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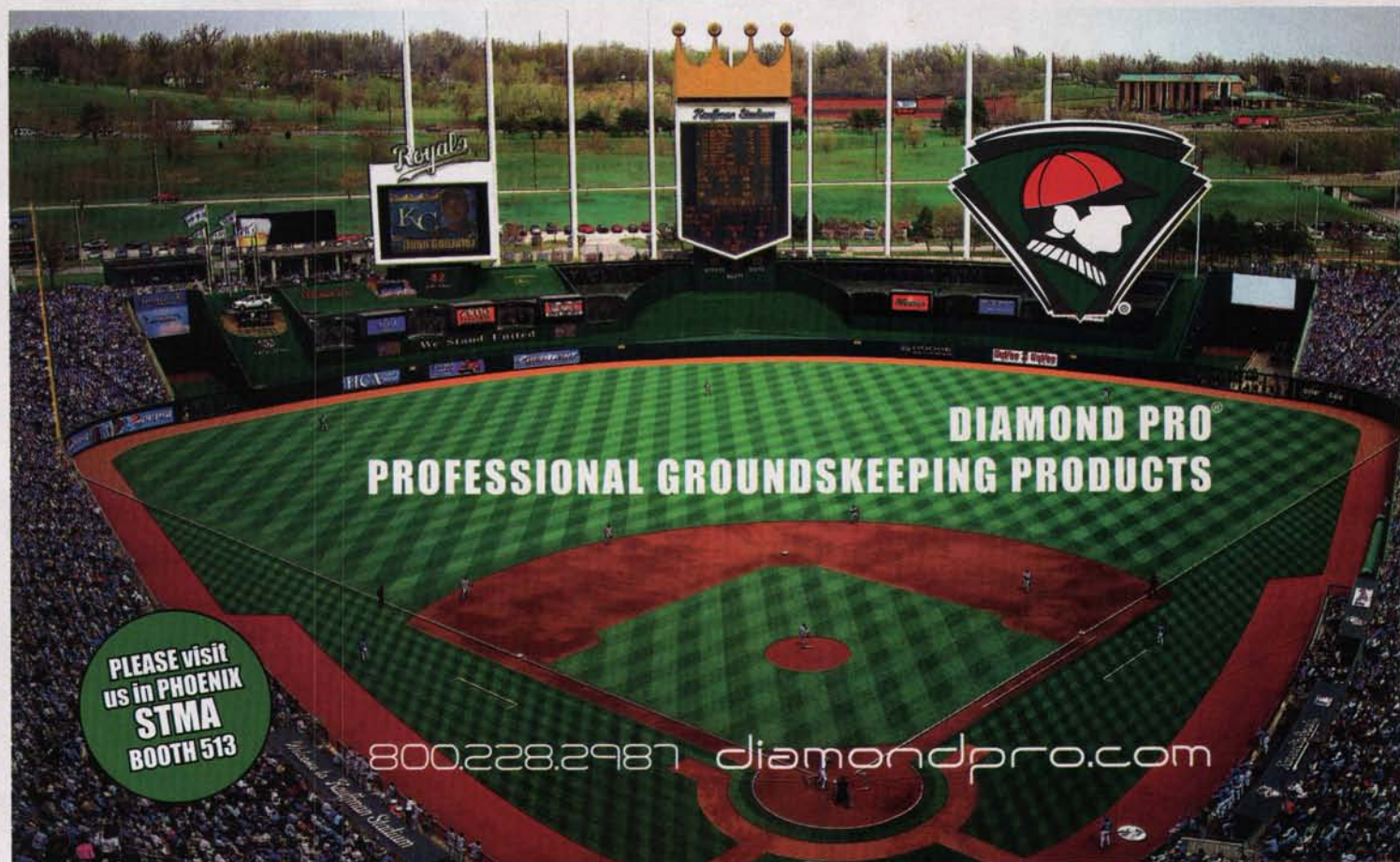
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## Poor grading tough to overcome

by Eric Schroder

**F**ew elements of successful sports fields are as important as the finished grade. No matter how you prep, no matter your soil conditions, no matter your turf quality, nothing can overcome the effect of a poorly graded surface.

