

SFMANJ AUGUST DEMO FIELD DAY
Thanks to participating vendors
!!!

THANK YOU to Paramus Catholic High School and George Van Haasteren for providing the site and accommodating our chapter.

THE FOLLOWING VENDORS DEMONSTRATED THEIR EQUIPMENT AND DISPLAYED PRODUCTS & SERVICES:

Aer-Core, Inc. - Turf Equipment

Blec Sandmaster Sand Injector,
 Wiedenmann Deep Tine Aerator

Finch Turf Equip. - Turf Equipment

John Deere Field Rake Groomer

JDL Equipment - Turf Equipment, paint machines

Easy Mix
 "No Mix Self Cleaning Battery Powered Field Liner"

RotaDairon Emrex, Inc. - Turf Equipment

Finn Mini Skidsteer, Thatch Master, OverSeeder

Storr Tractor Co. - Turf Equipment

Toro Groundsmaster 3500
 First Products Aeravator, aerator seeder
 Buffalo Turbine Blower on WM2100

Till Paint Co. Inc. - Quality paint

Jaydee Driver Liner

Sunshine Tree & Landscape - Turf Equipment

Bed Edger/Trenchmaster

Wilfred McDonald Inc. - Turf Equipment

Smithco Super Rake Infield Conditioner
 I-Stripe 22 Infield Mower
 Jacobsen Turfcut Rotary Mower
 Topdresser

THE FOLLOWING VENDORS DISPLAYED THEIR PRODUCTS AND SERVICES:

The Terre Company - Turf Supplies

National Seed - Specializing in quality grass seed

Landscape Plus - Goose & Deer Control

Geo.Schofield Co. Inc. - Athletic Turf products

DVH Athletic Turf - Athletic Field construction & maintenance

Rain Bird Corp. - Irrigation Supplies

Treadlite Paver Supply Co. - Playground surfacing, ground pavers

SFMANJ BUSINESS

Next Board of Directors Meeting – Sept. 10th
 Wed., 4pm at Storr Tractor Company on Rt. 22,
 Somerville.

Rutgers University Sports Turf Outreach Program 2003
October 2nd Workshop
 Snyder Research Farm - Pittstown, NJ

Schedule:

11-11:30 Registration

11:30 – 12:15 Lunch

12:15 – Plot Tours

- Effects of Mowing Height, Mowing Frequency, and Fertilization on Turfgrass Quality
- Broadleaf Weed Herbicides & Application Timings
- Cool Season Turfgrass Establishment following winter seeding/effects of seeding dept on turfgrass establishment
- Baseball infield mix demonstration
- Turf paint technology and inclusion of primo growth regulator

2:30 – 3:30 Indoor education

- Pesticide storage & handling & equipment calibration
- Cultural practices influencing disease management

NJDEP Pesticide credits: core and category

TO SIGN-UP SEE FORM ON PAGES 3 & 12

INSIDE THIS ISSUE

Board of Directors	2
Welcome New Members	
Membership Form	
Calendar of Events.....	3
"Before You Mow It, You Gotta Grow It".....	4
"An Ocean County Athletic Field Construction Story".....	9
Monthly Field Tip "Bag Worms".....	11
"October Workshop Registration Form"	12
"Weather & Disease".....	14
"One Sports Field Manager's Experience".....	15
Question & Answer.....	18
"Sports Turf News".....	19
Proud Sponsor Directory.....	20

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 730-7770 or 908-236-9118
 Co-editors
 Jim Hermann, CSFM & Eleanor Murfitt

2003

SFMANJ BOARD OF DIRECTORS

President..... Eleanora Murfitt CRS
Washington Twp Parks & Recreation

Vice President..... Jim Hermann CSFM
Total Control Inc

Secretary..... Fred Castenschild
Storr Tractor Company

Treasurer..... Dean Marzocca
Dean's Lawn & Landscape Co.

DIRECTORS

- Dr. James Murphy - Rutgers University
- Dr. John Grande - Rutgers Snyder Research
- Bud Perdun - North Brunswick School
- Tom Torpey - Township of Monroe Parks
- Jeff Cramer - Plainsboro Township DPW
- George Van Haasteren CGM - Sports Field Management Systems Inc.
- Clare Liptak - Rutgers University
- Advisor.....Dr. Henry Indyk
TurfCon GSI Consultants, Inc.

MISSION STATEMENT

Committed to enhancing the professionalism of athletic field managers in New Jersey 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:

P.O. Box 370
Annandale, NJ 08801
Web Site - www.sfmanj.org
E mail - hq@sfmanj.org
Ph/Fax - 908-730-7770

National Organization
Sports Turf Managers Association

Web Site - www.sportsturfmanager.com
E mail - SportsTMgr@aol.com
Phone - 1-800-366-0391

"Welcome New & Renewed SFMANJ Members"

Currently we have 286 members. If you have not renewed your membership, send in the membership form from this newsletter or call (908) 730-7770.

- Paul Berezny Sunshine Tree & Landscape
- Gary Brick Mainland Regional High School

- James W. Casey Lakewood Township
- Dave Coleman Raritan Township Public Works
- Jeff Cramer Plainsboro Township
- Anthony Diaforli Princeton Regional Schools
- Joy Dobrosky Better Materials Corp.
- Jeffrey Dorer Morris Hills Regional District
- Will Fanner Old Bridge Township
- Richard Garrett Middletown Board of Education
- Kevin Haines Middletown Board of Education
- Robert Hickey North Colonie Central Schools
- Chris Hustus Lenape Board of Education
- Jerry Kubis Treadlite Paver Supply Co.
- Robert Manning Piscataway Twp Board of Ed
- William Mateyka Old Bridge Township
- Ken McClure Weymouth Township
- Craig McCoy Scotch Plains Township
- James Messina Landscape Plus
- Steve Polakowski Seton Hall University
- Mark Saft Mainland Regional High School

Continued on next page....

SFMANJ Membership Registration form

* receive update information by email

Name _____

Title _____

Employer _____

Address _____

City _____

State _____ Zip _____

County _____

Phone _____ Fax _____

*E-Mail _____

Signature _____

Individual.....\$35

Associate..... \$35

Organization/Institution.....\$35

Additional member from facility.....\$20

Commercial/Contractor/Vendor/Supplier.....\$85

Additional member from company.....\$25

Student.....\$10

Send with Check or voucher to:

SFMANJ
P.O. Box 370
Annandale, NJ 08801

Continued from page 2, new members.....

Arsenius	Terrill	Morris Hills Regional District
Thomas	Williams	East Brunswick Township
Robert	Young	Fair Lawn Borough
Ron	Zaleski	Borough of Glen Ridge
Brian	Shanley	Barnegat Board of Education
Dave	Sigler	Lindenwold Board of Education
Vince	Sodano	Mainland Regional High School

CALENDAR OF EVENTS

Rutgers

October 02, Work Shop Snyder Research & Extension Farm, Co-Sponsored by SFMANJ
 140 Locust Grove Road, Pittstown, NJ
 11:00 AM (Registration Sign In)
 If you did not receive a flier call 908-730-7770
Check our website for full details: www.sfmanj.org

NJ Turf Grass Association

Dec. 8 – 11 Expo 2003 Atlantic City, NJ
 Athletic Field Educational Session

Wednesday – December 10

Noon to 4pm Trade Show
 4-6pm *Synthetic Surfaces for Athletic Fields - Panel*
 Playing Surface Characteristics of In-Filled Systems
Dr. Andrew McNitt
 Experiences with Playability and Maintenance
Fred Stengel
 Economic Considerations
Dr. Henry Indyk
 Experiences and Concerns with Synthetic Turf
George Toma

Thursday – December 11

8:30-9:30AM *Understanding Wear and It's Management*
 – Panel
 What is it?
Brad Park
 Turfgrass Species and Varieties: Selecting for Tolerance
Stacy Bonos
 Management Practices for Minimizing Impact of Traffic
Dr. James Murphy
 School IPM – It's the Law
Ann Waters
 10 AM – Noon Tradeshow
 12:30–1:00 PM SFMANJ Business Meeting
 Field Preparation for the Super Bowl
George Toma
 Topdressing – Benefits, Materials, and Techniques
Dr. Andy McNitt
 Meeting the Challenges of Sports Field Management
Kevin Meredith
 Specifications for Contracted Maintenance Services
Jim Hermann, CSFM

WATCH FOR MORE DETAILS IN THE MAIL



Count on it.

