



### COMPACT CORDLESS DRILL

DeWALT has redesigned its line of 12-, 14.4-, and 18-volt compact cordless drill/drivers so they are smaller, balanced and more durable. The DW927K-2 model shown weighs less than 4 lbs. but delivers 300 in./lbs. of torque. The T-style handle is better positioned to improve balance and feel, says the company.

DeWALT/800-433-9258  
For information, circle 201



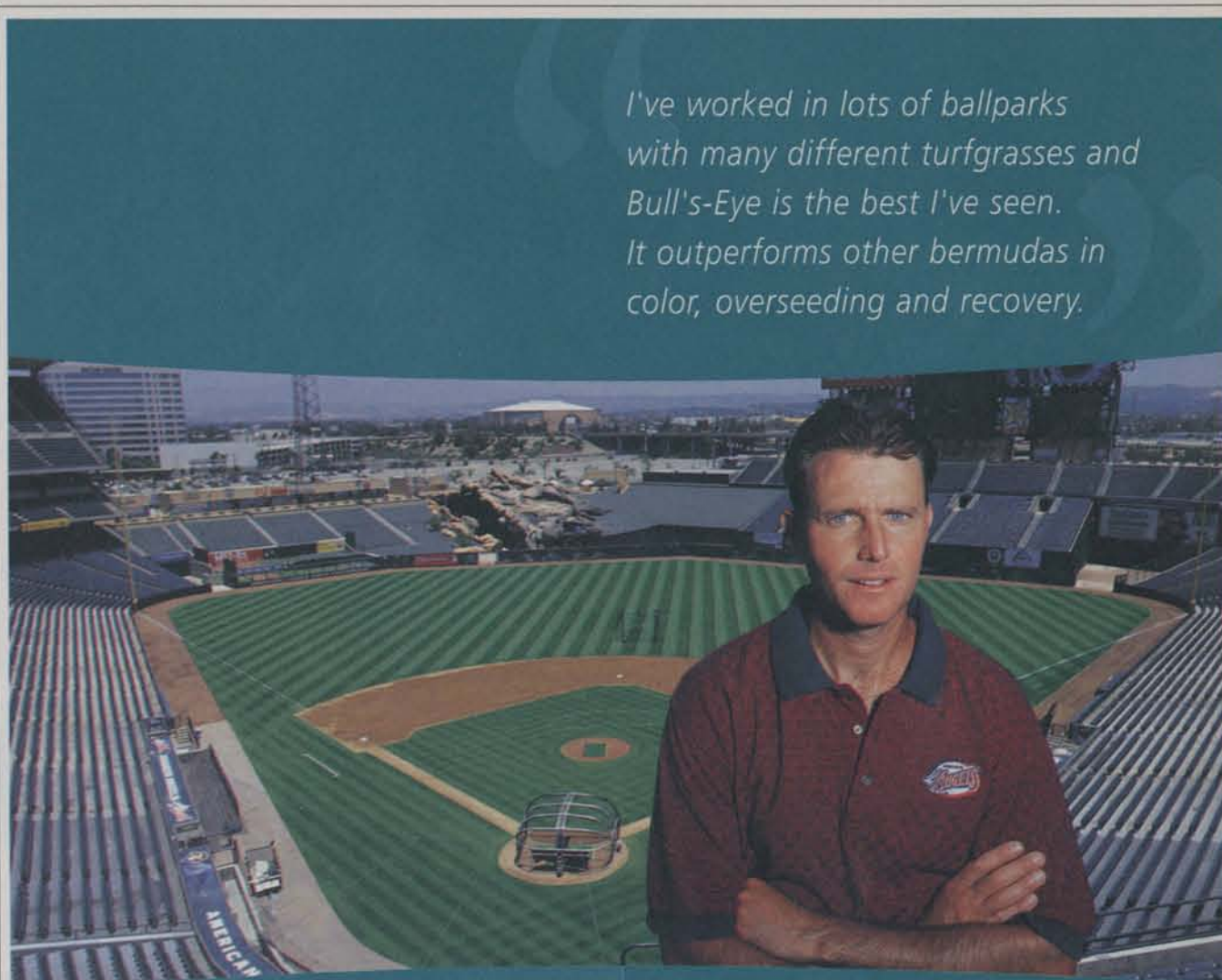
### UV FEATURES FRONT DISC BRAKES

Available this month, the Toro Workman 2110 utility vehicle features hydraulic self-cleaning front disc and rear drum brakes. The enhanced braking system allows for increased braking ability and a towing capacity of 1,200 lbs. when using a heavy-duty tow hitch. In addition, the Workman 2110 has a powerful 16-hp Briggs & Stratton Vanguard air-cooled gas engine.

