

# STMA Conference Speakers' List

areas, water use is a politically-charged issue involving restrictions or bans. This workshop will delve into the basic principles of irrigation and wise water use. You'll explore water auditing as a method to measure, evaluate, and improve the efficiency of the water delivery system for your fields.

## The Whole Facility Picture

Tim Moore, CSFM, M-NCPPC;  
Boyd Montgomery, CSFM,  
Sylvania Recreation

What you'll hear: Facility responsibilities can cover a wide range of area other than the athletic fields. This session will focus on those other areas, with examination of the various management aspects of everything from the parking lot to the rest rooms to the landscaping. If you are currently a facility manager, or if you aspire to become a facility manager, this session is for you.

**Saturday, Jan. 19**

**CONCURRENT SESSION -**  
8:00 - 10:15 a.m.

Each of the three topics in this set of concurrent sessions will run for 45 minutes.

## THE BASICS TRACK

### Fertilization

Dr. Mike Goatley, Mississippi  
State University

What you'll hear: Plants respond to fertilization in many ways, some good and some bad. This session will discuss the appropriate selection of nutrients and fertilizer sources to best meet the field needs at a particular time. Attendees will consider the choices they have in turf nutrition as they apply to maximizing turf appearance, stimulating regrowth potential, enhancing wear tolerance, and improving cold and heat tolerance, among others things.

### How Turf Uses Water

Dr. Dale Devitt, University of  
Nevada/Las Vegas

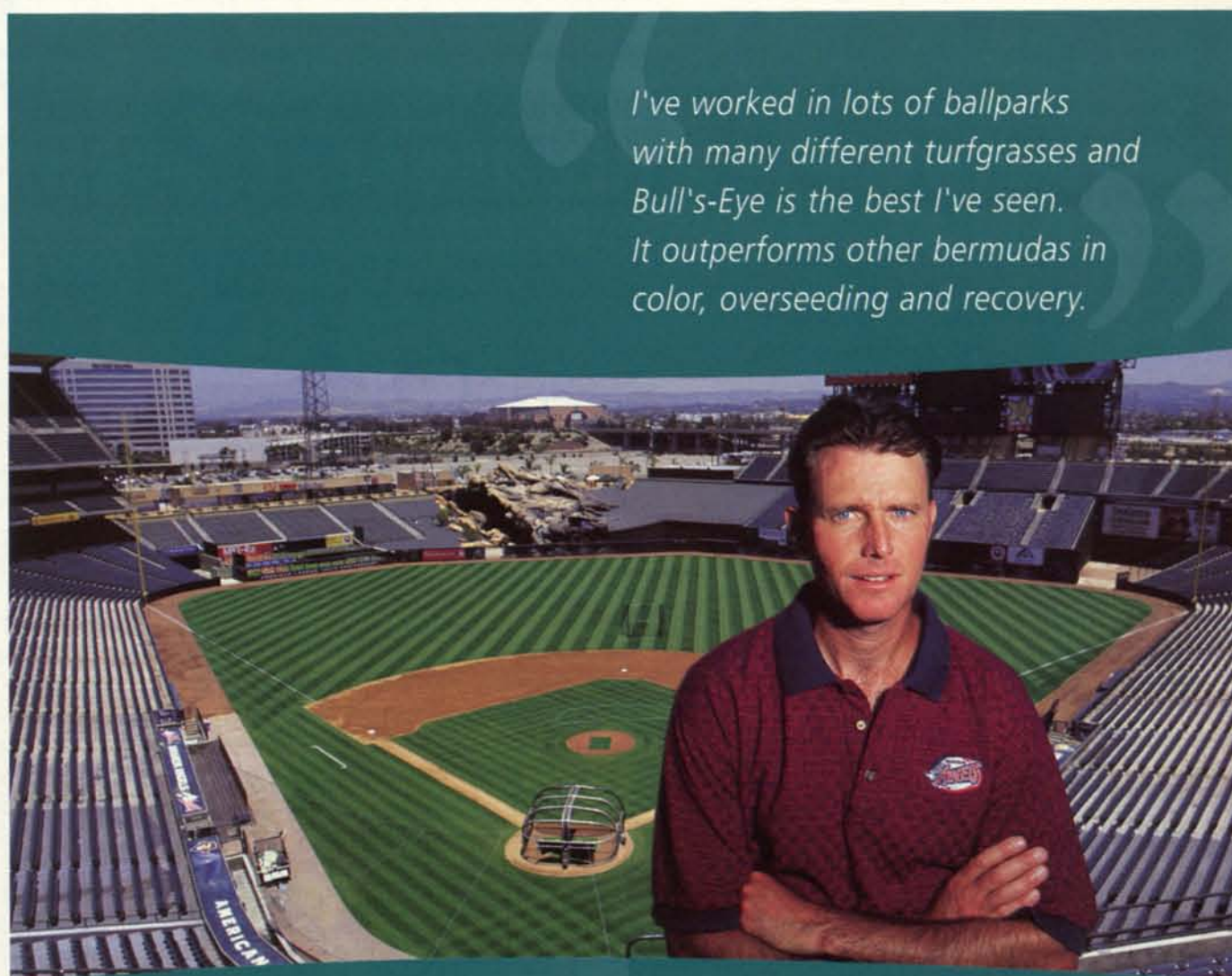
What you'll hear: Turfgrasses are living entities that require water for survival. This session will cover the basics of how the water