*Toro Irrigation
Athletic Field Specialists*

For sales and design assistance, contact:
Storr Tractor Co. Phila. Turf Co.
Mike Pastori Rich Toleno
908-722-9830 267-266-0389

Field Rakes that make the grade

Our John Deere Field Finishers give you tremendous versatility when it comes to maintaining your athletic fields or park areas. A variety of attachments will make the job easier.



JOHN DEERE

www.JohnDeere.com

NOTHING RUNS LIKE A DEERE

www.finchinc.com

FINCH

SERVICES, INC. Est. 1945

Westminster, MD
 Serves MD, DE, PA, WV, NVA
410-876-2211
 1127 Littlestown Pike

N. Wales, PA
 Serves E. PA & NJ
215-661-0390
 419 Industrial Dr.

N. Huntingdon, PA
 Serves W. PA, wMD, WV
724-861-5657
 11299 Rt. 993

FOR SALE

40" Aeravator

3 point hitch PTO powered
 Used one season, great condition

\$2,200

Call for details

908-236-9118

“Before You Can Mow It, You Gotta Grow It”

by Jim Hermann, CSFM

Mowing management is one of the most important considerations in an effective athletic turf management program. Far too often proper mowing technique and its impact on turf quality is not adequately addressed when developing a program.

A widely accepted misconception is that aggressive top growth is merely a product of the application of nitrogen fertilizer. Continued turf development, recuperation and therefore top growth are the results of many influences, the most important of which are soil pH, air (oxygen), moisture and nutrient availability. Outside influences affecting turf quality include height of cut and intensity of use. A turf grown in a balanced environment with proper soil pH, adequate aeration, soil moisture and nutrients is healthier, more aggressive and more resilient than a turf either over or under fortified with any one of the individual components, providing of course it is mowed properly and not over played.

As you develop your turf management program it is important that you continually reevaluate your program and address the limiting factor. Any of the influences, pH, air, moisture, nutrients, height of cut or intensity of use has the ability to become the limiting factor. I consider the limiting factor in a program to be that influence which is most restricting in the future improvement of your field.

Think of it this way. If you were stranded in the desert, air would not be the limiting factor in your survival. If you were submersed in a tank full of water, chances are you wouldn't die of thirst. On the other hand, if you were confined to a room with all the air you could breath and all the water you could drink, food would ultimately become the limiting factor in your survival, providing of course that Dominos doesn't deliver in your area. I once heard, “although the primary objective may be to drain the swamp, it's sometimes difficult to do when you're up to your butt in alligators”. Alligators could be a very limiting factor.

Here is a question to ponder. If the football team destroys the field because they played when the field was too wet, what is the limiting factor, poor drainage or poor communication and cooperation?

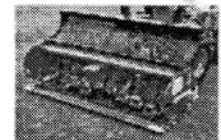
In light of this philosophy it is vital to understand that turf management is site specific. Influences specific to each individual field impact greatly on the cause and effect of different applications and procedures. Some fields may have more alligators than others.

Continued on next page.....

THE GREATEST TEAM ON TURF!



Wilfred MacDonald is your team when it comes to athletic field equipment. We offer a wide ariety of equipment from striping reel and rotary mowers to athletic field conditioners, line strippers, groomers, top dressers, aerifiers and more! Our comprehensive line of Textron Turf, Smithco, Turfco, National and Vertidrain gives you the largest variety of turf equipment to choose from! Contact your sales representative today for a demonstration!



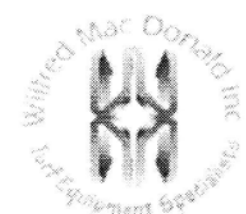
TEXTRON
GOLF & TURF

NATIONAL MOWER COMPANY



Wilfred MacDonald, Inc
19 Central Boulevard
South Hackensack, NJ 07606
888-831-0891
www.wilfredmacdonald.com

Sales Representatives:
Bernie White
Mike Clifford
Tim Kerwin
Mike Pelrine



Continued from page 4 .."Before You Can Mow"

Word to the wise; always keep your eye on the biggest alligator.

You must keep in mind that there are no steadfast rules on athletic turf management, only concepts and principles, which can vary, based on individual field conditions.

I am sure that many of you have certain fields that grow faster or slower than others. Different fields may have different usage schedules or different soil conditions and therefore need to be treated differently. As a sports field manager it is your job to evaluate each individual field and address the limiting factor based on the site-specific influences you have observed. You may have to aerate one field more often than another or cut back on the fertilizer for one field as compared to another. Irrigation strategies are very dependent on site-specific influences.

In general an athletic field consisting of cool season turf, being provided adequate air, water and nutrients can be maintained at a height of 2 ¼ " – 2 ¾ " throughout the growing season while being mowed on a twice per week schedule, closely conforming to the 1/3 rule which states "no more than 1/3 the leaf should be removed at any one time". Periodic evaluation of turf density, color and growth habit is the bottom line in any maintenance program.

The very best way to address both air and moisture availability in the soil is soil cultivation. The most typical form of soil cultivation for established sports turf is aeration. Aeration comes in many different forms such as aeravation, core, slice, solid tine, deep tine, water injection etc. The main purpose of aeration is to increase the percentage of macro or large pore space in the soil and by doing so decrease bulk density. Micro or small pore space in the soil retains moisture and nutrients. The larger macro pore spaces allow good air (oxygen) to enter the soil while allowing bad air (gases) to exit the soil. In addition excess soil moisture is capable of draining or percolating from the soil's macro pores, minimizing (not eliminating) the potential for a saturated situation in wet conditions. Moisture is also able to enter or infiltrate the soil more efficiently through macro pores.



**Suppliers to the
Sports Turf
Industry**

Moyer & Son, Plant Nutrients offers a complete line of professional sport turf care products to deliver your quality expectations. Custom blend liquid sport turf fertilizers, **M.O.S.T.** organic fertilizers, Moyer **Green Gro** granular sport turf fertilizer, exclusive grass seed and erosion control products. Contact our New Jersey Turf Consultant.

Doug Gray

Office: (856) 256-0773 Cell: (215) 620-1054

Another benefit, which is coupled with the efficient exchange of air (oxygen), gases and water, is the efficient utilization of naturally available and applied nutrients. This increased efficiency in the utilization of available nutrients, developed through effective aeration can increase vitality and growth rate without the need for additional fertilization. Aeration is in my opinion the most under rated overlooked procedure available to the sports field manager.

Here's a little tid bit. Oxygen diffuses 10⁴ times faster through air than through water. (Adams, W.A. and R.J. Gibbs. 1994. *Natural Turf for Sports and Amenity*. CAB International, Wallingford UK, 1st ed.)

I think that means 10,000 times faster. An example of oxygen diffusion through water would be by the use of an air pump in a fish tank to oxygenate the water. Unfortunately this is very impractical on an athletic field. When you see standing water in you turf you can be assured the development of that turf is being compromised. Utilization of nutrients by the turf can effectively cease under saturated conditions until "field capacity" is regained in the soil after substantial rain.

Crop Production Services



Agronomic Products / Services

**Profit From
Our
Experience**

Crop Production Services, Inc.
127 Perryville Road
Pittstown, NJ 08867

766 Rt. 524
Allentown, NJ 08501
(609) 259-7204

Toll Free: 1-888-828-5545
Bus: (908) 735-5545
Fax: (908) 735-6231

*Seed *Fertilizer
*Lime *Soil Testing
*Pest Control Products
*Custom Applications

I would like to stray from the subject of turf nutrition for a brief definition of the term "field capacity".

Field capacity is considered the point at which all "free water" or gravitational water has drained from the soil due to the force of gravity. Free water drains through the macro or large pores in the soil. At field capacity all remaining water in the soil is held in the micro or smaller pores against the force of gravity due to adhesion and cohesion. Adhesion is the attraction of one material to another. Adhesion is why you are still wet when you walk out of the shower. The water adheres to your skin like it adheres to the soil particles. Adhesion is the attraction your skin or the soil exerts on the water. The adhesive quality of the towel is greater than that of your skin so it dries you. If the adhesive force or attraction of a material to water is great enough it will draw or hold water against the force of gravity, (like a wet towel). Such is the relationship between remaining moisture and *soil at or below field capacity*.