"The front disc brakes provide optimum braking performance under hilly or heavy load conditions for high productivity and long-term value," said Neil Borenstein, Toro's senior marketing manager for vehicles. "The hydraulic brake system offers exceptional trailer towing capacity, increasing the versatility of the machine."

The mid-duty Workman 2110 offers a wide range of attachments such as a canopy, solid and folding windshield, portable refreshment center, hard cab, ballfield groomer, brush guard and bumper and many more attachments to customize your Workman for your specific needs.

The Toro Co./800-803-8676  
For information, circle 195



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—Barney Lopas  
Field Manager  
Edison International Field,  
home of the Anaheim Angels  
Anaheim, CA.



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For details call 800/447-1840, or visit [www.westcoastturf.com](http://www.westcoastturf.com)

Circle 110 on card or [www.OneRS.net/206sp-110](http://www.OneRS.net/206sp-110)

## Maintaining the Grounds

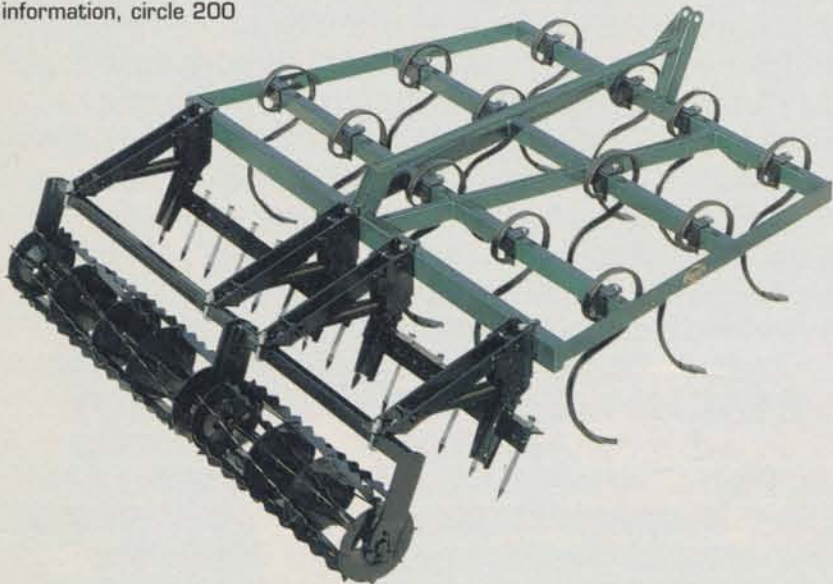
### SEEDBED FINISHER

Town & Country has available its Freedom seedbed finisher. The company says it takes only one pass to turn rough grade into a finished seed or sod bed. The unit's three rows of staggered edge-bent S-tines with 7-in. sweeps till and penetrate soil, and its working depth is adjustable to 6 in. For lighter soils, use S-tines with 2 3/4-in. shovels.

Available in 4-, 5-, 6-, 7-, and 8-ft. models, tractor pulling power requirements are 3-6 hp per foot of working width. Uses category 1 hitch.

Town & Country Ltd/419-532-3553

For information, circle 200



### BACKPACK SPRAYER

Shindaiwa's new ES726 engine-driven backpack sprayer is suitable for spraying small trees, sports turf, and for perimeter pest control. Competitive units with centrifugal pumps and low operating pressures do not provide the same degree of in-tank agitation and mist metering, says the company, which limits their use with certain wettable powders and applications.

The proven 230 series engine with chrome plated cylinder and two ring piston-produces 1.1 hp for maximum performance and long life in commercial applications. The 7-gal. tank capacity gives the user long run time and excellent in-tank agitation allows for the application of wettable powder chemicals. Quick adjustable padded shoulder straps and padded backrest provide the operator maximum comfort.