is processed and used by the turfgrass plant. You'll gain a better understanding of the efficient and effective use of this valuable resource.

### Field Painting

Mike Hebrard, Athletic Field Design

What you'll hear: Field painting is both an art and a science. It impacts the physiological aspects of turfgrass management as well as the time, labor and materials resources of the program. This session will cover the basic when, where, why and how of field painting.



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—Barney Lopas  
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# STMA Conference Speakers' List

## THE TECHNICAL TRACK

### Designing & Maintaining High Sand Profile Rootzones for Stability & Playability

Dr. Andy McNitt, Penn State University

What you'll hear: Athletes want to play on a surface that is smooth, uniform and provides solid footing so they can safely execute all the moves, twists and turns of their sport putting total focus on the game. This session will explore how the design and maintenance aspects of high sand profile rootzones are related and how manipulation of various maintenance techniques impacts the stability and playability of the field.

### Growing Turf in Low Light Stadium Conditions

Grant Trenbeath, Arizona Diamondbacks

What you'll hear: It's tough to grow turf in limited light conditions. This session will detail the affects of low light levels on turfgrass performance and explore the options available to counteract the negatives and promote turf growth and health.

### How to Buy Sod

Steve Cockerham, University of California/Riverside

What you'll hear: All sod is not created equal; no one sod fits all purposes. This session will discuss the various areas to consider when purchasing sod and give guidelines in matching the sod selection to field needs.

## TRICKS OF THE TRADE

### Handling College/University Multiple-Use Fields

Eric Adkins, CSFM, Northwestern University

What you'll hear: Football may be the focus of attention on game day, then become the site for a major concert or graduation ceremonies. This session will share ideas on making it all work together to keep top field conditions and satisfy the total package of facility needs.

### Handling the "Do Everything" Field

Connie Rudolph, CSFM, Midway Stadium

What you'll hear: This session will discuss the impact of having multiple sports and events on one playing surface. Included will be ideas and suggestions on how to prepare for and recover from the damage that can occur.

### Soccer, Soccer & More Soccer

Kevin Meredith, Soccer Hall of Fame

What you'll hear: Soccer only fields don't guarantee a lower use level than two sport, or multi-use fields. This session will share suggestions on how to accommodate multiple user groups with multiple skill levels and permit as much field use as possible while retaining the quality, safety and playability of the fields.

## PROFESSIONAL DEVELOPMENT

### Meeting the Media

Susan Snyder, Las Vegas Sun

What you'll hear: You are on stage and on the spot when the media appear with tape recorders, cameras and video recorders. This session will help prepare you for meeting the media and working with media personnel to deliver an accurate, positive image of your fields, facility, profession and yourself, in both every day and crisis situations.

### Tracking Costs on Field Contact Hours

Bill Whirly, City of Fort Collins

What you'll hear: Costs are involved every time someone steps on your fields. This session will explore methods to gain an understanding of the potential costs involved and possible methods to monitor and record those costs in terms of field contact hours.

### Management on a Limited Budget

Mike Andresen, CSFM, Iowa State University

What you'll hear: The athletic maintenance budget at Iowa State University spirals down as the expectations and commitments have climbed. This scenario is no different than scores of other situations around the country. This presentation will walk through how ISU identified the challenges, instituted program changes, and developed new initiatives in order to get lean and mean. Communication and commitment are the keys to making any program work, especially when your back gets pushed to the wall. You'll see how one University program made the changes.

