

Water management

Do more with less

BY COLLEEN CLIFFORD

These 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.

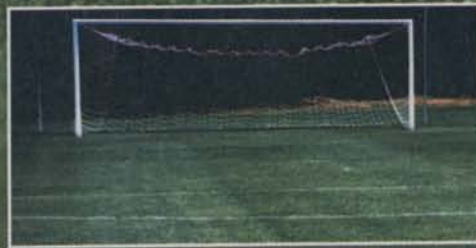
What's a surfactant?

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.

Team Sports and Recreational Turf Takes a Pounding...Fight Back with FloraSport™ Turf Products

*For superior sports and recreational turf, you need superior turf products. FloraSport™ 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.*



FloraSPORT™

TURF PRODUCTS

144 Mid South Cove • Collierville, TN 38017 • (901) 853-2898 • FAX (901) 853-3101
www.florasport.com

Circle 111 on card or www.OneRS.net/206sp-111

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

Our reputation is growing yours.™

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

Dress for Success.



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.



www.beckerunderwood.com

ISO 9001
REGISTERED

BECKER UNDERWOOD INC.
THE SCIENCE OF INNOVATION™

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



WORLD CLASS FACILITIES USE **WORLD CLASS**



The most important games in the world depend on one supplier for paint solutions.

We built our reputation as *the* reliable manufacturer of premium quality bulk and aerosol paints. Made of 100% acrylic, World Class super concentrate paints are guaranteed to last longer and are kinder to your turf. We supply custom color paints and coatings for field marking, traffic, goal posts, non-slip floors and artificial turf surfaces. For all your painting and equipment needs, World Class is the only name you need to know.

Call us today at
1-800-748-9649
or e-mail us at
info@wrldclass.com

**WORLD
CLASS**
athleticsurfaces



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



TURF FUNGICIDE

The first translaminar antibiotic fungicide for turf is Endorse, says manufacturer Cleary Chemical. The product attacks diseases in warm-and cool-season grasses through both foliar and translaminar systemic activity and can be used in either a preventative or curative management program. Endorse is labeled for turf on golf courses, parks, and institutional grounds.

The product can be tank-mixed with a variety of labeled fungicides, including Cleary 3336 and Spectro 90WDG. For controlling dollar spot, Endorse should be used in a tankmix or in rotation with fungicides labeled for the disease.

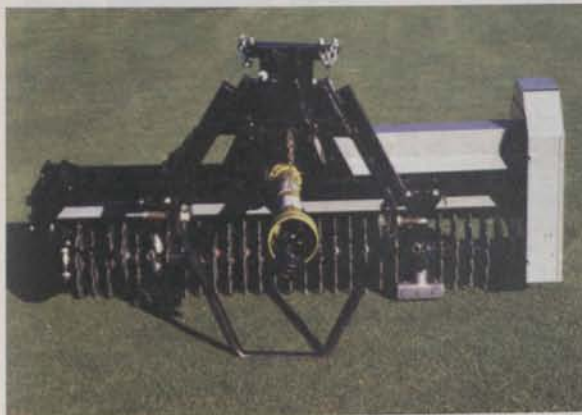
Cleary Chemical/800-524-1662
For information, circle 169

SURFACTANTS, ADJUTANT

Three new products have been added to the Simplot Partners offering: RelyII is a soil surfactant formulated to establish consistent water flow into and throughout the rootzone. ReWet is a soil surfactant treatment chemistry formulated to easily and effectively relieve existing water related problems such as localized dry spots or wet spots. Enhance is a specially formulated blend of adjuvants designed to improve the efficiency of applying pesticides by wetting and adhering to turf and ornamentals.

