entrance gate and replace with #10 cin-
dered compacted over ¾” clean gravel – the turf will never sur-
vive here.
17. Use a nonselective herbicide containing glyphosate (e.g.,
Roundup) beneath the fence line. Keep the park closed dur-
ing application until herbicide has dried.

For more information go to www.dogpark.com.

Jeff Cramer is a Certified Public Works Manager; Director of Public Works, Howell Township, NJ; and a member of the SFMANJ Board of Directors.

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ROB ANTHONY
UNIVERSITY OF MARYLAND, DIRECTOR OF ATHLETIC TURF

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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, 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 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. You will even learn how the rate of water interacts 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 then 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.

Gross Precipitation Rate = Flow of water from sprinkler nozzle and 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 = πr²).

Net Precipitation Rate = Net catch volume in millimeters x 96.3

Average catch volume in millimeters = 1.56

Net Precipitation Rate = 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. Efficiency can then be calculated using the formula:

Irrigation application efficiency = gross precipitation rate
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.

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.
SFMANJ Field of the Year Contest 2007
Sports Field Managers Association of New Jersey is announcing its annual
Field of the Year (FOY) contest.

ELIGIBILITY:
- Must be a current member of SFMANJ.
- Only schools and public recreation fields are eligible.
- Must be a natural grass facility.

CRITERIA:
- Award will be presented based on:
  - Playability and appearance of the playing surfaces
  - Field size and condition of the playing surfaces
  - Maintainability and cost of field maintenance
- Describe your maintenance program and what you did to improve your field.
- Describe total budget used for this field.
- Fee free to have sports drawn in your field.

SUBMITTING YOUR ENTRY:
Entries are to be submitted by mail and must be received by September 30, 2007. Entries are limited to 10 color photos. Please include the name, location, and owner of the facility, along with your name, position, and contact number.

Medal: SFMANJ 2007 FOY Contest 2007
PO Box 78
Ardenvorl, NJ 08060

AWARDS:
Winners will be honored with a plaque at New Jersey Turfgrass 2007 and will be featured in an article in SFMANJ Enquiring Officer. The winner will also receive a two-week stay at the Trump Taj Mahal, Atlantic City, and three days of education and trade show admission at Cup 2007.

NOTE:
Photos will not be returned and may be used on SFMANJ website and promotional settings.

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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 groundskeepers 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.

SFMANJ members are encouraged to attend the Rutgers Lawn, Landscape, and Sports Turf Research Field Day on Wednesday, August 1, 2007 at the Rutgers Adelphia Research Farm in Adelphia, NJ. SFMANJ will be sponsoring equipment demonstrations.

Calibration and operation of backpack sprayers is a common tour stop during Rutgers’ Summer Field Days.

Deep tine cultivation equipment has been demonstrated at past SFMANJ-sponsored equipment field days.

Killin’ weeds and takin’ names. Dr. Steve Hart, Rutgers University, explains his latest herbicide efficacy work at a past Rutgers Lawn, Landscape, and Sports Turf Research Field Day at Adelphia.
Dr. Jim Murphy (holding soil plug), Rutgers University and SFMANJ Advisor, annually participates in Rutgers Turfgrass Research Field Days by delivering practical turfgrass education.

Kickin’ the tires … or tines? SFMANJ-sponsored Field Days are a great opportunity to examine the latest equipment offerings from local distributors prior to making a purchasing decision.

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.

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Geier, Scott 
Hawthorne Borough DPW
Kelsey, James C. 
Partac Peat Corp./Beam Clay
Lawson, TJ 
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Maher, Mal 
Turf Sewing Machinery, Com
Meisner, Janet 
Byram Township
Ravaschiere, Frank 
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Sheeran, Jerry 
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SFMANJ Annual Membership Registration Form
*receive update information by email

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

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This newsletter is the official 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) 932-8711, x127
Editor: Brad Park, Rutgers University
Email: park@aesop.rutgers.edu
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Sports Field Managers Association of New Jersey (SFMANJ), in cooperation with Rutgers University, and New Jersey Turfgrass Association (NJTA) is sponsoring a Summer Tradeshow / Outdoor Demo Day. Our tradeshow will be held in conjunction with the Rutgers Lawn, Landscape, Sports Turf Research Field Day at the Rutgers Adelphia Research Farm in Adelphia New Jersey on Wednesday, August 1, 2007.

The tradeshow will highlight product suppliers from all across New Jersey and beyond. If it is available in the marketplace you will have the opportunity to view it first hand. Attendees will not only have the opportunity to inspect products, but also view those products selected for demonstration under actual working conditions. The field day is the only tradeshow in New Jersey which also offers outside equipment demonstrations.

Our tradeshow is built around the Rutgers Lawn, Landscape, and Sports Turf Research Field Day. During the walking tour, attendees will have the opportunity to view firsthand, major advances in turfgrass breeding. See tomorrow’s cultivars today.

Dr. Steve Hart will be on hand to provide useful information on new herbicides available for athletic field and landscape turf. New product lineups are sure to help improve current weed control strategies and effectiveness on your facilities.

Dr. Albrecht Koppenhofer will discuss identification and control of major insect pests. This information is critical to managing quality sports turf.

Dr. Bruce Clarke will discuss the latest strategies for disease control on sports and landscape turf.

So, don’t miss out on a day of equipment demonstrations, new product reviews, informative discussion and always, good food and hospitality.

Pesticide recertification credits will be offered.

Jim Hermann, CSFM is a Certified Sports Field Manager; President, Total Control, Inc.; and a member of the SFMANJ Board of Directors.

The schedule for August 1 is as follows:

7:30 am Registration and Trade Show Opening
8:45 am Welcome
9:00 am Research Tours
11:00 am Lunch and trade show
12:00 pm SFMANJ Equipment Demonstrations
2:00 pm Research Tours
3:00 pm Conclusion – pesticide credits

For more information log on to www.sfmanj.org or www.njturfgrass.org.

Dr. Steve Hart will be on hand to provide useful information on new herbicides available for athletic field and landscape turf. New product lineups are sure to help improve current weed control strategies and effectiveness on your facilities.

Dr. Albrecht Koppenhofer will discuss identification and control of major insect pests. This information is critical to managing quality sports turf.

SFMANJ to Sponsor Tradeshow & Outdoor Equipment Demonstrations at Rutgers Lawn, Landscape, and Sports Turf Research Field Day

By Jim Hermann, CSFM

Mowing equipment from various manufacturers will be on-display and demonstrated during the SFMANJ sponsored tradeshow and equipment demonstrations at the 2007 Rutgers Lawn, Landscape, and Sports Turf Research Field Day at Adelphia.

Deep tine cultivation equipment has been demonstrated at previous SFMANJ-sponsored events. Don’t miss Wednesday, August 1, 2007 at Adelphia, NJ.