Shindaiwa, Inc./503-692-3070

For information, circle 203

# Mow Over 10 feet Each Pass!



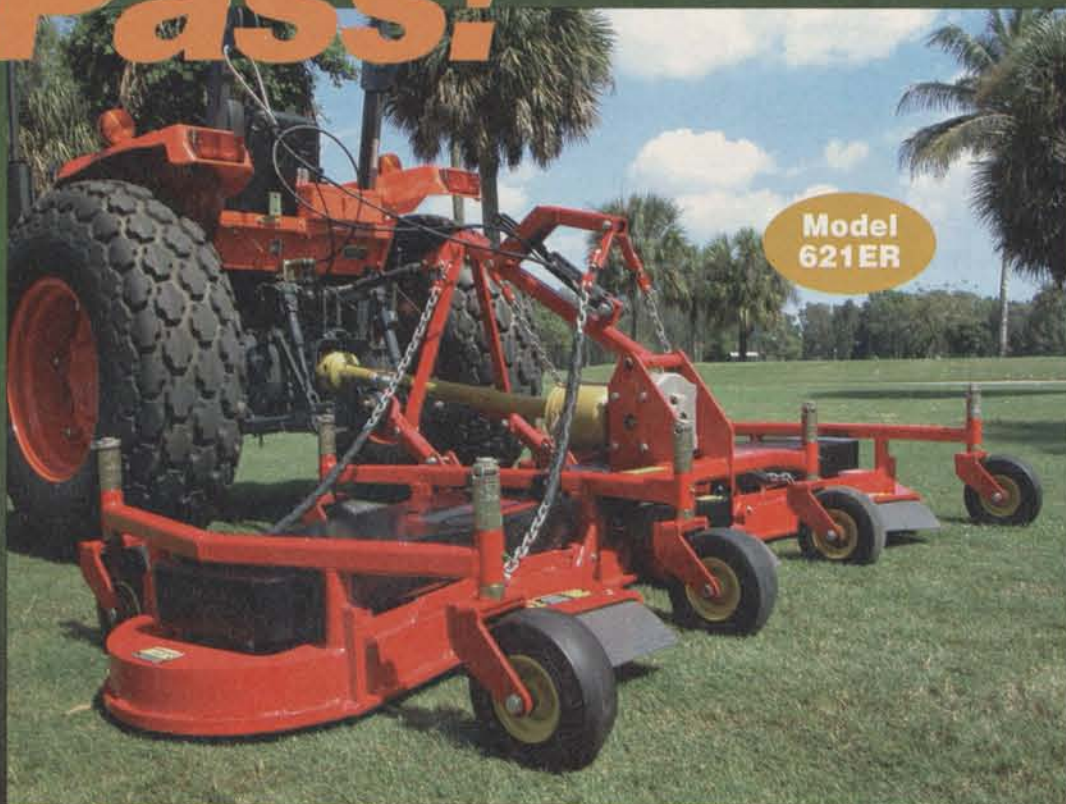
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## MINI EXCAVATOR

Caterpillar's 301.5 mini hydraulic excavator can dig in tight places, the company says, while at the same time tread lightly on turf. Powered by a Cat 3003 naturally aspirated diesel engine with flywheel power of 17.4 hp, the machine also incorporates a triple pump hydraulic system to balance digging power with machine speed. The unit can climb grades of up to 30 degrees.

An independent 2-speed motor drives each track, and the track drive modules are integrated into the roller frame for protection. Nine-in. wide track shoes in both rubber and steel can be interchanged to suit different turf conditions.

Caterpillar/309-675-8995  
For information, circle 197



## SPREADER

SpreadEx, division of TrynEx International, has introduced its new LG 375 commercial-duty granular spreader, designed for the turf market. Standard with a 10-ft. control cable, the spreader's material flow gate calibrates and controls material flow and allows the operator to distribute the right amount of material for each individual application, says the company. An adjustable deflector allows for spread pattern manipulation.

Designed to work with tractors, utility vehicles, riding mowers, trailers, and pickups, the LG 375 comes standard with a 2-in. receiver hitch mount. Optional three-point hitch, drop utility, and trailer mounts are available. No belts, pulleys or chains limit downtime. Holding up to 3.25 cu. ft. or 275 lbs. of dry, free-flowing granular material, the unit's 10-in. steel spinner can spread up to 40 ft. wide.