Simplot Partners/800-552-8873
For information, circle 171

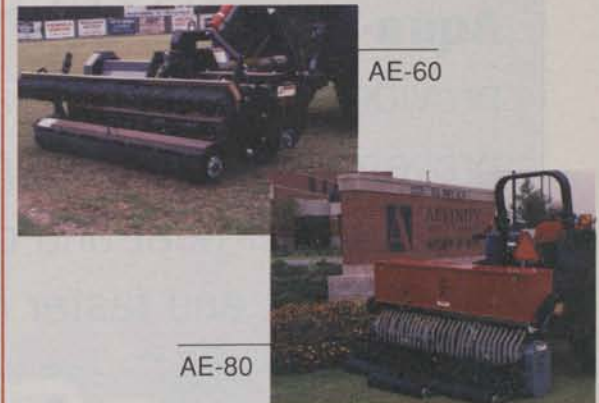
WHY SETTLE FOR SECOND BEST? **FIRST PRODUCTS INC.**



THE **NEW VC-60** VERTI-CUTTER IS DESIGNED FOR USE ON FAIRWAYS, TEES, AND ALL SPORTSTURF. SWING HITCH ALLOWS VC-60 TO TURN WITHOUT TEARING THE TURF.



THE **SEEDA-VATOR** CREATES THE IDEAL SEEDBED. THIS UNIT CAN BE USED FOR BOTH PRIMARY SEEDING AND OVERSEEDING. THUS, TWO SEEDERS IN ONE MACHINE.



THE **AE-60, AE-80 AERA-VATORS** ARE USED BEST TO AERIFY DRY AND COMPACTED SOILS WITHOUT PRIOR IRRIGATION. SURFACE DISRUPTION IS MINIMAL IN ESTABLISHED TURF.

"SEEING IS BELIEVING" CALL FOR A DEMONSTRATION TODAY

WWW.1STPRODUCTS.COM / 800-363-8780 / E-MAIL SALES@1STPRODUCTS.COM

FIRST PRODUCTS INC. P.O. BOX 1425 TIFTON, GA 31794

Circle 112 on card or www.OneRS.net/206sp-112

DRY, FLOWABLE CHLOROTHALONIL

Concorde DF, with spray-dried technology, is the new dry flowable formulation from Griffin L.L.C. It can be applied season-long to combat 14 diseases in virtually all turf-grass species and varieties.

Concorde DF contains more uniform granules making it a superior product to pour, mix, and handle, says the company. It has quicker dispersion, better blooming and improved suspension characteristics.

For maximum convenience,

Concorde DF pours dust-free from an easy disposal bag.

Griffin LLC/800-237-1854

For information, circle 166

BROYHILL'S LINE MARKER

The Kombi walk-behind line marking system by Broyhill is a self-contained, self-cleaning paint line-marking system. It features a 5-gal. capacity poly tank with an 8-in. fill well and strainer basket. The built-in 1.5 gal. fresh rinse tank has a self-cleaning system and the hinged access door for easier maintenance.

Featuring a 12-volt diaphragm pumping system that includes a rechargeable power pack and 10 x 3.0, 4 ply pneumatic tires, the line marker packs while allowing for maneuverability and straighter lines.

The 3-position marking boot mounts to the left, right, or center. The moisture proof on/off pump switch is handle mounted for convenience and the line width can be easily adjusted from 1 1/2 to 4 in., giving you more flexibility.

Broyhill/800-228-1003 ext. 34

For information, circle 145



Aqua-Maxx™ penetrant surfactant with advanced kelp extract formula Pellets and Liquid and now **Aqua-Maxx™ PLUS** Vitamin B1 provides sports turf managers with proven benefits - stronger, healthier turf, greater heat and drought resistance, and faster recovery.

Guaranteed.