Whether you hire a contractor or handle this duty in-house, it's vital to get it right. Former Sports Turf Managers Association president Mike Trigg, CSFM, hires a contractor to grade his fields at the Waukegan (IL) Park District.

"The main reason is timing and staffing," Trigg says. "We are specifically staffed for field maintenance operations that run March to November. Staff is not trained nor experienced to conduct major field renovations that would require laser grading.

"I have successfully budgeted contractual services for field improvements. If feasible, I have utilized in-house equipment or labor to

assist the contractor and reduce some of the cost of the renovation. We have worked with some great contractors over the years who work with our schedules; but more importantly, are very efficient and pay attention to details of our field renovations." Trigg said.

Chris Calcaterra, CSFM, the sports facilities manager for the City of Peoria, AZ, says he used to hire out all grading to a contractor, but realized the need to bring it in-house to be more efficient and maintain the fields on a more regular basis.

"The ability to save on materials by laser grading more frequently and keeping the field standards up to a higher level made it the method of choice," Calcaterra said. "The payoff has been multiplied by the labor savings and use survey responses."

### How it works

Grading specialists from Laser Leveling, a company that sells precision grading systems, say

that doing it yourself is not difficult. Their sports turf grading systems consist of three parts, the grading system, the laser, and machine control.

According to the company's website, place the laser at the center of your sports field, whether it is the pitcher's mound, the 50-yard line, or center field. Dial in the amount of grade you desire.

Position your grading system's cutting edge in an area that you consider to be close to grade. This is simply a reference point, it does not have to be exact.

Lower the cutting edge so that it is barely resting on the ground. Adjust your blade's sensor until it reads "On Grade." You are now ready to grade.

You need 5 additional horsepower for every added foot of scraper.

Hydraulics work with any tractor but you do need remote hydraulic hookups. One person can grade 50,000 square feet in 8 hours (ballpark figure). ■

Above: Alpine Services, Gaithersburg, MD, uses this machine to laser grade their field construction sites.

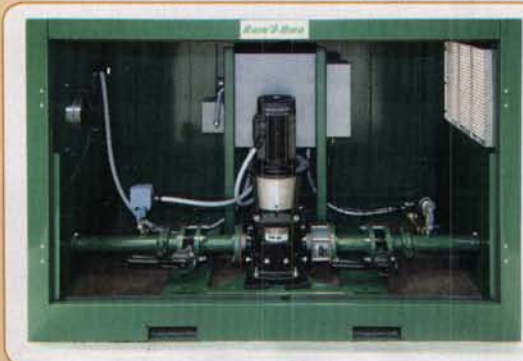


## The "Dumper"

The Dumper 201 from Grillo hauls the heavy loads with ease in uneven terrain taking the stress off of the arms, back, shoulders and legs. It is powered by a 6-hp Briggs & Stratton engine or 5.5-hp Honda GCV engine with 5-speed transmission with reverse. The handles have an extra support bracket and cross brace for strength. The 4.6 cu. ft. bucket lets you haul up to 440 lbs. on flat terrain and up to 330 lbs. on slopes.

### Grillo

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## Pump stations

Rain Bird Variable Frequency Drive Pump Stations are available in vertical turbine, submersible turbine, horizontal end-suction, vertical multi-stage, and split-case pump configurations capable of handling up to 10,000 gallons-per-minute. These options allow turf professionals to keep it simple and purchase every irrigation system component from one supplier. Available communication between Rain Bird Pump Stations and Rain Bird's central control software, SiteControl, maximize irrigation system control, saving time and money.

### Rain Bird

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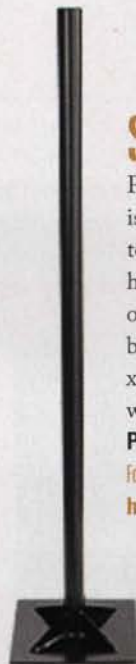
## Advantage Applicator redesigned

Aquatrols has improved its Advantage Applicator for better performance and longer life for the same low price as the original model. The new design features a brass control valve for greater durability, and a new precision spray nozzle designed to put down a large volume of water with a wide and precise droplet-distribution pattern for quick and even application. As an added value, it can quickly be transformed into a syringe nozzle by connecting the precision nozzle and high flow control valve together.