TrynEx International/800-725-8377  
For information, circle 196

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## DUAL-SPREADING TOPDRESSER

Earth & Turf Company increases the versatility of its Model 300 MultiSpread topdresser by adding a dual-spinner spreading option. The unit has a struck capacity of 22 cu. ft. and will spread up to 15 ft. wide. It spreads topdressing for athletic fields, golf greens, infield mix for baseball fields, chips on pathways and salt, sand or grit on sidewalks and driveways. It is also available with a beater or brush spreading mechanism so operators can now choose from three spreading options to get the best results for their operations.

Earth & Turf Company/888-693-2638  
For information, circle 204

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# Water management

## Do more with less

BY COLLEEN CLIFFORD

**T**hese days everyone is feeling a financial pinch from all angles due to the down economy. The environment hasn't been faring well either (much has to do with recent weather conditions, but also in large part to human mismanagement), so we're trying to recycle what we can and conserve what we cannot. The bottom line is, we're all learning to do more with less.

Even on sports fields, you can apply the "do more with less" philosophy to decrease spending and increase playability, safety, and aesthetics while benefiting the environment along the way.

### Where we are right now

Water. It's one of our most important natural resources, a major component of and biological imperative for all living things. It's important that we actively protect and conserve it. The amount of fresh water on the planet is finite, equaling approximately only one half a percent of all the world's total water supply; and this limited supply is becoming more expensive and less available every year.

Based on current environmental and human usage trends, experts are predicting a severe water crisis within the next 5-10 years. While there have always been parts of the U.S. that feel the effects of a dry season more than others, recent trends show that water problems have become more widespread and frequent across the country. Overall, the current water usage rate in the United States alone is 25% higher than the replenishment rate in aquifers and other sources of fresh water.

No matter how conservation-minded you may be, as a sports turf professional you have some tough choices to make regarding water use. Generally speaking, it certainly makes financial and ecological sense to use less water, especially during periods of the year when shortage potential is higher. However, more than just logic comes into play in this equation. Players, coaches, and managers have come to expect (demand?) uniform playing surfaces, no matter what Mother Nature throws your way; they want the playing field to be aesthetically pleasing, especially if the game is to be televised.

The players also rely on your expertise in maintaining the playing field at optimum conditions; lack of uniformity can result in serious injuries to players and costly liability for managers and their employers. And those very periods when the chance of water shortage is highest is, in all probability, when your facility's use is at its peak. The additional water you use to keep your fields in top-notch condition not only adds to the stress



Figure 1



Figure 2

**Figure 1: "Before"—without surfactants, water sits at the surface or channels through the soil profile.**

**Figure 2: "After"—following surfactant application, water penetrates the rootzone uniformly.**

on local aquifers, but also adds to your energy and water bills.

You want to do your part to protect the environment, but you certainly don't want to lose your job in the process. So what is a professional to do? You might want to take a closer look at surfactant usage as part of your overall maintenance plan. While it won't solve all your woes, it'll certainly go a long way in helping you do more with less.

### More with less

Regular use of surfactants can help you establish and maintain uniform playing surfaces more economically, as well as promote the quick recovery of turf after special events. Because the water is penetrating more thoroughly, more roots are getting water on the first shot; this means that less water needs to be applied overall to meet the demands of your thirsty turf, even during periods of drought. By simply adding surfactants to your routine, you have helped lessen the impact on our already overburdened water aquifers, as well as keeping a few more bucks in your pocket since your water bill will be reduced.

Beyond those direct savings, surfactants can also have an indirect effect on other business-related expenses. Because you'll be using less water in combination with surfactants, you'll also have less need to irrigate and therefore will be spending less on your energy bill. As an added benefit, since you'll be irrigating less, there will be less wear and tear on your irrigation system.

Surfactant usage can also help you save money on other chemicals while making them work to their maximum potential. Just like water, applied chemicals will either stay at the surface where they don't do any good, or channel unevenly through the soil profile, concentrating in some areas of the soil while missing others altogether. And, just like water, surfactants will help soil-directed fertilizers and pesticides travel into the rootzone more evenly so that all of your plant material can take equal advantage of the benefits. Because the chemicals are spread out more evenly, you'll need to use fewer chemicals to achieve full coverage and maximum benefit. And using less means that you will also have to purchase smaller amounts.