## GENERAL SESSION

10:30-Noon

### Maximizing Your Potential

Dr. Bree Hayes, The Hayes Group

What you'll hear: This seminar is designed to help participants present their best professional selves. Expect to learn how to listen more effectively, express yourself clearly, and ask for what you want. It will also touch upon ways to manage time more effectively in the demanding world of turf management and to take the necessary risks that will help you attain your goals and live a more fulfilling life. Expect a highly interactive and self-examining experience.

1:45-4:00 PM

### ROUND TABLE DISCUSSIONS

Each topic will be repeated three times for forty minutes at a time with a maximum of five minutes move time in between. Participants may choose the topics they wish to discuss, with a three-topic limit. Each discussion will be attendee driven based on the topics that are raised by the partici-

pants in each of the groups within their forty-minute session.

### Cool-Season Turf Overseeding

Troy Smith, CSFM, Denver Broncos

What you'll discuss: Participants will share their ideas and their successes and failures (and what they've learned from them) in managing cool-season turf overseeding.

### Warm-Season Turf Overseeding

Tom McAfee, Nelson W. Wolfe Municipal Stadium

What you'll discuss: Participants will share their ideas and their successes and failures (and what they've learned from them) in managing warm-season turf overseeding.

### The Certified Sports Field Manager Program

Dr. Tony Koski, Colorado State University; Mary Owen, University of Massachusetts/Extension

What you'll discuss: Participants will share in a discussion of the CSFM program, how to prepare for the testing process, what it means to be certified, and how professionalism will help the individual, the STMA, and the sports turf management profession.

### Managing Football Fields

Bob Campbell, CSFM, University of Tennessee

What you'll discuss: Discussion is open to the full range of football field management, from off-season preparations to game day situations and end-of-season wrap-up. You'll join your peers in asking questions and sharing ideas on managing football fields.

### Managing Baseball Fields

Mark Razum, Colorado Rockies

What you'll discuss: Discussion is open to the full range of baseball field management, from off-season preparations to game day situations and end-of-season wrap-up. You'll join your peers in asking questions and sharing ideas on managing baseball fields.

### Managing Soccer Fields

Kevin Meredith, National Soccer Hall of Fame

What you'll discuss: Discussion is open to the full range of soccer field management, from off-season preparations to game day situations and end-of-season wrap-up. You'll join your peers in asking questions and sharing ideas on managing soccer fields.

### Managing Multi-Use Sports Complexes

Mike Trigg, CSFM, Waukegan Park District

What you'll discuss: Discussion is open to the full range of multi-use field management, from off-season preparations to game day situations and end-of-season wrap-up. You'll join your peers in asking questions and sharing ideas on managing multi-use fields.



## STMA Conference Speakers' List

### Managing Volunteer Groups

**Ken Norkosky, City of Aurora**

What you'll discuss: Participants will share ideas, including past successes and failures, on recruiting volunteers, coordinating and monitoring volunteer efforts. They'll also discuss methods of rewarding those efforts to recognize and reinforce the contributions of the volunteers and develop continuity of, and within, the volunteer programs.

### Water Quality

**Dr. Dale Devitt, University of Nevada/Las Vegas**

What you'll discuss: Participants will discuss water quality problems and share ideas, including past successes and failures, related to solving those problems.

### Managing Field Construction

**Ross Kurcab, CSFM, Invesco Field at Mile High**

What you'll discuss: Participants will focus on the many facets involved in a field construction project and share ideas on the most effective and result-oriented methods of managing them.

### Irrigation Troubleshooting

**Lynda Wightman, Hunter Industries**

What you'll discuss: Participants will share suggestions for effective troubleshooting of irrigation systems and how to react to the problems discovered.

### IPM for Sports Turf

**Dr. John Stier, University of Wisconsin**

What you'll discuss: Participants will raise the problems they have encountered with establishing, monitoring and administering sports field-specific IPM programs and share solutions to those problems and ideas for IPM system improvement.

### Coping with Southwest Conditions

**Bob Morris, UNLV Cooperative Extension**

What you'll discuss: Participants in this discussion will share ideas on moving beyond coping, to gaining control of their field management and maintenance programs in the widely variable southwest conditions by adopting

the proactive rather than reactive approach.