### Aquatrols

For information, fill in **056** on reader service form or see

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## Steel tamp

Par Aide Products' Accuform Steel Tamp is a durable, easy-to-use maintenance tool. It's great for packing clay around home plate and pitcher's mound, and for other areas of your field. The 1/4-in. steel base comes in two sizes (10 x 10 in. and 6 x 12 in.), plus it features a 48-in. handle with welded gussets for extra durability.

### Par Aide Products

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# Dylox®

## New formulation of Dylox insecticide

Bayer Environmental Science announced that Dylox insecticide recently received federal registration for a new liquid soluble (SL) formulation. Applied at a rate of 4.6 to 6.9 fl. oz. per 1,000 sq. ft., Dylox 420 SL insecticide works by contact and ingestion. Contact activity provides quick knockdown, while ingestive activity ensures complete pest control. The active ingredient, trichlorfon, inhibits the breakdown of acetylcholine by acetyl cholinesterase, disrupting the proper functioning of the insect nervous system.

**Bayer Environmental Science**

For information, fill in 058 on reader service form or see

<http://www.oners.hotims.com/13976-058>

## Hose reel trailer

Reelcraft's new self-contained hose reel trailer makes hose handling and watering easier, quicker and more convenient, and eliminates the need for a dedicated maintenance vehicle. Designed for grounds maintenance applications requiring up to 1- in. I.D. x 100 ft. of hose, the trailer bed also offers additional space for tool trays and other accessories. The wheel base matches typical work vehicles and the wheels are mounted inside the trailer bed to prevent snagging of trees and shrubs.

**Reelcraft**

For information, fill in 059 on reader service form or see

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# Artificial Intelligence

A new range of professional artificial turf care machines have been developed by Redexim Charterhouse. Known worldwide for their reliable and effective range of natural turf care equipment such as the Verti-Drain®, Redexim Charterhouse has produced a complete range of equipment to meet the challenging needs of the artificial turf market.



**Verti-Brush**

The Verti-Brush quickly and effectively levels and distributes applied or existing infill with powerful hydraulic brushes.



**Verti-Top**

The Verti-Top employs a highly effective synthetic rotary brush to remove debris and top layer infill from the turf, then sifts the debris out in a unique vibratory shaker which redistributes the clean infill back on the field.



**Verti-Groom**

To brush, loosen and decompact the hardest infill, the Verti-Groom is equipped with a variety of interchangeable tools.



**Verti-Air**

The Verti-Air utilizes a rotary brush and turbine compressed air to lift all material out of the turf, dry and filter the material, sift out the debris and return the clean, dry and decompact infill back into the turf.



**Verti-Broom**

For brushing and striping of artificial turf, nothing beats the proven Verti-Broom. The highly effective triangular arrangement of the brushes will straighten and groom each grass blade for an attractive and realistic finish.



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## Dirt Doctor Jr., infield groomer

Newstripe's all-new Dirt Doctor Junior infield groomer has been designed specifically to be pulled by 4-wheel drive utility vehicles or compact tractors. Junior shares the same features and durability of the original Dirt Doctor but weighs in at just less than 600 lbs. This unit replaces three separate implements in one convenient unit. It can plow, pulverize, drag, compact and finish drag a 4' wide path in one pass.

### Newstripe

For information, fill in **060** on reader service for or see <http://www.oners.hotims.com/13976-060>



## E-Z-GO unveils new golf car

E-Z-GO has introduced its new fleet golf car, the RXV, which is available in electric and gas models. The existing TXT model, introduced in 1995 and the best-selling fleet golf car in company history will remain a key component in E-Z-GO's lineup. Customers will see even quicker fleet turnaround times, lower energy, fuel and maintenance expenses, and easier upkeep, says the company.