Cohesion or surface tension as it is also referred to is the attraction of water to itself. Cohesion is why water beads up on a surface. The individual water molecules are

Continued on next page

Continued from page 5 Before You Can Mow"....

attracted to each other creating a bead or water drop.

Example: If you spill water on the kitchen counter, the water stays in a puddle due to surface tension or the cohesive quality of water. When you use a paper towel (preferably the quicker picker upper) the adhesive quality of the paper towel is greater than that of the counter top so it soaks up the water. Did you ever try to soak up water with wax paper? If you answered yes, you better read this twice. These few facts are some of the fundamentals necessary for a basic understanding of effective drainage technique. Now, back to nutrition.

If you have read the other articles in this issue of "SFMANJ Update", you can see there are many sources of nitrogen, phosphorous and potassium. The selection of your nitrogen source is another important aspect of mowing management. Consideration should be given to nitrogen availability in an application and not strictly the total amount of nitrogen applied.

Example. I want to apply a light application of nitrogen in late May to aid the turf in producing the top growth necessary for carbohydrate production to get it through the summer. A relatively light application based on applications I have made would be considered 1/2 lb. actual nitrogen per thousand square feet of a water-soluble nitrogen source, which would feed the turf for approximately three or four weeks. The more soluble a nitrogen source is, the more quickly it is available to the turf. The flip side is that the more soluble the material, the shorter the amount of time is that the material remains available to the turf. From an environmental point of view, soluble forms of nitrogen are more likely to leach beyond the root system or off target. A good understanding of your individual soil is necessary to make an educated decision on the source and amount of nitrogen you use.

For a late May application, I would be more inclined to choose a product that incorporates a slowly available nitrogen source. Due to the potential for hot dry weather at this time of year, I would be looking for a product with a lower salt index. A less salty product would minimize the potential for burn. Two products would be at the top of my list. One product would be IBDU and the other would be



**fisher & son
company, inc.**

Superior Products for Sports Turf Professionals

Randy Rider

302-242-6848

Earthworks • Lebanon • Grigg Bros.



**SPRING
IRRIGATION CO., INC.**

732-821-5767

COMMERCIAL • ATHLETIC FIELDS • INDUSTRIAL

*Statewide Service Since 1978
NJ Certified Contractor D.E.P. #15040
Certified Designer I.A. #180186*

FAX: 732-821-0130

E-Mail: spring@ifu.net
P.O. Box 523, Dayton, NJ 08810-0523

methylene urea. Due to the slower rate of availability, I would apply either of these products at a higher rate of 1 ¼ - 1 ½ lb. per thousand square feet. *Product selection and Individual rates could vary based on site-specific factors.* A suitable nitrogen source could effectively feed the turf for a longer period of time, reduce the potential for burn and provide for controlled growth.

Another option that does exist to the sports turf manager is the option of spoon-feeding the turf. This option would include periodic applications of a water soluble nitrogen source typically applied at an increased frequency, at lower rates, with the objective of more closely controlling nutrient availability while minimizing product cost. A much higher level of expertise along with increased labor resources is necessary to implement this type fertility program.

Site-specific influences determining the rate of a nitrogen application and also a contributing factor in product selection and frequency of applications would be:

1. Do I have irrigation?
2. What sports are played on the field and when?
3. How intense is the level of play?
4. Have I recently seeded?
5. What is my mowing schedule?
6. How aggressive is my maintenance program?
7. What is my maintenance budget?
8. What is the current condition of the turf?
9. Do I want to improve quality of maintain quality?

Example: I maintain a soccer complex that was not treated with a late season fertilizer last fall. I wanted to jump start the turf in the early spring due to the practice schedule for Lacrosse. The same fertilizer considerations were made but in this case I chose to use ammonium sulfate as my nitrogen source. It is a very soluble form of nitrogen with excellent cool weather response. I applied ½ lb. per thousand square feet. The Turf responded well with no excessive top growth. I define excessive as being a rate of growth, which goes beyond my ability to maintain quality given my anticipated mowing schedule. Again, periodic inspection of the turf to determine health and vigor along with a consideration for site specific and environmental conditions is the bottom line in determining

Continued on next page.....

Continued from page 6 "Before You Can Mow"....
the effectiveness of your program.

One last example: I want to make a fertilizer application around Labor Day to boost the turf and help to prepare it for fall sports. This application is typically made as the nights start to cool down in the fall and adequate soil moisture is available. Salt index of your nitrogen source is not a critical consideration due to the cooling trends and adequate moisture availability. In general, the turf has about another eight weeks of substantial top growth before the onset of dormancy so fertilizer that incorporates virtually any of the "slow release" nitrogen sources will provide adequate sustained growth. There are many standard formulations readily available that incorporate potassium, phosphorous and micronutrients.

Agricultural fertilizer blends are also very effective while being able to incorporate any necessary potassium and phosphorous and keep costs down. Agricultural blends of fertilizer that I am aware of are typically blended with soluble forms of nitrogen such as urea, ammonium sulphate or DAP (diammonium phosphate). These blends are usually higher in potassium and phosphorous than are many standard turf maintenance blends due to their use in the agricultural market place. Agricultural produce generally removes potassium and phosphorous from the soil as the crop is grown and harvested. Therefore, higher application rates of these nutrients are generally necessary for proper management of the soil. Typical blends may include 5-10-10, 15-15-15, 10-20-20, 20-10-10 and 19-19-19 (corn starter). Another benefit of locating a supplier for this type of fertilizer is that some suppliers have the ability to custom blend formulations based on your needs.

I believe that regardless of the nutrient source you choose, as long as it is applied properly using sound agronomic principles, it would rarely have the potential to become the limiting factor in your program. However, a lack of knowledge and understanding, causing the inappropriate or ineffective use of a nutrient source would certainly have the ability to become the alligator in you swamp. Make it a point or rather a challenge to understand the products you or your contractor chooses.

The objective of your sports turf management program should be to develop and maintain an adequate base fertility level. This fertility level should consist of proper soil pH along with optimum levels of potassium, phosphorous and micronutrients while maintaining minimum nitrogen levels sufficient for sustained turf growth and development. This fertility level should be augmented with additional nitrogen during periods of time favorable to turf recuperation and root development while providing an environment conducive to efficient nutrient uptake and utilization through the administration of proper cultural practices. In the vernacular of the layman "Give it what it needs".

It is important to realize that nutrition, aeration, drainage and irrigation are all concepts that are closely interrelated. Acquiring a basic understanding of all these principles and how they affect one another is a major step toward becoming a successful sports field manager. ▲

McIntyre, K. and B. Jacobsen. 2000. *Practical Drainage for Golf, Sportsturf and Horticulture*
Sleeping Bear Press
Harpstead, M.I., T. Sauer, W.F. Bennett. 2001. *Soil Science Simplified*
Iowa State University Press, Ames Iowa, 4th edition
Adams, W.A. and R.J. Gibbs. 1994. *Natural Turf for Sports and Amenity*.
CAB International, Wallingford UK, 1st ed.

Test Your Understanding of the preceding article. (Answers on page 15)

1. Six factors affecting turf quality are:
 1. _____
 2. _____
 3. _____
 4. _____
 5. _____
 6. _____
2. Effective mowing management relies on following the rule. _____
3. _____ is the most typical form of soil cultivation for established athletic field turf.
4. _____ pores are large pores in the soil.
5. _____ pores are small pores in the soil
6. Aeration increases _____ and decreases the _____ of soil.
7. Water soluble nitrogen has the potential to _____ beyond the root system.
8. The _____ of a fertilizer source is an important consideration in product selection for summer application when irrigation is not available.
9. Over application of nitrogen fertilizer may cause _____ top growth
10. _____ are a limiting factor when attempting to drain the swamp.



Lofts Seed
A Division of Pennington Seed, Inc.



PENNINGTON
Lawn & Garden Products

Mark Hardek
Territory Sales Manager

Lofts Seed, Inc.
9327 US Route 1
Suite J
Laurel, MD 20723

Office: 800-732-3332
Fax: 610-524-7047
Cell: 215-990-9061
mhardek@comcast.net

RICCIARDI

Ricciardi Brothers • The Paint & Decorating People

*Visit us at any of our convenient locations
or on the Web at www.ricciardibrothers.com*

BLOOMFIELD	287 BLOOMFIELD AVE.	973-748-3030
PARSIPPANY	160 RT. 46 WEST	973-276-0400
EDISON	802 US HWY 1 NORTH	732-650-1903
TEANECK	215 W. ENGLEWOOD AVE.	201-837-3468
MAPLEWOOD	1915 SPRINGFIELD AVE.	973-762-3830
SADDLE BROOK	400 MARKET ST.	201-843-5325
MORRISTOWN	145 SOUTH ST.	973-538-3222
GREENBROOK	396 RT. 22 WEST	732-868-4200

SPECIAL ON ATHLETIC FIELD Marking Paint!