### Keeping Your Head When Changing Hats

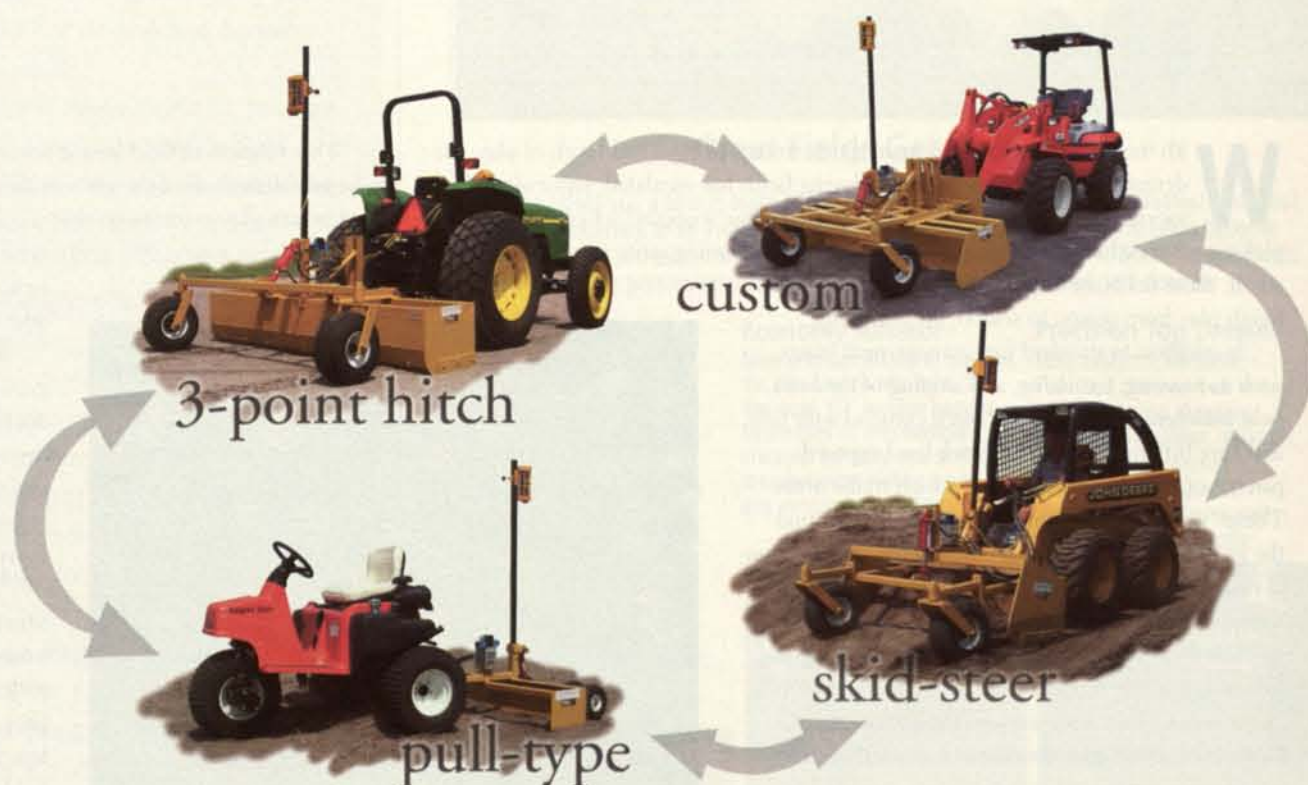
**George Trivett, Granite Falls Middle School**

What you'll discuss: With tight budgets and low staffing levels, it's a given that the sports turf man-

ager will fill many different roles in the field management, maintenance and field-use decision processes and in coordinating those programs. Participants will share their ideas and insight into staying cool, calm and collected while filling these varying roles.

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# Rotational field worth taking a look

Unique design reduces wear and tear,  
improves playability and safety

BY KIMBERLY SAUNDERS

**W**ith the growing interest in team sports among all ages and levels of play, the demand for time on traditional playing fields has escalated, particularly for soccer. Daily team practices, eight-to-ten game weekend schedules, and pick-up games when the fields are "not in use" are becoming quite common. As a result, these fields are exposed to an abundance of tough play from season to season, all year long.

In addition to standard turf management issues such as mowing, fertilizing, and striping of the lines, field maintenance crews must often contend with torn and bare turf areas, holes, and rock-hard exposed patches of clay that develop in the high traffic areas. These "wear zones" are most apparent in or around the goalkeepers' boxes and on the sidelines of traditional rectangular fields. This includes soccer, lacrosse, rugby, and field hockey fields.

The areas between the 20-yard line and the goal line on a practice football field also tend to develop "wear zones." Rain only worsens the problem. Combined, these poor conditions can result in some very unpleasant playing environments, canceled or rescheduled games, or physical injuries to players.