### E-Z-GO

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## New adjustable lift

The new MoJack adjustable lift for riding mowers is constructed of solid tubular steel and designed to lift and secure any size of lawn tractor or riding mower, including zero turning radius models, to allow for undercarriage cleaning and maintenance. It easily raises and holds up to 400 lbs. securely, making blade sharpening, belt replacement and mower debris removal safer and easier. The MoJack offers triple redundant safety jacks and pins; a non-slip, self-braking winch and sturdy jack stands prevent the mower or lawn tractor from slipping or becoming unstable.

### Mo-Jack

For information, fill in **062** on reader service for or see <http://www.oners.hotims.com/13976-062>



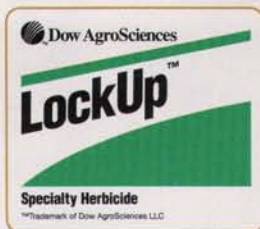


## Krylon Products brochure

Krylon Products Group offers an expanded full-color brochure featuring its extensive line of products for a complete host of athletic supply and maintenance needs, including striping paints and machines, specialty paints, and locker room maintenance supplies. The brochure outlines the key benefits of Krylon Industrial's highly pigmented striping paints, for applications from athletic fields to pavement. Featuring a universal tip, Line-Up Striping Paints are offered in water- and solvent-based formulas and are available in a number of colors.

### Krylon

For information, fill in **063** on reader service form or see  
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## New product for weed control

Dow AgroSciences has registered penoxsulam, a new proprietary molecule that delivers postemergence control of broadleaf weeds in turf at low use rates.

Penoxsulam can be used on both cool- and warm-season turf. Dow will market penoxsulam under the trade name LOCKUP specialty herbicide. LockUp will be available as a formulated product alone and in combination with other selective herbicides on fertilizers or straight granules.

### Dow AgroSciences

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## HS teacher, students win Football **FIELD OF THE YEAR**

**M**arc C. Moran, a horticulture and turfgrass science instructor at Atlee High School in Mechanicsville, VA, and Jim Anderson led Moran's all-student staff to a win in the Sports Turf Managers Association's 2006 Schools/Parks & Rec Football Field of the Year Awards contest.

Moran, who has a degree in ag education from Virginia Tech and is working toward his master's at Penn State, began working with the school's practice field in 2000 as part of a class project. Then asked he was asked to take over management of the sports turf facilities in 2001.

**SportsTurf:** How did you get started in turf management?

**Moran:** In the fall of 2000, I was approached by our new football





coach asking if I could give him some help in growing grass. He figured I could give him some insight into how to grow plants since I was an agriculture teacher. I had some limited experience with lawn turf after spending a few years in lawn product sales at the local farmers co-operative. That base knowledge of chemicals, fertilizers, and turf products gave

me some foundation for making some basic decisions. I simply incorporated this project into my existing horticulture classes and we slowly began to do more and more with the fields as time went on.

By the end of our first year we had taken three football/soccer fields into our care. During the first year, my students and I learned about field



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that can stand up to the stress and demands of big-time sports, to the wear and tear from the cuts, starts and sudden stops you get from football and soccer cleats, to the punishment of baseball spikes, relax, you've found it - TifSport. It's what many experts are calling the new standard in sports turf for the 21st century. For more info and a list of licensed growers visit our website or call 706 542-5640.

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## RAIDER STADIUM'S MAINTENANCE PLAN