The environment benefits from this, too. Reduced use means that there are fewer chemicals lying around to cause potential contamination. But surfactants take this one step further—fertilizers and pesticides that move into the soil more efficiently are not sitting at the surface of your playing field where they can run off or wash away to less desirable locations.

One of the largest factors in water pollution today is run-off from fertilizers and

pesticides that move across surfaces and ultimately into a body of water, instead of percolating through the soil which acts as a cleansing filter before the water reaches underground aquifers. Because the chemicals are moving into the soil profile evenly, they are less concentrated, will break down faster, and are less likely to end up in the source of your drinking water.

And the biggest pay-off of all is that you will save time. By putting surfactants to

work for you, you won't be spending hours watering and re-applying chemicals to those spots that just didn't seem to take the first time around. What can you do with all this extra time on your hands? Whatever you want.

ST

Colleen Clifford is the marketing & communications specialist for Aquatrols, headquartered in Cherry Hill, NJ, 800-257-7797, [www.aquatrols.com](http://www.aquatrols.com).

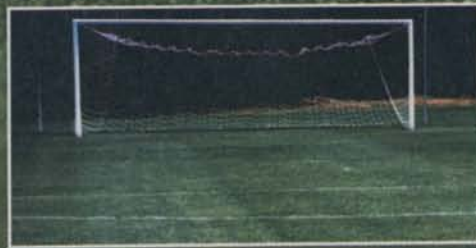
## What's a surfactant?

**Soil** surfactant technology has been around for almost 50 years, but has been a vastly underused resource in sports turf. Also known as wetting agents, these chemicals are used to help move water more efficiently through the soil profile. While these types of chemicals are not organic, some are formulated specifically to have minimal impact on the environment, e.g., the Primer technology developed by Aquatrols, which has been granted registration in Canada (one of the most strictly regulated countries in the world for applied chemicals).

Due to surface tension, water has a natural tendency to either sit at the surface of the soil where it evaporates, or drain through the soil unevenly so that it may be inaccessible to the roots of your turf. Surfactants are formulated to break down the surface tension of applied water, helping it to penetrate uniformly into the rootzone and provide water where it is most needed, without causing the area to become over-saturated and soggy.

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## LINE MARKING MACHINE

Fox Valley Systems has added the "Kan Shaker" feature to its line marking machines. This round molded plastic piece is pre-installed on the unit's front wheels so an aerosol can will fit firmly into the slot on the Shaker. As you're striping the can turns with the wheels and that effectively shakes and mixes your next can, saving time, says the company.

Fox Valley has made these machines for 30 years. Their Athletic Striper unit also works on hard surfaces. All machines have a 10-yr. guarantee.

**Fox Valley Systems/800-323-4770**  
For information, circle 167



## FAIRWAY FERTILIZATION

The ROOTS Turf 2002 program offers you a new turf food for Fairways fertilization. Fairway Formula 20-2-8, organic-based granular fertilizer provides complete nutrition for fairways, plus organic material to increase microbial activity in the soil or sand. ROOTS Fairway Formula is fortified with 10.8% slow or controlled release Nitrogen.

**ROOTS Inc./800-342-6173**  
For information, circle 175

## NEXT GENERATION CREEPING BENTGRASS

After amassing a large collection of creeping bentgrass plants, and years of selection for improvements, Lebanon Turf Products has introduced Independence Creeping bentgrass, a completely new, cutting edge bentgrass.

Independence was bred for improved turf quality and overall disease resistance—specifically to exhibit improved resistance to dollar spot, the most costly disease in bentgrass management.

Independence has also been developed with the optimum density, superior traffic tolerance, improved mowing qualities, and brightness of color. Independence is an upright, aggressive variety that establishes rapidly and recovers quickly from ball marks and divots. Its mowing height flexibility allows for its use on fairways, tees, and greens.

Independence develops a medium dense, fine textured turf without developing excessive thatch, which also allows for easier topdressing than other more dense varieties. All these features help Independence deliver the ultimate playing surface, while also being easier to maintain.

Independence Creeping Bentgrass will be available September 1 exclusively from select Lebanon distributors.