Distributed by: All-PRO International, Inc.,
1-888-877-0378. www.all-pro.net



aquaMAXX
ADVANCED KELP EXTRACT FORMULA

Aqua-Maxx, Inc. www.aqua-maxx.com

Circle 113 on card or www.OneRS.net/206sp-113



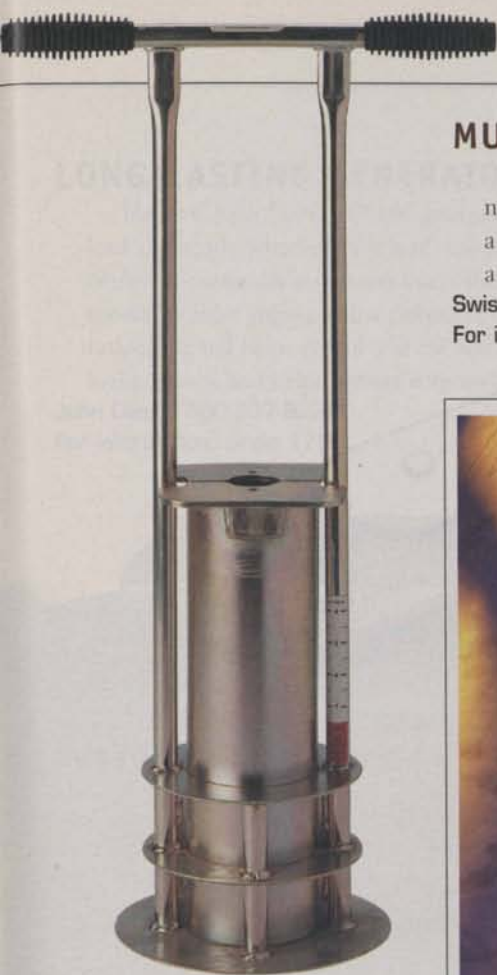
SURFACTANT

Aquatrols' Primer Select is an enhanced matrix flow soil surfactant that allows turf professionals to select the application rate and frequency to match soil type and program preferences. It can be safely applied and is guaranteed to solve problems and increase efficiency on all turf species, a broad range of soil types, and in all climates throughout the entire growing season.

Primer Select offers turf managers a superior soil surfactant that lowers costs by promoting uniform rootzone conditions and overcoming problems associated with water repellency. Available in both liquid and granular formulations.

Aquatrols/800-257-7797

For information, circle 164



HOLE CUTTER FOR PUSH-UP GREENS

Standard Golf's new Holemaster hole cutter cleanly cuts through heavy soil or "push up greens." The Holemaster's heavy-duty blades are case hardened with reinforced webs and backing plates, making it the strongest hole cutter available anywhere, says the company. The Turfmaster comes in one piece and features a sturdy twin frame that allows easy access to the blades. A rubber mallet is used to drive the blade halves into the green.

Founded more than 90 years ago, the Cedar Falls, IA-based Standard Golf manufactures golf course accessories and maintenance equipment tools. The company's extensive range of accessories, many of which can be customized, includes flags and flagsticks, bunker rakes, ball washers, course information signs, cups, litter receptacles, and yardage markers. The line of maintenance tools features roller squeegees, top dressing brushes, hole cutters, and soil profile samplers.

Standard Golf/319-266-2638
For information, circle 144

MULTI-PURPOSE IMPLEMENT

The Quadivator attaches easily to your ATV or lawn tractor, and can be used with numerous attachments (each sold separately). The 4-ft. deluxe unit comes standard with a cultivator attachment and is equipped with electric depth control that is operated from a switch that is mounted on the towing vehicle.

Swisher Inc./660-747-8183
For information, circle 173



**IF YOU'RE LOOKING FOR A PLACE
WHERE YOU HAVE COMPLETE CONTROL OF
YOUR PROJECT'S PUMP STATION SPECS,**

WE HAVE THE ADDRESS.



Waiting for your project's pump station specifications is a thing of the past. With the Flowtronex™ online Configurator program, you can get fast, accurate pump station specifications 24 hours a day, 7 days a week, and maintain total control over your project. The Configurator takes you through the process step-by-step and even lets you archive your projects for future reference. Visit www.flowtronex.com or call 1-800-786-7480 and find out how easy it is to spec your site from our site.

FLOWTRONEX™

No One Makes Your Life Easier. No One.

Circle 115 on card or www.OneRS.net/206sp-115