**Benjamin
Moore**

\$24.95

5 Gal

Duron

\$24.95

5 Gal

Pittsburgh

\$22.50

5 Gal

**Fox Valley
Spray Cans**

\$36.75

Case (12)

**Seymour
Spray Cans**

\$33.75

Case (12)

“An Ocean County Athletic Field Construction Story”

**by Richard Oats*

For those of you who have attended a Floyd Perry seminar or read one of his books, you know he is legendary for teaching athletic field managers how to creatively make the most of resources at hand. Floyd Perry will point out how you can save hundreds of dollars by using a piece of chain link fence to make an infield drag mat instead of purchasing one off the shelf. What if you used this same type of frugal resourcefulness to save **thousands of dollars** on an athletic field project? It is being done in Ocean County New Jersey—known for summer vacations and sandy soils.

In 1999 Casey Parker (Sports Field Manager Association of NJ Member # 992) was given the task to build two new football fields in the Pine Barren sandy soil of Lacey Township. Casey knew soil amendments were desperately needed or the sand would forever pose a problem for water and nutrient retention and healthy turf rooting. It so happens that Casey is the Director of Public Works in Lacey, which includes the Parks Department, the Road Department and a Class C Leaf Composting Facility. While many architects would spec in the addition of an outside source of topsoil to amend a poor athletic field soil, Casey thought differently. Casey had mounds of composted leaf mulch readily available and two new fields sorely in need of organic enhancement. Casey cleared the site and stripped the native soil (mostly sand) off. Rather than trucking in topsoil, Casey trucked the “native strippings” back to his compost facility and blended 1 part leaf compost to 2 parts native soil. A trommel screen was borrowed from the good people at the Ocean County Recycling Center for screening and blending the final mix. The material was transported back to the job site and was disked into the top 6 to 8 inches of the soil profile. In addition to the leaf compost, Casey added lime and Oceangro® 5-5-0 fertilizer.

Casey knew about Oceangro for two years but was hesitant to try it for public relations reasons. Oceangro is an organic granular fertilizer derived from sewage sludge solids that are heat dried and screened into a granular product. Casey didn't think the public would be friendly to the thought of such a fertilizer being applied to their athletic fields. He decided to give Oceangro a chance however, after learning the EPA and NJDEP monitor fertilizers like Oceangro and the NJ Department of Agriculture registered Oceangro as a fertilizer—like any other fertilizer on the market. Casey decided a control test was in order to see if Oceangro made a difference as a grow in product. Half of the new football field complex was fertilized with a synthetic starter fertilizer and the other half was fertilized with Oceangro. When the field came in, Casey noticed a dramatic difference between the Oceangro half and the synthetic side. Casey noticed the Oceangro section had a much better germination

success (7 days instead of the 3 weeks needed for the synthetic starter fertilizer field) as well as significantly deeper rooting. It didn't take long to decide it would be best to disk the synthetic field in, add Oceangro and reseed to allow the field to grow in evenly. Best yet, since Oceangro is a product of Ocean County—the Ocean County Utilities Authority **donated Oceangro to Lacey Township at no charge** and The Authority even loaned a spreader to Lacey Township to help spread Oceangro.

Casey seeded his fields at a 5 to 6 lb. per thousand square foot rate with a 90% Turf Type Tall Fescue and 10% Bluegrass and witnessed great germination with his leaf mulch/Oceangro mixture. He didn't stop there however—the following season he aggressively followed up by slit seeding at 2 to 4 lbs per thousand to push the turf density to where he wanted it. So how did the fields turn out? Lacey Township Athletic Fields have a reputation for being the best in the area. Casey himself keeps the standard high—he says he likes to keep his turf “dense & deep”. Since the two football fields were grown in, Casey has used the same method for building all new fields in Lacey Township. There have never been any complaints about how he built his fields or the use of Oceangro and almost no one knows how much money Casey saved Lacey by leveraging the resources at hand. Casey Parker noted that while Oceangro did a great job as a grow in fertilizer, he now uses Oceangro at the end of his sports season as a micro nutrient dormant

Continued on page 11.....

Oceangro

5-5-0

Granular Organic Fertilizer
With 2% Calcium & 2% Iron
Sold in bulk or bagged

low dust
clean consistent size
low salt, low burn potential
for grow-in of athletic fields

Used by over 60 golf courses in New Jersey
& growing

Produced by the Ocean County Utilities Authority
732-269-4500 Ex 8331 www.ocua.com

TRI STATE ATHLETIC FIELD SERVICES

145 North Franklin Turnpike

Suite 109

Ramsey, NJ 07446

PHONE: 201-760-9700

FAX: 201-760-9791

Email: www.tristateathletic@aol.com

Specializing in Athletic Field Design, Construction and Maintenance



“PLAY IT  CALL TRI STATE®”

National Award Winning Turf Programs

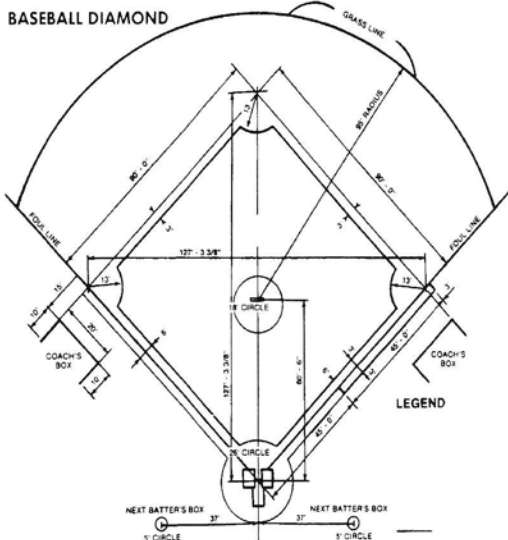
OTHER INVESTMENT SERVICES & SUPPLIES:

- **CONSULTING/BID SPECS**
- **TOPDRESSING**
- **TOPSOIL/SAND**
- **CORE AERATION**
- **SEED/SOD**
- **INFIELD CLAY**
- **CLAY DRYING MATERIAL**
- **WARNING TRACKS**
- **FIELD GROOMING**
- **FIELD LINING**
- **FIELD BASES**
- **FIELD MARKING PAINT**
- **FIELD STENCILS**
- **SYNTHETIC SURFACES**
- **GOLF PUTTING GREENS**
- **SAND TRAPS/BUNKERS**

CERTIFIED *FLIGHT CONTROL* ®APPLICATOR
THE SOLUTION TO GEESE CONTROL

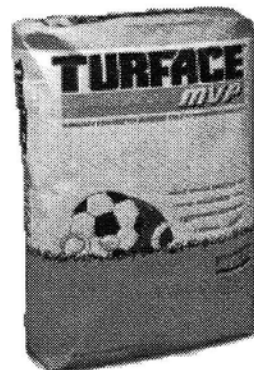
Licensed, Insured & Bonded

Bob Buono
President



Terre Has a full line of Sports Turf Products

- Infield Clay Mixes
- Surface soil conditioners
- Grass Seed
- Fertilizers
- Pesticides
- Top Dressing
- Goose Control
- Turf Blankets
- Marking Paints



Keep Your Ball field's safe and looking great!! TERRE has the products from grass seed and fertilizer to infield clays and Sports Field Conditioners like Turface products

The **TERRE Co.**

Call For a Catalog or Inquiries

Tel: 973-473-3393

Fax: 973-473-4402

206 Delawanna Ave Clifton NJ 07014

Continued from page 9.....

fertilizer supplement. "Oceangro is great but it's not a magic pill that will replace all other fertilizers." Casey likes the slow release, non-burning, non-leaching nature of the organic side of 5-5-0 Oceangro. He equally values the ease of application and complete analysis of the 19-19-19 synthetic fertilizer now in use on his fields for the rest of his program. Casey recognizes the importance and shortfalls of both organic and synthetic products and uses both to the advantage of maximum turf health.

