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Oh, the golfer has been pretty good, too.

Year in and year out, Palmer III Perennial Ryegrass has outperformed the competition. It's an annual headliner at the NTEP trials and sworn to by turf managers at major courses and across the south for overseeding. With its dark green color, especially low thatch tendency and high wear tolerance, it has become the centerpiece of any seed program.

Palmer III performs even better when matched with partners such as Prelude III Perennial Ryegrass, which exhibits slower and lower growth for a cleaner cut and good winter hardiness and Phantom Perennial Ryegrass, an improved variety with a medium texture that is extremely wear tolerant but transitions easily. The rich, dark green color of all three make them perfect for use on tees, roughs or fairways, especially in cool season climates and winter overseeding in southern states.

Best of all, they all come with the Signature Pure Seed Tag<sup>™</sup> assurance of quality.

Palmer III and Prelude III are available alone, blended together or under the well-known MarvelGreen Supreme blend name. Phantom is sold alone or in blends as well.









For more information, contact your local UHS representative www.uhsonline.com



# In & On the Ground



#### WHITE MARKING PAINT

Game Day 8090 Ultimate White Athletic Field Marking Paint is a new product by Suntec Paint that is specifically developed with the needs of the sports turf professional in mind. This paint is very highly pigmented with concentrated amounts of titanium dioxide and optical brighteners to give an extremely brilliant white finish. The pigment loading contains no calcium carbonate, eliminating a limestone buildup on the field and drastically reducing settling after mixing. Suntec Paint/352-372-3421 For information, circle 057 or see www.oners.ims.ca/2083-057

#### NEW SOIL AMENDMENT

GAME ON is a new sports field soil conditioner that is vitrified and manufactured in a rotary kiln. The lightweight expanded shale product that absorbs more than 20 percent of its weight in water. Due to its angular shape and pore structure, GAME ON will relieve compaction and significantly increase water infiltration rates. The pores of each particle allow for increased water absorption and water holding capacity.

Hydraulic Press Brick Co./888-593-0395 For information, circle 054 or see www.oners.ims.ca/2083-054





#### NEW STREAMLINER

The Beacon Streamliner 35 features a heavy-duty steel frame with a powder coat finish, and a molded plastic hopper. The retractable handle can collapse to 29 in., short enough to fit inside a standard 30-in. (high) onsite storage box. The hopper has a semi-transparent cover for monitoring material. The variable-flow control lets you adjust the opening to change product flow rate. This control can also change (instantly) between a 2-4 in. line.

Beacon Ballfields/800-747-5985 For information, circle 056 or see www.oners.ims.ca/2083-056



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September 2003

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#### **ELIMINATE PUDDLES**

The Klacon family of soil conditioners combat compaction, enhance turf drainage, promote safe play, provide consistent and truer bounce, as well eliminate puddles and standing water fast. From the makers of Klawog mound and batter's box products. Wessco Inc/330-745-9322 For information, circle 055 or

see www.oners.ims.ca/2083-055

#### RADIANCE REGISTERED IN TX



Radiance algaecide from Aquatrols has been registered in Texas and is now available for sale. Radiance is the next generation in algae prevention in lakes, ponds and fountains. Unlike traditional copper-based products that fall quickly through the water column, Radiance self-disperses from a single application point and remains in suspension to prevent recurring algae blooms.

Aquatrols/800-257-7797 For information, circle 069 or see www.oners.ims.ca/2083-069

#### LINE MARKER

The Fastliner line marking system by Broyhill mounts onto most popular turf utility vehicles and performs at speeds up to 15 mph. The 14-gal. poly tank ensures consistent paint application via a 12-volt diaphragm pump. The exclusive Fastliner non-clogging paint concentrate feeds through an anti-drip nozzle surrounded by a patented spring-loaded marking shoe. Broyhill/800-228-1003, x34

For information, circle 068 or see www.oners.ims.ca/2083-068



#### MARKING MACHINE

The NewRider 1000 is designed for those needing a fast and highly efficient machine to line large, multifield sports facilities. Its large, 30-gal. tank can paint up to 12,000 ft. of 4-in. line. The unit features a 6.5hp OHV engine, five-speed transmission, front or side-mount dual spray heads, hand wand for detail work and garden hose connection for flushing the system.

Newstripe, Inc/800-624-6706 For information, circle 093 or see www.oners.ims.ca/2083-093



#### OUT-IN-FRONT STRIPING

Tru Mark Athletic Field Marker introduces the RS-500F Rider, a self-propelled field marker with an integrated paint shoe assembly in front for visibility and coverage. A foot pedal lifts the shoe to avoid obstructions. The assembly incorporates a two opposing adjustable nozzle bracket and a variable shoe width capability from 2-8 in. that floats over the terrain for added line accuracy.