|                  |   |
|------------------|---|
| <b>January</b>   | Field covers checked every other day.   |
| <b>February</b>  | Field covers checked every other day.   |
| <b>March</b>     | Field covers checked every other day.<br>(Remove when temperatures get above 60°F.)<br>Mow at 1" as needed  |
| <b>April</b>     | Fertilize 15-30-15 Starter fertilizer at 1lb. N per 1000 ft <sup>2</sup><br>Apply 200lbs. calcitic limestone<br>Core Aerate two directions, drag cores and remove debris<br>Mow at 1", increasing frequency as green-up continues   |
| <b>May</b>       | Apply Revolver Herbicide for perennial ryegrass transition<br>Broadleaf weed control spraying with liquid nitrogen application of 1/4 lb. N per 1000 ft <sup>2</sup><br>Apply post-emergence crabgrass control as needed<br>Shatter-tine Aerate in two directions<br>Apply 200 lbs. calcitic limestone<br>Mow at 1", increasing frequency as green-up continues |
| <b>June</b>      | Deep Tine Aerate entire playing surface, 1 1/2" x 12" cores<br>Top-dress with 1/8" Calcined Clay<br>Vertical cut and Drag in cores<br>Overseed wear areas with Riviera Bermuda Grass at 1 lb. per 1000 ft <sup>2</sup><br>Apply Ammonium Nitrate at 1/2 lb. N per 1000 ft <sup>2</sup> , every two weeks<br>Mow at 1", 2 to 3 times per week as needed          |
| <b>July</b>      | Shatter-tine Aerate in two directions<br>Apply 200 lbs. calcitic limestone<br>Vertical Slicing of turf in one direction<br>Apply Ammonium Nitrate at 1/2 lb. N per 1000 ft <sup>2</sup> , every two weeks<br>Mow at 1", 2 to 3 times per week as needed   |
| <b>August</b>    | Shatter-tine Aerate in two directions<br>Apply 200 lbs. calcitic limestone<br>Apply Ammonium Nitrate at 1/2 lb. N per 1000 ft <sup>2</sup> , every two weeks<br>Mow at 1", 2 to 3 times per week as needed  |
| <b>September</b> | Shatter-tine Aerate in one direction<br>Apply Ammonium Nitrate at 1/2 lb. N per 1000 ft <sup>2</sup><br>Mark field weekly for Football Games<br>Mow at 1", 2 to 3 times per week as needed  |
| <b>October</b>   | Shatter-tine Aerate in one direction<br>Apply Commonwealth II Ryegrass at 10 lbs per 1000 ft <sup>2</sup><br>Apply 30-5-10 Fall Fertilizer at 1 lb. N per 1000 ft <sup>2</sup><br>Mark field weekly for Football Games<br>Mow at 1 1/2", as needed  |
| <b>November</b>  | Apply Commonwealth II Ryegrass at 2 lbs per 1000 ft <sup>2</sup> in crown and wear areas<br>Mark field weekly for Football Games<br>Mow at 1 1/2", as needed  |
| <b>December</b>  | Cover field with field covers, inspect every other day<br>Work with students to evaluate previous management plan and make improvements for the coming spring.  |

marking, logo layout and design, pest management, nutrient management, and irrigation. Year one was a crash course into nearly every aspect of sports turf management. Since then, my students have taken over the primary management of two baseball diamonds, two softball diamonds, two football/soccer practice fields, and Raider Stadium for which we won this award. We are also responsible for all game day setups and we work with our Athletic Director in coordination of stadium operations. I have been fortunate to be able to incorporate both teaching and sports turf management.

**ST:** How do you communicate with others as turf manager?

**Moran:** For me and my program, education is our first line of defense when it comes to questions about what we do and why we do it. By teaching the students, it's like having 40 turf managers out there with the answers to what's and why's. I work hard to teach my students so they can be informed of the rationale behind certain decisions and they use that to field questions that a lot of the public may have.

Being a coach myself, I work hard with other coaches to find out what things they may want, but I also work to keep them educated to what we are doing on their particular fields. I spend a lot of my time talking with our school administration, athletic/activities director, band director, physical education teachers as well as athletic coaches about maintenance schedules and long term plans as they pertain to certain fields under our care. Our stadium sees a lot of use from a variety of groups and sports and by keeping these people in the loop, we have been able to get a lot more accomplished.

We also work to keep our community informed of what we do and why we do it. As an arm of our education program we conduct adult education courses as well as e-mail updates to parents about lawn and turf care. The program also maintains a website that shows a lot of our field photos and description of our curriculum. We also have an area that allows people to email questions or concerns.

If it were not for our relationships with the all parties involved, we would not have had an opportunity to be a FOY winner.

**ST:** Do you plan any adjustments, large or small, to your maintenance plan in 2008?

**Moran:** In 2008, we plan on experimenting with intermediate and transitional ryegrass overseeding instead of perennial ryegrass. We