**Lebanon Turf Products/800-233-0628**  
For information, circle 165



# Lebanon

TURF PRODUCTS

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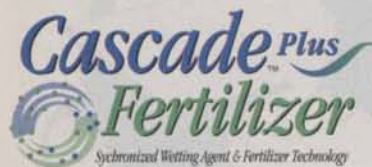
## NEW WETTING AGENTS

FloraSPORT is introducing to the sports turf industry two new wetting agent products designed for clay and sandy soils. The benefits of the new products mirror the different nature of these two soil types.

MOVE's proprietary formulation promotes quicker, longer lasting moisture penetration properties to soil than traditional

wetting agents, says the manufacturer. H2OLD is a non-ionic wetting agent that promotes entry and even distribution of water into the rootzone. Its components then interact with the soil molecules to retard leaching.

FloraSPORT Turf Products/901-853-2898  
For information, circle 161



## WETTING AGENT & FERTILIZER COMBO

Precision Laboratories has Cascade Plus fertilizer, a wetting agent and fertilizer combination product specifically designed for the golf course, landscape, and specialty turf market.

The new product combines the proven wetting agent technology of Cascade Plus with a fertilizer blend to provide turf managers with a single application of enhanced water infiltration chemistry and turfgrass nutrients.

Cascade Plus is a wetting agent that has been scientifically proven to control localized dry spots and to significantly decrease soil hydrophobicity. The product offers a synchronized release technology that has been shown to improve turfgrass quality and water infiltration. In both university tests and on-site golf course testing throughout the summer of 2001, the product was found to be a water management tool, controlling localized dry spot, increasing water infiltration, and more efficiently managing water use.

Precision Laboratories/  
800-323-6280  
For information, circle 162

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**Sprint® 330** delivers more iron to grass and keeps working after other products have fallen short. High performance turf needs high performance iron, and Sprint delivers, even in highly alkaline or calcareous soils. That's why it's the iron chelate turf and greens experts have trusted for over 15 years, and why you can trust Sprint to keep your grass in peak condition.

**Admiral™ Liquid** controls the growth of algae and other aquatic vegetation in lakes, ponds, and other bodies of water while adding a beautiful, natural-looking blue. Registered by the EPA, Admiral Liquid promotes a healthier and balanced aquatic ecosystem and is an important part of any lake management plan. Create more beautiful waterways with Admiral.

Admiral is a trademark of Becker Underwood, Inc. and is registered with the Environmental Protection Agency, No. 67-64-2. Read and follow label directions.

**Green Lawnger™** puts an end to discolored turf. It's not a turf dye; Green Lawnger is an environmentally friendly permanent green pigment. Easily applied with most sprayers, Green Lawnger adds a healthy, natural shade of green that wears brilliantly and keeps turf looking fresh until you mow it away. So, bring it on—we've got you covered.

For more information about Becker Underwood's full line of quality turf products, please contact your distributor.



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## TURF ANALYSIS

Dakota Analytical offers customer service in its product analysis testing of materials used for construction and maintenance of sports fields and golf courses. This A2LA accredited lab supports testing for most of the NFL, as well as major league baseball teams, and major college stadiums.

Dakota Analytical/800-424-3443  
For information, circle 170

## DRY LINE MARKER

The new Beacon Streamliner 35 features a revolutionary retractable handle that can collapse to 29 in., short enough to fit inside a standard 30-in. (high) on-site 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- and a 4-in. line.

Beacon Ballfields/800-747-5985  
For information, circle 172



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## TURF MAINTENANCE MADE EASIER

Put EVERGREEN to work on a natural grass football or soccer field and you solve many a turf maintenance problem, says Covermaster. In use worldwide, this turf blanket by COVERMASTER introduces a range of turf maintenance advantages. It greens-up grass quicker in the spring and keeps it so longer in the fall. It's ideal for quick seed germination during construction and repairs of heavy wear areas of the field such as in between hash marks or in goalmouths. Used with sod it enhances and accelerates root growth to establish strong and healthy turf in much less time and much more vigorously than with conventional methods.

EVERGREEN works by creating a "greenhouse" effect, allowing grass to breathe and retaining the right amount of heat and moisture to promote rapid growth. Another benefit is that the product eliminates spring clean up because most debris, leaves, twigs, etc. will not cling to the cover.

Covermaster/800-387-5808  
For information, circle 163