Tru Mark Athletic Field Marker/800-553-MARK For information, circle 066 or see www.oners.ims.ca/2083-066 A Unique Improvement. From its deeper blue-green color, to superior handling, your users will compare Celebration favorably to other bermudagrasses.

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# In & On the Ground

#### MULTIPLE LINES & COLORS

You can paint multiple lines and carry up to three colors on Kromer's riding paint liners. You will create professional fields in less time and labor. Each tank, including the auxiliary tanks, on the unit has a paint wand option allowing you to paint logos, numerals, and stencils in your choice of colors.

Kromer Co. LLC/800-373-0337 For information, circle 092 or see www.oners.ims.ca/2083-092



#### PERMANENT LINES

PermaLine is an inlaid synthetic grass line for natural grass athletic fields that crews can mow and line as usual. PermaLine has an expected lifespan of 10-15 years, and a 5-year warrantee covers premature wear as well as UV degradation. PermaLine/866-546-3787 For information, circle 061 or

see www.oners.ims.ca/2083-061



#### FIELD PAINT

Pioneer's MAX contains Halogen 2000 and Optiwite optical brighteners for white lines. Pioneer's proprietary brighteners are mixed in to

provide lines up to 500 percent brighter under UV light and up to 35 percent brighter in sunlight to ensure lines "glow" during televised games. Pioneer Manufacturing/800-877-1500 For information, circle 064 or see www.oners.ims.ca/2083-064

# PAINTS & STENCILS

World Class has built its reputation as the reliable manufacturer of premium quality bulk and aerosol paints and custom stencils. For athletic programs



looking for specific colors, World Class can create custom colors. The company also provides the means to apply its premium paints.

World Class Athletic Surfaces/800-748-9649 For information, circle 096 or see www.oners.ims.ca/2083-096

#### **NEW MARKING SYSTEM**

Supaturf's Topline marking system offers a complete package of machines and paints specifically designed for field marking. The system includes lightweight machines and purpose formulated paints that fit anyone's needs and budget, from youth clubs to municipalities to the pros. The Easymix machine offers self mixing and self cleaning with paint ratios adjustable as you mark.

Supaturf/800-838-7622 code 95 For information, circle 095 or see www.oners.ims.ca/2083-095



#### CONTROLLERS

Applying the reliable characteristics and powerful technology of the EZ Pro 8600 Series controllers, the EZ Pro Jr. Series has been designed with an emphasis on easy and flexible programming.



Additional features like "Event Days" per program and "Percent Water Budget" per month give the installer the capability to improve watering efficiency while promoting water

conservation. LR Nelson/800-622-8024 For information, circle 067 or see www.oners.ims.ca/2083-067

#### LINING SYSTEM

Markers Inc. new held Iming system features a push in/pull out lining peg that holds the plumb line at the turf's surface for faster lining. Sports specific packages are available for soccer, football, and most intramural sports. The Basic Lining Package (BLP-6) is for corner and midfield lines, and baseball.

Markers Inc/888-566-8966 For information, circle 065 or see www.oners.ims.ca/2083-065



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### **Sportsturf** Machines

# Prepping soccer fields for fall

#### BY KEVIN VOS, CSFM

e begin getting ready for our fall season as soon as our spring season is over, which is at the end of June after four weekends of tournaments. The fall season kicks off the first weekend in August with a 4-day soccer tournament. That leaves us only a few weeks to get things ready.

The fields are thoroughly inspected for worn spots, low spots and anything else that needs to be changed or improved.

All fields are topdressed with 100 percent sand at approximately 1/8 inch thick, and low spots are leveled.

Deep tine aerification is done on the first of July after topdressing with 3/4-inch solid tines to a depth of 8-10 inches. Core aeration is also done over all fields in the middle part of August and again in late October/early November. During the remaining fall season, the high-use areas are aerified with solid tines approximately every 10-12 games or after a tournament.

Areas showing some wear and tear are slit seeded with Kentucky bluegrass at a rate of 2-3 pounds

> per one thousand square feet going in two to three directions. Seeding is done throughout the fall in high-use areas by slit seeding, divot mix or broadcasting. Either Kentucky bluegrass or perennial ryegrass is used, depending on the amount of wear and time of the year.

> > Depending on a mid-season soil test, the following applications are made for the remaining fall:

\* Sand-based fields-equal parts of granular nitrogen and potassium applications are applied approximately every 14 to 21 days. Roots 1-2-3 nutrient package is applied every 21 days; Iron is applied as needed.

\* Soil based fields-equal parts of granular nitrogen and potassium are applied at a rate of .5 pounds per one thousand square feet approximately the first week of July, a 20-0-20 slow release granular fertilizer is applied at a rate of one pound per one thousand



square feet approximately in mid-August, a 25-3-10 slow release granular fertilizer is applied at a rate of one pound per one thousand square feet approximately the end of September, and a 40-0-0 dormant granular fertilizer at one pound per one thousand square feet. Roots 1-2-3 nutrient package applied twice in the fall.