Remedying these problems to maintain a competitive playing field is costly and time consuming, as *Sportsturf* know. Necessary repairs, both during and following seasonal play, are often short-lived. Immature or new grass is inevitably trampled and worn out before it reaches a mature state sufficient to fill in the bare areas.

## New idea

Bob Steinhaus, president of Pioneer Fields, Pittsburgh, and fellow founder Matthew Butch have come up with a practical solution for preserving natural turf fields that requires less maintenance and provides for safer, year-round play.

"We call it the Rotational Athletic Field. The design incorporates a rectangular athletic playing field fitted within a substantially circular turf area. The uniquely graded circular area can essentially be scaled to fit any size rectangular playing field, traditional or nontraditional, with some buffer space," explains Steinhaus. "The playing field rotates at select times throughout the season of play to limit the amount of play in high traffic areas or to avoid damaged or unsafe turf. The rotation schedule can range from daily, which may only be necessary in certain instances, such as following a rough game in heavy rains, to just three times a year which would be practical for seasonal play and seasonal turf repairs," he says.

"This rotation of field layout not only allows for the newly repaired areas of turf to be established off of the current field of play but, more importantly, to be developed before play resumes on that section of field. When rotated accordingly throughout the playing season, the major wear zones on a field are reduced in severity and new, lush turf areas can be quickly established," adds Butch.

Because it takes approximately 10 weeks to grow turf to a mature, playable stage, such repairs are typically performed during the off-season. Using the rotational athletic field design allows bare spots and torn turf areas to be almost completely repaired, resulting in a practically new field at every rotation.

"To be able to adjust where the field of play is situated without physically moving the field is truly innovative," says Mark Dargy, an irrigation specialist with E.H. Griffith, a major Toro distributor. "Most people agree that maintenance is the biggest problem with natural turf fields. The rotational athletic field concept not only saves time and money in the short term on maintenance, but potentially extends the playing life of every field."

Mike DiJirolanio, a sales representative with United Horticultural Supply, agrees. "A rotational athletic field certainly improves playability. I can see it also improving safety by decreasing the possibility of injuries to athletes due to worn turf areas that become rock hard in fair weather then muddy and slippery when it rains," he says.

Incorporating rotation of play also eliminates the need for constructing two or more regular fields in order to gain a fresh field, Steinhaus points out.

"This saves the initial costs in constructing extra fields and it would also reduce the costs in a maintenance budget plan from two or more regular fields to one. The design is especially practical where open field space is limited and, in many circumstances, the possibility exists to adapt the design to an existing traditional field."

The idea is so simple yet extremely practical and that is why Steinhaus and Butch have filed an application with the U.S. Patent Office with full intent on receiving a patent on the concept. Log onto [www.pioneerfields.com](http://www.pioneerfields.com) to learn more.

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*Kimberly Saunders is a professional writer based in Pittsburgh, PA who specializes in health, fitness, and sports topics.*

Circle 127 on Inquiry Card



A natural setting with one field position lined off for play. Obviously only one field would be lined off at any given time.

## Maryland community solves spill/glare concern

**A**n increasingly important issue when lighting an outdoor athletic facility is the need to minimize spill light and glare. As cities and suburbs continue to expand, it's becoming more common that parks and sports fields are placed next to homes, roads, and airports. Along with specific property line concerns, there is the general consideration of the environmental impact associated with lighting a field.

Fairland Regional Park in Silver Spring, MD, required this type of strict light cutoff. "We wanted to specify a fixture that emits the minimum amount of light off site", says Butch Payton, project manager/civil engineer for the Maryland National Capital Park & Planning Commission. The existing soccer and softball fields at Fairland were not lit and had houses located only 200 feet from the soccer field.

"As a whole, communities don't like to have fields lit because there's an influx of people at night and because there's light spilling onto their property," Payton says. "We had to assure the community that the light would not be excessive. Once the lights were installed, there were no complaints. The fixtures met the specifications, with no negative environmental impact."

The commission hired Hubbell Lighting, Inc., Christiansburg, VA. Hubbell's SLS, Sportsliter Solutions Group, used its spill and glare control fixture to reduce light trespass at the park. The fixture is precisely engineered using internal louvers that redirect the light. By achieving maximum light cutoff internally, the SLS spill/glare control fixture also avoids increased dirt depreciation and wind loading problems found with external attached visors.

Heather Johnson, senior application engineer for Hubbell Lighting, designed the lighting layout for Fairland Regional Park. "The internal glare louvers were designed to minimize the brightness of the source of light from a distance," says Johnson. "When you take the brightness away from the light, that makes the neighbors happy. We also wanted to increase the efficiency of the design by putting more light on the field where it's wanted and less light on the surrounding property."