To gain the benefit of both worlds of organic and synthetic fertilizers, some fertilizer blenders offer hybrid blends combining both

If your soils are deficient in organic matter—like the sandy soils in Ocean County—adding organic fertilizers or hybrids is a step in the right direction, but a permanent fix requires bigger thinking. Purchasing and adding topsoil is one option, adding leaf compost you have on-hand is another demonstrated and more resourceful way to accomplish the same task.

The next time you're in Ocean County, check out any Lacy Township athletic field. Here is proof of a turf manager who knows what he is doing, is open minded and has saved his Township a bundle by working with what is available. ▲

**Richard Oates is a Sales and Marketing Coordinator for The Ocean County Utilities Authority in Bayville, NJ
www.ocua.com*

"Monthly Field Tip" Bug of the month "Bagworms"

*by Jim Hermann, CSFM**

Although not specific to sports fields, these little noseemus can be devastating to the beauty of the landscape and cause much anguish to the grounds manager.

Little brown bags attached to twigs on the outer most branches of both deciduous and evergreen trees and shrubs are the tell tale sign of this pest. At first glance, these bags resemble a bit of dead foliage. Further examination will reveal a bag up to 2 inches in length composed of interwoven bits of dead foliage, twigs and silk. During the summer, a dark brown or black caterpillar is contained in the bag. Initially the caterpillar drags the bag around as it feeds on leaves, enlarging the bag as it grows. By late August, the caterpillar finishes feeding and attaches the bag to a twig. Inside the bag, it forms a pupa. Several days later, an adult moth emerges from the pupa. The female is wingless and stays within the bag. The male then flies to the old bag (or rather the bag containing the female) and they mate while she is still inside. She then lays a mass of eggs within the bag and dies.

Continued on next page.....

Continued from page 11 "Bagworms"

The eggs hatch around May or June. Newly hatched caterpillars crawl out of the bag and immediately begin feeding on leaves. In severe infestations, the entire plant is defoliated and bags can be seen hanging from the existing twigs and branches. This degree of infestation often kills evergreens such as arborvitae and cedar but may only slow the growth of a deciduous tree or shrub.

Control of this insect is recommended through the use of a spray containing either acephate (Orthene) or carbaryl (Seven) between late May and mid July. More environmentally sensitive sites can be treated with the biological insecticide, Bacillus thuringiensis (Bt). The optimum timing for effective control can vary from site to site, year to year. Check with your local Rutgers Cooperative Extension for effective treatment dates and products for your area. ▲

The Ortho Home Gardener's Problem Solver, Copyright 1997. Monsanto Company

**Jim Hermann is a Certified Sports Field Manager and President of Total Control, Athletic Field Maintenance and Consulting. jimtc@att.net*

NATIONAL SEED PROFESSIONAL TURF PRODUCTS

Specializing in Quality Grass Seed
To Meet All Your
Turf Performance Standards

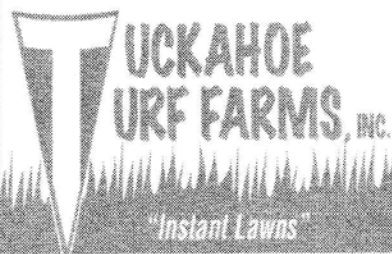
Call For a Catalog

1-800-828-5856

Carrying a full line of quality mixtures
especially formulated for:

SPORTS & ATHLETIC FIELDS
LOW MAINTENANCE AREAS
GENERAL GROUNDS
GOLF, LAWN, RECLAMATION

Technical Agronomic Support
And Custom Blending Available



401 Myrtle Ave.
PO Box 148
Hammonton, NJ
08037

"Instant Lawns" www.ttfarms.com

- HIGH QUALITY New Jersey Certified Bluegrass & Fescue Sod
- GROWN ON HAMMONTON sandy, loam-type soil (89-92% sand)
- 700-acre farm allows deliveries to the Northeastern states or wherever sand sod is needed for specialized modern athletic fields
- LABOR-**SAVING BIG ROLLS**, please call for custom installation prices
- THICK CUT SOD with as much as 1 3/4" soil for repair job

609-561-7184 **800-222-0591** Fax 609-561-0296

DID YOU KNOW?

Aerating your athletic fields in September can benefit the health and vigor of the turf by optimizing nutrient utilization through increased oxygen availability and decreased potential for moisture saturation in the root zone.

INVOICE

October 2, 2003 Work Shop (SEE PAGE 1)

Rutgers Snyder Farm, Pittstown, NJ
11am to 3:30pm

Member - \$15.00

Non-Member - \$25

Return this form with voucher or check to:

SFMANJ, P.O. Box 370, Annandale, NJ 07853

Questions call: (908) 730-7770

Names: _____

Organization: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone/Fax: _____

Email: _____

Members: _____ x \$15.00 = \$ _____

Non-Members: _____ x \$15.00 = \$ _____

TOTAL DUE: \$ _____

SFMANJ TAX ID# 22-3707662

OFFICE USE ONLY

Paid:\$

Check#

Total attending#

Date:



Storr Tractor Company

Distributors of Quality Turf Care Equipment



Count on it.

Representing the Equipment that gives Athletes
*the playing surfaces they need to achieve their
Personal Best.*

3191 Route 22 • Somerville, New Jersey 08876
908-722-9830



SkyBit E-Weather[®] Service

Site-Specific Weather Data for the Sports Turf Industry

The TurfSite professional product suite provides you with a broad set of tools for sports turf management.

- Weather Forecasts
- Pest Predictions
- Frost Warnings
- Degree Day
- Irrigation
- Custom Data Sets

Easy-to-use products are delivered daily directly to your fax or e-mail.

No equipment purchase

No contract to sign

For more information, visit www.skybit.com or call toll-free 800-454-2266.

Ask about our two-week **free** trial on all products.

“Weather and Disease”

**DR. Joe Russo & Dennis Watkins*

Wet weather has dominated most of the northeastern United States for the better part of 2003. This excess of seasonal moisture has brought disease control to the forefront of turfgrass management. In this column, we will discuss the relation between weather and disease and the implications of this association for a sports field manager.

Disease can be defined as any abnormality of an organism. Infectious diseases are the result of causal agents. For plant diseases, these agents include bacteria, fungi, viruses, and nematodes. While most agents are nearly ubiquitous in the soil and air, they become infectious during certain host □urfgrass□al (life) stages and environmental conditions. The time until infection depends on agent type and number, plant-host sites, and the prevailing heat and moisture conditions. For example, one kind of agent, airborne fungal spores, may take more than a day to reach an infectious state after contacting a host under moist conditions and cool temperatures (between 40 to 50 °F). The same spores on the same plant may take just hours to become infectious under moist conditions and warm temperatures (between 65 to 75 °F). Another kind of agent, soilborne fungi, may need a long incubation period of consistently warm temperatures before

becoming active. The severity of a disease depends on several factors, such as the period of favorable environmental conditions, the health of the host, the degree of genetic resistance, and cleanliness of plant material.

Since heat and moisture are key conditions for infection, a warm and wet spring and summer can become particularly challenging for a sports field manager. A manager must not only pick the right method of control for a particular disease, but must also apply that control in a timely manner. An application that is either too early or too late is a wasted effort both in time and money. Even worse, a mistimed application allows a disease to get established, making later prevention even more difficult and costly. Given the number of information tools available to a manager today, there is no excuse to have disease-inflicted losses. A manager, who has the experience and is willing to put in the effort, can locally observe weather variables, such as temperature, relative humidity, precipitation, and leaf wetness, to anticipate a disease event and ensure the proper timing of a control measure. Another manager, who has neither the time nor inclination to monitor pests, can rely on public or private services for the prediction of disease episodes. These services typically use weather data as input into predictive models. One of the most effective models presently in use forecasts the incidence and severity of Gray Leaf Spot – the single most threatening problem

Continued on next page

Continued from page 14 "Weather".....

for fields with perennial ryegrass. Knowing the potential for an outbreak is essential for controlling this disease in turf. Using the predictive model to time the right fungicide application has given managers the effective margin of control to manage this disease. ▲

*Dr. Joe Russo is president of ZedX, Inc., an information technology company located in Bellefonte, PA. Dennis Watkins is a turfgrass agronomist located in Lords Valley, PA.