Fields are mowed a minimum of three times per week at 1 3/4 inch height. Fields are mowed every day of the week preceding and during tournaments.

The irrigation system is rechecked for proper distribution, soil moisture is continually monitored for either sand-based or soil-based fields. We try to apply 1-1 1/2 inches of water per week of rainfall and irrigation.

We follow IPM practices for pesticides, and applications are only made if needed.

Fields are then laid out according to the age level of the user group, and painted as needed with a growth regulator added to the paint.

Kevin Vos, CSFM, is athletic facilities manager, Muscatine Soccer Complex, Muscatine, IA.

ST

## University favors slitting approach

Like many universities, Southeastern Missouri State University knows all about sports fields. The school maintains two practice football fields, two practice soccer fields, a football field-sized band practice field and a softball field. And Dennis Koeberl, the grounds crew foreman, is in charge of keeping these fields consistently safe and playable. That means Koeberl knows the in's and out's of overseeding.

For the past two years, Koeberl has relied on a Redexim Charterhouse overseeder called the Verti-Seed, and he couldn't be happier.

"Every time we used our old machine, it would end up tearing up the soil too much," he says. "The blades actually pulled up the Bermuda runners, making a mess of things. We couldn't afford to disturb the soil on those practice fields."

The problem was exacerbated by the fact

that the university wanted overseeding done on other areas around campus (for seeding fescues) including new intramural fields and highly visible common areas. "I was worried about the possibility of damage from that overseeder," Koeberl adds.

The school's new Verti-Seed seemed to answer their overseeding challenges. "This one slits open the sole, drops the seed right into the hole and then covers it up. We can put a lot more seed on in only two passes and it's a lot faster, and no other machine does this."

Koeberl notes that the old seeder required several passes to cover a given area with sufficient seed. "The Verti-Seed saves us a great deal of time, so we can spend it on other, more important jobs around campus."

-Jeff McGinnis

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# **Sportsturf Machines**

# Overseeding: Proseed a guide for professionals

Proseed

BY JEFF MCGINNIS

T is a standard turf manager problem: how to achieve an established, healthy turf covering that is consistently dense on areas that get worn out by hard wear, drought, or winter damage. While differences do exist between regions, this guide was designed to assist most turf professionals with the basics of overseeding.

Overseeding today is a somewhat different process than it was in times past. Previously, a field might be shut down for 2 weeks while the procedure took place; today, given cost and scheduling pressures, the downtime is often limited

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to only 1 day. After that, traffic is restricted for a day, and you wait 2 days before mowing again.

Along side winter overseeding in tropical regions we should consider summer maintenance of winter sports fields.

Soil testing to determine nutrient levels is usually the first step in preparing for overseeding, followed in some areas of the country by scarification (in at least two directions) to remove debris and smooth out minor irregularities. In places where there is a high percentage of Poa annua in the existing turf make-up, intense scarification at 3/4 in. can help to weaken its competitive edge,

providing the newly seeded species with a fair start. After scarification (in some states), many turf professionals suggest mowing in at least two directions and then removing the clippings. A higher percentage of Poa annua in the cover may necessitate very close mowing, as this will weaken the Poa; unfortunately, doing this regularly will actually help the Poa, since it's more resistant to close mowing than more desirable species. The lesson here is to perform scalping only when there is a high percentage of undesirable turfgrass species.

A key step: a series of aeration steps should be performed in succession. First, deep-tine aeration should be done if possible (especially in compacted soil or areas with poor soil composition), using an aerator that produces a "heaving" action of the soil, creating fissures within the layers of soil where the tines enter it. Much of the topdressing mixture will flow down the holes produced, a desirable condition that permits rapid establishment and survival of the seedlings. If the moisture of the sand or soil prevents this flowing of the sand into the holes, than you may wish to dragmat and brush the sand into the newly created holes. (Phosphorus fertilizer may be applied before aerating, if the previous soil analysis determines it's needed.)

Following solid-tine aeration, the use of hollow-tines will aid sand incorporation, avoid layering and reduce compaction in the upper levels of the soil profile.

After initial aeration, topdress where needed with an appropriate sand and/or mixture. Choice of topdressing type depends on a laboratory analysis of existing surface samples. In most cases, a uniformly graded, medium/fine sand is preferred. Ideally the ground surface and the sand/topdressing should both be dry at time of application.

Using a dragmat and brush on the surface again will help achieve maximum filling of both solid-tine and hollow-tine holes. Additional applications of sand may help correct minor surface irregularities. Beyond this, aeration using a slitter (in five or six directions) will create numerous large drainage pores through the surface layers, improving root development and microbial activity, and enhancing filtration rates for efficient and uniform irrigation.