Minimizing spill glare and light is an important issue.



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## Around the Grounds

### My internship with Mark Razum at Coors Field

BY DON FRANTZ

**M**y past two summers have been life changing. I've been fortunate enough to serve as the first-ever intern for Mark Razum, head groundskeeper for Coors Field and the Colorado Rockies. With my interest in sports turf, especially baseball fields, it was a dream internship.

When I was younger, my favorite baseball player was Jose Canseco. I noticed something special about the surface that he played on—it looked perfect to me. I did some homework and discovered a guy named Mark Razum took care of that field.

That was a long time ago, and now I study turf at Colorado State University, while Mark works in at Coors Field in Denver. It took some serious marketing of myself to get the coveted internship, and when I realized that I was the first intern that Mark had ever hired, I felt obligated to not let him down.

In that first season, Raz gave me chances to do the things that go into creating a well-manicured MLB park. He unselfishly discussed his philosophy as head groundskeeper: that the main objective is a safe playing surface, and that aesthetics is not an objective, but rather a byproduct of a proper field. He said consistency is important and the field should be tailored as the team's manager dictates.

"Leonardo da Vinci used all of his senses in creating his art," Raz said once while I was doing the soil samples. He's right. This job is different everyday, and being aware of what's around you, from the weather that's building, to what birds are hanging around, and the smell of the soil helps in seeing the whole picture.

Last year we replaced the turf at Coors Field. This was a priceless opportunity for me to see how sod is stripped, the field laser leveled, and then help lay the big-roll sod. Midway through we had to order more sod and another crew member and I had to estimate how many square feet were needed. We estimated perfectly; just



one example of how much trust Raz put in me and the rest of his crew.

#### Sunshine on his shoulders

Though the Rockies were expecting to have a great year in 2001, it wasn't to be, which is hard on the grounds crew, their biggest fans. But this summer's internship showed me the management part of the job, everything from budgeting, fertilizer applications (my favorite thing to do along with aerating), ordering products, and personnel management.

My main responsibility was the care and management of the sod farm (nursery) outside of the stadium which gave me a chance to have my own field and it allowed me to do a little turf research (secretly of course). I also observed how groundskeeper interacts with his employees.

So all you sports turf managers, don't be afraid to hire today's turf students, and be willing to share your knowledge and experience with them. We come with a desire that you might wish all employees had and we are the professional groundskeepers of tomorrow. I am grateful for the knowledge that Mark Razum has shared so graciously with me over the past 2 years, and I look forward to representing the sports turf industry proudly in the future.

*Don Frantz is a turf management student at Colorado State University in Ft Collins.*



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Promats, Inc., says its new Hexagonal Post Padding solves this problem immediately because the vinyl completely encases the foam, and the company says virtually any diameter post or pole can be protected. This hexagonal approach allows you to apply vinyl enamel or adhesive-backed graphic more easily.

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# The Broad Benefits of Biostimulants

BY STEPHEN MIRANDA

Some people are a tough sell. They don't readily accept new products into their programs. For every active ingredient that touches their fields, they want to see extensive studies and proven results. If they don't have any biostimulant/soil amendment products in their programs, they might be surprised to find that these products—including kelp extracts, beneficial soil bacteria and humus as well as composted animal and plant materials—are among the most studied, data-extensive materials available for turf health management.

A biostimulant/soil amendment is a class of soil- and plant-growth-enhancing products that can:

- ➔ Enhance root and shoot development.
- ➔ Improve soil texture and structure.
- ➔ Increase the availability of macro- and micronutrients.
- ➔ Improve a plant's ability to recover from disease and insect damage.
- ➔ Enhance a plant's resistance to environmental stresses, such as heat, drought and high traffic.
- ➔ Improve the efficiency of any fertility program.
- ➔ Reduce the effects of pH and soil colloidal imbalances.

Biostimulants, in their raw form, have been used agronomically for hundreds of years. Native American Indians worked fish and composted plant and animal materials into their soils. Broken down into their components, these organic substances contain humus, amino acids, proteins, vitamins, carbohydrates and sugars, all materials that enhance the active biomass in the root zone and improve plant vitality. Because the overuse of chemical pesticides and fertilizers can negatively impact soil productivity, horticulturists now look to organic compounds to bring soils back into balance, improve plant health, and reduce the need for chemical intervention.