Answers to Test Your Understanding from "Before You Can Mow it," page 7:

1. PH, air, soil moisture, nutrient availability, height of cut, intensity of use
2. 1/3
3. Aeration
4. Macro
5. Micro
6. Large pore space, bulk density
7. Leach
8. Salt index
9. Excessive
10. Alligators

"One Sports Field Manager's Experience"

Developing a Renovation Strategy

by Jim Hermann, CSFM

It was around May of last year when I had the opportunity to be involved in the renovation of three adjacent soccer fields. This opportunity was unique in that we were able to utilize different techniques and products on the different fields with the common objective of achieving a quality stand of turf. By understanding the products and equipment we were using, we hoped to gain optimum results thru different applications and procedures.

As should always be the first objective in any renovation, soil samples were taken and we had both a physical and chemical analysis accomplished on each field. The physical analysis gave us the sand, silt and clay composition or "texture" of the soil. The chemical analysis of the soil provided us with the level of availability of all the major nutrients necessary for the establishment and maintenance of healthy turf. Along with providing us with the current level of availability, the chemical test results gave us recommendations to bring deficient nutrient levels up to optimum.

Our physical analysis reported the soil "texture" to be that of a "sandy loam" with 56% sand, 34% silt and 10% clay. This information was necessary in determining the compatibility of our topdressing material. We wanted a material of the same classification (sandy loam) with at least as much or more sand content.

The first problem we noticed when reviewing the chemical test result was that the soil Ph was reported as 5.5 with a lime recommendation of 150 lbs./1000 sq. ft. Turf grows best at a Ph from 6.0 – 6.7. In addition, the test results recommended that the lime be applied at no more than 50 lbs./ 1000 sq. ft. per application. Subsequently we scheduled the initial application of lime that very week. Lime is very slow to react in the soil and we wanted as much benefit from the lime as possible, prior to seeding. A second application was scheduled to coincide with our renovation around the third week in August. This is considered the optimum time for turf renovations in our area. With ph addressed we moved on to the next priority in our renovation process; evaluation of the balance of the soil test results. Along with the low level of calcium that was addressed with our lime application, our chemical soil analysis also reported phosphorous to be at a low level of availability. Since phosphorous is necessary for the development of a healthy root system, it was imperative to address this deficiency in our renovation process.

Continued on next page.....

YOUR "ONE-STOP SOURCE"
FOR AMERICA'S LEADING
BASEBALL SURFACES & SUPPLIES



THE PROFESSIONAL'S CHOICE
SINCE 1922

USED BY OVER 100 PRO TEAMS,
OVER 600 COLLEGES, PLUS THOUSANDS
OF TOWNS & SCHOOLS WORLDWIDE.
SPECIAL MIXES FOR INFIELDS,
PITCHER'S MOUNDS & HOME PLATE AREAS.

**REGIONAL INFIELD MIXES
AND RED WARNING TRACKS
FOR EVERY STATE & CLIMATE!**

PLUS INFIELD CONDITIONERS
TO IMPROVE EXISTING INFIELDS:

IF TOO HARD AND POORLY DRAINING!

Pro's Choice

THE REDDER, LESS DUSTY, MORE UNIFORM
INFIELD CONDITIONER & DRYING AGENT
"RED" OR "GREY" FOR INFIELDS
"GREEN" FOR TURF

FOR CONSISTENT INFIELD CUSHION
IN WET OR DRY WEATHER!

IF TOO SOFT & DUSTY!

STABILIZER®

FOR FIRM, YET RESILIENT, PLAYING SURFACES

TO QUICKLY DRY INFIELDS!

The Original & Most Absorbent is Now

NEW & IMPROVED GRANULAR

DIAMOND-DRY.



OVER 200 OTHER INFIELD PRODUCTS!

Now in 6 Colors!

FENCEGUARD
Protective Safety Covers
for Chain Link Fence

WALL PADDING • WINDSCREEN • RAIL PADDING
TAMPERS • DRAG MATS • RAKES
HOLLYWOOD® BASES • FIELD MARKING MACHINES
BATTING PRACTICE COVERS • RAIN COVERS
PERMA-MOUND™ PADS • MOUND BRICKS
SAFE "T" MAT™ BATTER'S BOX PADS
TYPAR® & TERRA-BOND® GEOTEXTILES
ON-DECK CIRCLES WITH TEAM LOGOS
PERMANENT FOUL LINES & MUCH MORE!

**FREE INSTRUCTIONAL BROCHURES
DISTRIBUTION CENTERS NATIONWIDE!**

800-247-BEAM

908-637-4191 / FAX 908-637-8421

PARTAC PEAT CORPORATION
KELSEY PARK, GREAT MEADOWS, NJ 07838

"The best infield mix I've ever used."
— GEORGE TOMA

Continued from page 15 "One Sports Field Managers"..

Our test recommendation called for 2 ½ lbs. of phosphorous per 1000 sq. ft. Potassium was above optimum levels in the soil so there was no need to address this nutrient with our initial application of fertilizer.

This is where the process became very interesting to me. I have always had an insatiable need to understand the mode of action of different nitrogen sources and how this affects the health and vigor of the turf. I firmly believe that by understanding and utilizing nitrogen properly you can greatly improve the effectiveness of your fertility program.

I had been in contact with a company that manufactures a UF (urea-formaldehyde) nitrogen product. Blue chip, as it is commonly referred to, is a very slow acting synthetic organic nitrogen source. About 30% of the nitrogen is very slowly water-soluble. The other 70% is water insoluble and is broken down and supplied to the plant thru the microbial action of the soil. Because it is released by the microbial activity of the soil, Blue chip's release pattern somewhat mirrors the growth habits of the turf, releasing more nitrogen during those periods conducive to turf growth such as spring and fall and less nitrogen during drier warmer weather such as summer. Release becomes almost nonexistent thru the winter when soil temperatures fall close to or below freezing. The water insoluble portion of this nitrogen source can take up to 12 months to break down and some say even longer. I have used this product for many years in residential maintenance but have never had the opportunity to observe the results of its use in athletic field fertility programs.

The manufacturer agreed to provide us with enough product to cover the initial nitrogen needs of one soccer field and we in turn agreed to document our procedures and take pictures along the way.

In order to properly calculate the application rate I called on an agronomist who serves as consultant for the fertilizer manufacturer. He recommended a rate of 3.8 lbs. nitrogen per 1000 sq. ft. applied at the time of renovation. The product is a 38-0-0 which means we had to apply 10 lb. of product per 1000 sq. ft. to supply 3.8 lbs. of nitrogen.

At first, this might seem an extreme amount of nitrogen to apply at any one time and to most it would seem it goes against the standard recommendation; do not apply more than 1 lb. nitrogen with any one application. Again, lets look at the product. It is about 30% very slowly water-soluble. In addition, it has a very low salt index. This means about 1 ¼ lb. of the nitrogen is initially available and the product has literally no burn potential. The balance of the nitrogen (70%) will break down over the next year or so.

Another important consideration when applying this amount of product would be that we aggressively aerate the field as a part of the process. This would not only help to incorporate the fertilizer into the soil, but also help to incorporate the seed and lime as well. I would not contemplate applying this amount of nitrogen without aggressive aeration or other method of soil tillage.

As I stated earlier, in order to satisfy the soil test recommendations all three fields were in need of 2 ½ pounds of phosphorous per 1000 sq. ft. Since we had chosen blue chip as our nitrogen source on this field, we needed a source of phosphorous that would not supply us with any nitrogen. We chose triple superphosphate as that source. This product has an analysis of 0-46-0 which means we had to apply approximately 5½ lbs. of material per 1000 sq.ft. to supply 2½ lbs. of "available" phosphorous.

Now that we had a fertility strategy for the one field we still needed to come up with a strategy for the other two fields. We decided on a more traditional approach to the fertility program for these two fields. We needed a fertilizer high in phosphorous but we didn't need potassium because it was already off the board (above optimum) according to our soil test. Our test results recommended a fertilizer with a ratio of 1-3-0. We chose diammonium phosphate (DAP) as our "starter" fertilizer. Diammonium phosphate has an analysis of 18-46-0, which closely follows our recommendation for a 1-3-0 ratio. Applied at the rate of 5½ lbs. product per 1000 sq. ft., we would be supplying about 2 ½ pounds of phosphorous along with about 1 pound of nitrogen. This fertilizer would not only supply the needs of the germinating seed but would also stimulate the existing turf on the fields.