Once the above steps are done to satisfaction, the area should be lightly irrigated to ensure that sufficient moisture exists for rapid germination.

Finally, overseeding should be done lightly in at least two directions using

a quality overseeder and certified seed of an appropriate mix. Fresh, quality seed must be used to ensure high purity and high germination capacities. Worn areas should be overseeded more heavily. Uniformly topdress with 1/8 inch of sand to cover the seed and improve moisture retention. Prevent access to the area by visitors after overseeing and topdressing, and lightly irrigate to enhance seed germination. During hot weather, frequent light irrigation may be required, though too much water should be avoided as it can disturb the seeds.

Of all the process factors that affect overseeding success, the most important criterion by far in determining germination is good seed to soil contact. Because of this, some methods of overseeding may be insufficient; for example, simply spreading the seeds over the surface of the ground gives them little hope of ger-

minating in most cases. Methods that permit seeds to become established in the upper stratum of the soil, particularly approaches that involve burying the seed, are certainly preferred.

After establishment, the seedlings should be fertilized with nitrogen, though not before 2 weeks have passed; this will reduce the competitiveness of Poa annua and permit more uniform establishment. (If Poa annua is not present at seeding time, fertilizer can be applied before overseeding.) On high sand content constructions where black layer is present, avoid fertilizers that contain sulfur, since it can contribute to undesirable hydrogen sulfide formation and subsequent metallic sulfides.



Gradually reduce the frequency of irrigation to harden the new plants and encourage deeper rooting. Depending on the sport, initial mowing can begin when the seedlings are 2-3 inches in height. Be careful to remove no more than 25 percent of the leaf blade per cut and vary the direction of each cut. Cutting must be done as cleanly as possible to avoid damage or bruising to the young turfgrass.

Let's take a quick look at the two main types of overseeders available, keeping in mind that some machines are pedestrian models while others are tractor or truckster drawn.

Broadcast type machines are useful for random seed dispersal and so are more commonly employed where large areas must be covered. Drawbacks include the fact that these units often do not work well on undulating ground;

> seed is often left on the surface; and heavy postseeding watering may be needed.

> Drill seeders capable of actually burying the seed after putting it into the soil are state-of-theart. This type of seeder cuts a thin slot through surface thatch and into the soil beneath the seed is then dropped into the slot and the slot closed again guaranteeing seed to soil contact for every seed, affording high germination rates.

> For fine turf overseeding, look for machines that offer accurate metering even when using fine bents and close drill spacing.

Jeff McGinnis is a partner in the marketing communications firm Gaul Advertising. He can be reached at jmcginnis@gauladvertising.com.

# MODULAR Soccer Goalmouth

## by GreenTech

GreenTech's patented modular system is an innovative technology that provides solutions to problems associated with the design, construction, and maintenance of horticultural and turfgrass projects. This picture is an example of the GreenTech Modular System used as a soccer goalmouth. Modular construction allows new, mature, and well-rooted turf to be installed in worn, high traffic areas, such as soccer goalmouths. It eliminates the need to constantly re-grass the area with sod that does not have time to become fully established.



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## **Sportsturf Machines**

#### **TOPDRESSING MACHINES**

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Ty-Crop/800-845-7249 For information, circle 079 or see www.oners.ims.ca/2083-079







#### MANUAL SPRAYER

Echo's MS-100 manual backpack sprayer features an enclosed piston and diaphragm pump that produces from 15-150 psi. The 20-in. brass wand and adjustable nozzle of the unit deliver a controlled spray ranging from wide angle mist to a single stream. All critical seals and O-rings made from Viton formulation. Echo Inc/847-540-8400 For information, circle 083 or see www.oners.ims.ca/2083-083

#### MULTISPREAD SYSTEM

Earth & Turf's Model 300 MultiSpread topdresser with a dual-spinner spreading option has a 22-cu.ft. capacity and will spread up to 15 ft. wide. It's also available



with a beater or brush-spreading mechanism, so operators can choose the optimum spreading unit. The unit has a simple modular design with heavy-duty bearings and a V-groove tracking conveyor to provide durability and low maintenance costs. Earth & Turf/888-693-2638

For information, circle 085 or see www.oners.ims.ca/2083-085



#### UPGRADED SPREADER

Dakota Peat & Equipment changed its Turf Tender product line to make the equipment stronger. The Model 440 and Model 410 Turf Tenders feature yellow chromate hardware that replaces the standard hardware on last year's models as well as new cylinder shafts with black oxide coating rather than chrome.

Both models now feature spinner blades that can be adjusted in the field to modify the spread pattern to accommodate different types of sands.

Dakota Peat & Equipment/800-477-8415 For information, circle 084 or see www.oners.ims.ca/2083-084