## Active ingredients

The "bio-active ingredients" common to many biostimulants/soil amendments can be placed in the following categories:

**Humus:** Active humus, extracted from decomposed plant and animal organic matter, is composed largely of three organic acids—humic, ulmic and fulvic. These large organic molecules provide an excellent food source for beneficial soil microorganisms, help to improve soil structure, enhance soil water holding capacity and naturally chelate unavailable micronutrients.

**Kelp Extracts:** Extracts of North Atlantic kelp are excellent sources of plant growth hormones, including gibberellins, cytokinins, auxins, manitols, to name a

few. These compounds affect turfgrass by promoting cell division and elongation, resulting in improved root depth, mass and density, thus increasing the plant's nutrient and water absorption capabilities.

**Beneficial Soil Microorganisms:** Naturally occurring soil microorganisms are nature's fertilizer producers. Nitrogen-fixing bacteria make atmospheric nitrogen available to the plant. Certain soil and rhizosphere bacteria produce enzymes that solubilize phosphorus and potassium from insoluble mineral sources. Other species produce a variety of chemicals, such as the plant growth hormones mentioned above that stimulate root and shoot growth. The numbers of bacteria species and their various roles are vast, but they provide multiple benefits to plant growth, overall soil productivity and disease suppression.

**"Native American Indians worked fish and composted plant and animal materials into their soils."**

**Intermediate Metabolites:** This category includes carbohydrates, peptides, simple and complex sugars, amino acids, lignin, organic mineral chelates and cellulose fiber. Derived from naturally fermented plant and animal solubles, these ingredients can provide an immediate source of energy for plants and soil microbes, help break up soil compaction and improve the soil's cation exchange capacity.

## Optimized health and vigor

Biostimulant/soil amendment products can be perceived to be just another cost added to an already tight maintenance budget. One must realize that many of the variables that affect a plant's survivability lie below ground in the root system and surrounding soil. Sports turf, above all other turfgrasses, bears the brunt of high traffic. Turfgrass survivability is maximized anytime the entire root system and productivity of the surrounding soil can be enhanced. Biostimulants can be highly cost effective because they help reduce other costs. Water costs can be lowered as soils improve and become more porous. Fertilizer inputs might also be reduced as root systems become healthier and can absorb more nutrients.

Biostimulants/soil amendments, however, should never be considered as replacements for sound fertility and disease-management programs. Biostimulants optimize plant health and vigor, while allowing them to withstand and survive environmental and biological stresses, such as extreme temperatures, drought, traffic or fluctuations in soil fertility. It could be said that biostimulants are the turf managers' "insurance policy," but, in actuality, they are essential elements that show their true worth when something goes wrong.

The benefits biostimulants provide may not always be obvious, because most biostimulants affect belowground systems—the roots and soil ecosystem. Turfgrass managers who regularly use quality biostimulants/soil amendments can expect to see enhanced turf color, a general improve-

ment in turf health and soils that better retain nutrients and moisture. But when the going gets tough, and the fields receive more play, turf managers should see vast improvements in turf wear and the ability of the turf to recover more quickly. When reseeding, biostimulant users should also experience greatly improved germination and faster establishment of new turf.

When looking for a biostimulant/soil amendment product, be sure to carefully read the product labels. Select only the products that clearly state active ingredients, their percentages, and the guaranteed minimum analysis. If there is a bacterial content, make sure the bacterial count or colony-forming units per gallon or pound are listed. Look for a well-rounded product. Biostimulants are still largely available in liquid form, but granular and dry soluble formulations are available. The pre-measured, water-soluble packets can be thrown directly into a spray tank for application.

Turf, soils and operating budgets will benefit if biostimulants are added to a management program. **ST**

*Stephen Miranda is the technology and product development manager of Plant Health Care, Inc.*

# FloraSPORT<sup>TM</sup>

TURF PRODUCTS

## BIOSTIMULANTS FOR COOL AND WARM SEASON GRASSES

FloraSPORT's Foundation and Mainstay are biostimulant nutritional compounds designed to promote health and quality in managed turfgrasses. Because the natures of cool and warm season grasses are different, Foundation and Mainstay accomplish different goals. Foundation is a cool season turf biostimulant designed to promote root mass and leaf quality. Foundation also improves cell division, stress tolerance and recovery, says FloraSPORT.

Mainstay is a warm season turf biostimulant designed to emphasize rooting depth and topical density. Mainstay also provides uniform topical growth as well as increased apical quality and wear tolerance. Both Foundation and Mainstay help turf utilize moisture and nutrients.