With all the nitrogen from the 18-46-0 being fast release, we felt we were going to need another application of nitrogen approximately 4 – 6 weeks after our intended renovation at the end of August. We wanted to continue to promote root development and lateral growth in the new seedlings up until turf dormancy. This gave us a tentative time frame of around the first part of October for a second application of nitrogen on these two fields. Because we anticipated cool wet weather thru the end of the growing season, we were looking for a nitrogen source with good low temperature response and dependable release characteristics. We wanted a slow steady supply of nitrogen without the risk of over stimulation, which could potentially be caused by a fast release or less dependable slow release form of nitrogen. We chose Isobutylidene Diurea (IBDU) as the nitrogen source. We felt it would give us the slow steady release pattern we were looking for thru the end of the growing season and it was a stable enough product to carry a portion of it's nitrogen over the winter and give us good response in the spring.

After deciding on the source of nitrogen, we needed to decide on the rate. Due to the slow initial response and the long residual supply of nitrogen provided with IBDU we decided on a rate of 2 lbs. nitrogen per 1000 sq. ft. IBDU has an analysis of 31-0-0. We therefore needed to apply about 6½ lbs. product per 1000 sq. ft. to supply a total of 2 lbs. nitrogen.

The next two decisions necessary in the renovation process were the choice of topdressing material and the rate of application.

Continued on next page.....

Continued from page 16 "One Sports Field Managers"..

We chose a product that combines 60% mushroom compost with 40% sandy loam topsoil. The soil texture classification of this material still conformed to a sandy loam, which made it compatible with our soil. The mushroom compost adds organic matter and available calcium to the blend along with organic nitrogen and some phosphorous and potassium. Although we did have a chemical analysis completed on the material, in hindsight I wish a test had been done on this material to determine the fertilizer affect we were gaining from it. This unknown factor continues to bother me. It should have been accounted for in our fertility program. We did however anticipate some adjustment in Ph thru the use of this product. It seems that over the years, mushroom farmers have learned that the higher the Ph of the mushroom compost (to a degree), the more mushrooms they can grow. Mushroom compost is therefore typically full of calcium. For this reason, no more lime will be applied until after another soil test is completed. We chose a rate of 1/4" depth for the topdressing. We have found that with a renovation a 1/4" cover of topdressing improves the germination rate of our seeding. I believe this is caused by improved soil seed contact and improved nutrient availability in close proximity to the seed.

At this point we had developed a program, actually two different programs to address the fertility requirements of our fields. We then needed to develop a plan to cultivate the fields and plant the seed.

Our arsenal of equipment consisted of a slice seeder, aeravator, deep tine core aerator and a top dresser along with the tractor to operate them.

The aeravator is a solid tine aerator with the added benefit of vibration supplied to the tines through PTO power. It is very effective in the heavy textured soils predominant in our area.

Our first course of action was to deep tine core aerate each of the fields to relieve the compaction four to five inches in the soil and bring cores to the surface which when dragged in would help to smooth the surface. Our second objective would be to aeravate the fields with an initial pass to further fracture and cultivate the top two or three inches. We then topdressed with 1/8" topdressing in hopes that the topdressing material would filter into the aeration holes and fractures created by the initial operations. We decided to aeravate the fields a second time to further cultivate the soil and incorporate the topdressing material.

As we started aeravating it became evident that we were dealing with a couple of different factors, which affected the aggressiveness of the aeravation procedure. First, we were still in the midst of a drought and the fields were very dry. Aeravation is much more aggressive in dryer conditions than it would be in a soil with more moisture content. If we had been aeravating for the purpose of a maintenance procedure and not as a procedure incorporated into a renovation, I would have determined the result to be overly aggressive with a great potential to cause damage to the existing turf. Because

we wanted good soil seed contact and there was rain in the forecast, we felt the procedure was safe and effective.

We decided to use the drier than normal conditions and the aggressiveness of the aeravation to our advantage. We chose to apply half the seed with our second aeravation procedure utilizing the attached seed box in hopes of getting a little more even distribution of seed and apply the other half the seed by slice seeding.

The second factor we were dealing with was that there were variations in the amount of existing turf cover on each of the fields. One field in particular had very little existing turf. The second aeravation procedure proved so aggressive that we felt we could apply all the seed and eliminate slice seeding on this field. This decision was also due in part to a strong prediction for rain that very evening and the need to complete the project as quickly as possible.

Because the fields were initially seeded in perennial rye we decided to stay with perennial rye but also wanted to try incorporating Blue grass into the mixture to gain the recuperative ability of Blue grass to rhizome into damaged areas of turf. We decided on a mixture of 70% perennial rye, 30% blue. Although we chose aggressive varieties of blue grass, It is considered a difficult task to introduce blue grass into a predominantly perennial rye field and for this reason a higher percentage of blue grass may have been more effective.

It should be noted at this time that there are very few absolutes in athletic field maintenance. Every decision you make is a judgment call. All you can do is look at the situation from as many angles as possible and draw your conclusions based on your experience and the experience of the professionals around you.

The two remaining fields were slice seeded in addition to the two aeravation passes and then topdressed with the remaining 1/8" of material. That having been done, our renovation process was complete.

As the fields developed after the renovations, the rows of turf created by the slice seeder became very evident on both of the slice-seeded fields. The third field, though not slice seeded had significant and acceptable turf development due to the aggressive cultivation and soil seed contact caused by the aeravator.

The first week in October IBDU was applied to the two fields that did not receive the blue chip nitrogen. Development of all the fields was impressive. There were no differences in their development that could be attributed to the different nitrogen programs. As turf dormancy took over around the end of October I did have some concern for the lush green appearance of the turf and its potential to stimulate snow mold thru the winter.

An evaluation in March did reveal significant snow mold damage, the cause of which could not be blamed solely on high fertility. Snow mold was common throughout the state due to the severity of the winter.

Spring green up was consistent and acceptable throughout all the fields and the turf recuperated from much of the snow mold damage. As the rainy wet weather continued throughout the spring, Red Thread

Continued on next page.....

Continued from page 17 "One Sports Field Managers"..

fungus became the next consideration. Although a light application of a fast acting water soluble nitrogen is recommended to alleviate the symptoms of Red Thread we felt the potential increase in top growth caused by the application was not warranted based on the extent of the Red Thread we observed.

All three fields started to look a little hungry around the end of May and it was agreed that we would apply 1.5 pounds of nitrogen per thousand square feet utilizing methylene urea. This particular product has a small amount of urea for immediate response with approx. 50% being slowly water soluble and the remaining portion being released by the microbial action of the soil similar to the urea- formaldehyde we used for the renovation of the one field. The difference being, methylene urea incorporates a higher percentage of slowly water-soluble nitrogen with a little less water insoluble nitrogen, giving it a faster release pattern than the UF. In contrast methylene urea has a longer residual affect than most of the coated urea products along with a lower salt index. It's a matter of matching the product with the desired response.

There is little if any difference in the quality of each of the fields even though we used different products to accomplish our objectives.

Its now August and the soccer teams are using all three fields. I guess that's job security. ▲

**Jim Hermann is a Certified Sports Field Manager and President of Total Control, Athletic Field Maintenance and Consulting. jimtc@att.net*

"Question & Answer"

by Jim Hermann, CSFM

Question: This year it seems as though we have a bumper crop of crabgrass. What is the right way to deal with this problem?

Fact: Crabgrass is a summer annual that germinates, matures, reseeds itself and dies within the confines of one calendar year. The seeds germinate and small plants emerge in the late spring or early summer after soil temperatures reach or exceed 55 degrees for an extended period of time. The young crabgrass is coarse textured and light green in color. Initially, as an immature plant, crabgrass really doesn't seem too competitive or invasive. As it matures crabgrass has a very prostrate or horizontal growth habit, which interferes with the existence and development of desirable turf. These mature crabgrass plants reseed before dying with the first frost thus setting the scene for next year's generation.

Answer: The correct answer is that there is no single right or correct way to deal with crabgrass. The best answer to this question lies in your ability as a sports field manager to assess your individual turf program and as such the degree to which crabgrass infestation impacts on the objectives of that program.

There are a number of ways to deal with crabgrass control. You can treat in the spring with a preemergent

control product or you can treat in the summer or fall with a selective post-emergent product. You can even treat with a product combining both pre and post-emergent qualities thereby extending the application window of that product in the late spring, early summer. In certain situations a non-selective post-emergent (total kill) application is warranted.

Now, what does all this mean? A 'post' emergent crabgrass control product is a product that controls the crabgrass after it has emerged and is visible within the stand of desirable turf. A 'pre' emergent crabgrass control product is a product that prevents an anticipated infestation of crabgrass by interfering with the seed germination. 'Selective' means that you have discretion on what plants you want controlled based on the label of the product chosen. 'Nonselective' means you have little discretion on what plants are affected by the application. A complete understanding of the label description of any product is required by every applicator prior to the application of that product. It should be understood that most preemergent crabgrass control products also interfere with the germination and establishment of desirable turf seed.

As a sports field manager, my main objective is to maintain my fields in a 'safe' and 'playable' condition. If I can't shut a field down and crabgrass is the only existing turf cover, it would be my decision to leave it. Once this decision is made, a long-term plan would need to be considered in order to correct the problem in the future. This could include a late fall seeding after the cool weather has killed or severely compromised the development and competition of existing crabgrass. Slice seeding is recommended for this procedure. A follow-up application the following season in the late spring of a crabgrass control product would be indicated. This application should be made after the new seeding has emerged and established in the spring.

If in late summer, it is decided that there is a significant amount of desirable turf within an infestation of crabgrass, the crabgrass could be treated selectively with a post emergent product. In this situation overseeding of desirable turf could be accomplished earlier in the fall while still being effective due to the earlier elimination of competition caused by the crabgrass. The crabgrass control product label should be referenced to insure that seeding is not accomplished too soon after the crabgrass control application.

If the field can be shut down for the fall season, the following options exist.

1. If desirable turf is non-existent or at best not worth considering, a non-selective herbicide could be applied to kill all existing vegetation and overseeding accomplished after the label recommended wait time.
2. If there is a significant amount of desirable turf, a selective post emergent product could be applied to eliminate the crabgrass and seeding could be accomplished after the label recommended wait time has elapsed.

Continued on next page.....

Continued from page 18 "Question & Answer"...

The decision would then need to be made on how to deal with the crabgrass problem the following season. Crabgrass thrives in compacted soil of low fertility and hot dry weather. Providing an environment conducive to an aggressive, healthy turf is the most environmentally conscientious approach to any and all pest control. This environment would include but not be limited to proper soil pH, adequate soil aeration, adequate soil moisture and adequate nutrient availability. An important outside influence contributing to the control of crabgrass is proper mowing management. ▲

"Sports Turf News"

TURF-TEC DIGEST -Volume 9 Number 2 – Aug. 2003

*By: John Mascaro

STMA - New Logo for STMA.

The National Sports Turf Managers Association has a new logo for the association. They felt the logo is easier to read and the cleanliness makes it look more professional. (Photo on Website only! See below) Start Planning now for the STMA National Conference and show.

The STMA National conference and show will be in San Diego, CA in January, 2004. The exact dates for the STMA's 15th Annual Conference & Exhibition are January 21 - 25, 2004. For

updates go to the STMA website at <http://www.sportsturfmanager.com/>

New Tagline for STMA

"STMA: Experts on the Field, Partners in the Game" The tagline takes an everyday phrase "an expert in the field" and plays upon it to get across that STMA members are the absolute "experts" both in the field of sports turf and on the playing field and field management issues. "Partners in the Game" portrays the professionalism, and positions. STMA members on equal footing with others in the organization or athletic department. The tagline is a catchy, easily recognizable phrase to be used for marketing purposes. Public Relations Positioning Statement "The sports industry can count on the healthiest and safest playing fields because sports turf managers are unequaled in expertise and professionalism."

STMA Members Forum.

There is a new feature on the Sports Turf Managers website called the "Members Forum". This question and answer forum is for members of the STMA National and is an excellent way to get questions answered and also find out what works for other sports turf managers. To find the forum, go to the website at <http://www.sportsturfmanager.com> and then click the tab in the upper right corner to logon. Once you have logged on you should go to # 2 in the STMA Top Five called "Member Forum Q & A".▲

* John Mascaro is editor of Turf-Tec Digest TO SEE THE REST OF THIS NEWSLETTER ONLINE WITH PICTURES > <http://www.turf-tec.com/aug03.htm>

What's New?
covermaster.com
The web's most comprehensive site of protective sports surface covers.



Baseball infield covers come in standard and custom sizes



Full size covers for football and soccer are readily available

Ultimate Field Cover Protection

Manufactured in North America, COVERMASTER® covers are made from the widest available materials to limit the number of seams and can be custom designed to your requirements. We also offer the widest range of colors in the industry.

With more than three decades of experience and our commitment to achieve complete customer satisfaction, COVERMASTER® field covers are recommended by more groundskeepers than any other.

Ultimate Field Cover Handling

The **TARP MACHINE™** (left photo). Attached to any 14 HP tractor equipped with a PTO, it rolls the cover on and off the field in a minimum of time.

The **TARPMATE™** (right photo) stores any size cover. Strong and lightweight, the 28" diameter plastic roller is complete with safety end caps and is available in three standard lengths.



FREE VIDEO

COVERMASTER

COVERMASTER

COVERMASTER

MASTERS IN THE ART OF SPORTS SURFACE COVERS

CALL TOLL FREE
1-800-387-5808

www.covermaster.com
E-MAIL: info@covermaster.com

COVERMASTER INC., 100 WESTMORE DR. 11-D. REXDALE, ON, M9V 5C3 TEL 416-745-1811 FAX 416-742-6837

WHAT OTHERS SAY...

Very good... highly recommended...
Dunham Wright, Facilities Supervisor,
Northeast Louisiana Univ, Monroe, LA

Experience with Covermaster has been outstanding... appreciate special attention...
Ray Tanner, Head Baseball Coach,
Univ. of South Carolina, Columbia, SC

Excellent quality with competitive prices...
Johnson Bowie, Associate AD,
Drexel University, Philadelphia, PA

Delivered in perfect condition... best product I looked at...
John Milardo, Supt. of Parks,
City of Middletown, Middletown, CT

From 1-10, your company is a 10...
Jim Simmons, Facility Mgr.,
Buckingham Little League, Ft. Myers, FL

Great service... the best...
Chip Baker, Asst. Baseball Coach
Florida State University, Tallahassee, FL

Covermaster takes extra step to meet customer's exact needs...
Gary Mayse, Asst. Gen. Mgr.,
Wisconsin Timber Rattlers, Appleton, WI

Response time was great... recommended by groundskeeper of St. Louis Cardinals...
David Hooplin, Alton American Legion
Baseball, Alton, IL

©2003, Covermaster Inc.

MEMBER





STANDARD MAIL
 U.S POSTAGE PAID
 LEBANON, NJ 08833
 PERMIT No. 13

P.O Box 370
 Annandale, NJ 08801

Or Current Occupant

Bradley Park
 Rutgers University, Dept. of Plant
 Bio/Pathology
 59 Dudley Road
 New Brunswick, NJ 08901



'2003 Proud Sponsor Directory'

WILFRED MAC DONALD, INC

Turf Equipment Specialists
 Bernie White – Sales Representative
 19 Central Blvd., S. Hackensack, NJ 07606
 (888) 831-0891 ex 114, Fax (201) 931-1730
 sales@wilfredmacdonald.com

SPORTS TURF SYSTEMS BY SAUL BROS.

Drill & Fill, Deep Tine Aeration
 Jerry Saul & Danny Saul
 P.O Box 299
 Livingston, NJ 07039
 Ph. (973) 983-1141 Fax (973) 983-8845

MENDHAM GARDEN CENTER

Turf Products
 Mendham – (908) 543-4178
 Chester – (908) 879-5020
 Annandale – (908) 730-9008

STORR TRACTOR COMPANY

Turf, Irrigation and Ballfield Equipment
 3191 Highway 22
 Somerville, NJ 08876
 (908) 722-9830, Fax (908) 722-9847

US ATHLETIC FIELDS

Sports Field Maintenance, Renovation & Construction
 John McKnight and Jim Gilligan
 P.O Box 38 – Skillman, New Jersey 08558
 (609) 466-2846, fax (609) 466-1808
 john@usathleticfields.com dslb@ptdprolog.net

GSI CONSULTANTS – TURFCON DIV.

Dr. Henry Indyk, Sports Field Consultant
 Ph. (732) 247-8026

**To become a Proud Sponsor call 908-730-7770.
 \$150 FOR ONE YEAR**