901-853-2898

For information, circle 163



### WINTER TURF MAINTENANCE

TyPar® Turf Blankets encourage early germination and green-up and can protect your turf from winterkill, says the company. TyPar is the nonwoven polypropylene fabric with UV inhibitors that help prevent sunshine break-down. The product, which can be custom-sized, comes with a 5-year limited warranty against manufacturing defects and UV degradation.

Blanketing your turf protects against freezing temperatures; air and soil under the blankets can be 3-7 degrees F higher than surrounding, uncovered areas, says TyPar. Also, winter winds' drying out of turf is minimized.

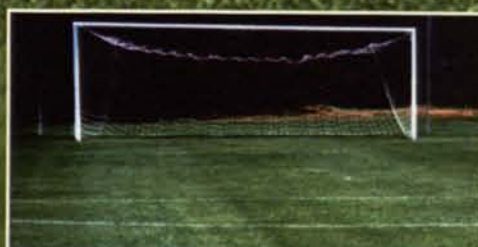
TyPar blankets are porous enough to allow essential nutrients for your turf in, but is a physical barrier to insects wanting to lay eggs in the grass or small animals.

800-455-3392

For information, circle 162

## Team Sports and Recreational Turf Takes a Pounding...Fight Back with FloraSport<sup>TM</sup> Turf Products

*For superior sports and recreational turf, you need superior turf products. FloraSport<sup>TM</sup> Turf Products are specifically formulated to enhance **HEALTH, DENSITY, CONSISTENCY, RE-GROWTH, COLOR, STRESS TOLERANCE, and ROOTING.** Let us help you realize the full potential of your facility's sports turf. We have the know-how and products that can really make a big difference in the health and quality of your turf. Give us a call today.*



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## In & On the Ground



### OVERCOME TRAFFIC, MOWING AND LEACHING PROBLEMS

Focus Turf Biostimulants from PBI/Gordon are designed to overcome challenges created by excessive traffic, intensive mowing and the leaching of nutrients from high sand-content soils-plus the usual

stresses of insect infestations, diseases, temperature extremes and drought. Focus Turf Biostimulants contain precise ratios of fulvic and humic acids, plant hormones from cold water kelp extract, plus chelated iron to maximize the vigor and recovery ability in turfgrass. Originally available as only as sprayable liquid with both foliar and root activity, these precise ratios are now available in a new granular formulation for spreader applications. Focus 15G Turf Biostimulant also contains a guaranteed analysis of 7-0-0 for a boost at the time of application to facilitate root uptake of active components. A "greens grade" granular product, Focus 15G is formulated on Biodac carrier, which allows an extended release of active components into the soil as the recycled paper carrier breaks down over 30 days, leaving no soil residue.

800-821-7925

For information, circle 167



### TURF AERATOR

Classen Manufacturing's TA-19D roll-type turf aerator means low maintenance and dependability, says the company. The unit is a "full time, self-propelled coring machine that can be maneuvered in tight areas."

The user-friendly handle and controls decrease operator fatigue, which increases productivity.

The TA-19D has a 4-hp Honda engine, fits through a 30-in. gate, and features side bumpers to protect rear tires from catching, a removable 40-lb. weight bar, and a front poly drum to ease turn-around when not aerating.

888-252-7710

For information, circle 161

### ORGANIC PROTEIN FERTILIZER AND BIOSTIMULANT

Potent-Sea/Plus, one of Earthworks' "family of liquids" is a combination of cold-processed whole fish hydrolysate, an organic, high nutrient, protein fertilizer and biostimulant made by the enzymatic digestion of fish and Norwegian seaweed. This clean-water seaweed has been shown to contain remarkable levels of minerals-more than 60 trace elements-which are critical for enzyme synthesis, microbial activity and physiological integrity within the plant.

When incorporated into the soil, Potent-Sea/Plus slowly converts organic matter into humus and trace minerals, enhancing soil structure and fertility while providing hormones that are beneficial to plant growth. Under stress conditions, such as drought, the ability of a plant to utilize seaweed extract immediately will help the plant through these difficult times. Potent-Sea/Plus has a multitude of turf and landscape uses and can be safely tank mixed with most pesticides and fertilizers.

800-732-8873

For information, circle 164

Because *their* definition of "playable" will never be the same as yours.

Most sport facilities are often faced with very short periods of time between sport seasons to get their fields "playable".

Typar® Turf Blankets will enhance germination and root growth, allowing for earlier usage and greater survival through seasons.

Call 800-455-3392

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TURF BLANKETS

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