# ean, green low-thirst machine.



Arid's finer leaves, rich dark-green color, lower growth and deep roots create an attractive turf requiring less maintenance. Deep roots enable Arid to better withstand temperature extremes—cold winters and hot summers. Arid is an excellent choice for humid transition

rid

TURF TYPE TALL FESCUE

zones. It has improved drought and heat tolerance and requires less water. Arid's lowgrowth characteristics mean less mowing.

Order Arid from your seed wholesaler or sod distributor.

Another fine, quality controlled product of

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#### CITY MANAGER FORUM TO COVER PRO SPORTS

The International City Management Association (ICMA) expects nearly 200 city managers, stadium managers, finance directors and stadium authorities to gather in Cincinnati, OH, September 28-29, for the second annual Sports Management Conference. The 73-year-old association began the conference last year to bring together local government decision-makers who currently contract with professional sports franchises or hope to in the future.

"The purpose of the conference is to help local government officials gain a better understanding of important factors such as lease negotiations for stadiums, contracts with concessionaires and risk management," explains Michael Dowling, conference director. "City managers need to determine the economic impact of professional teams and facilities before entering into agreements with major or minor league baseball, professional football, or any other revenueproducing sport or event. Once they've done their homework, they need to know how to market their facilities to the franchises."

ICMA formed a sports consortium in 1985 in response to an increasing interest in sports facility marketing by its 7,000 members. The conference was established the following year. A few of the topics on this year's program are Spring Training and Minor Leagues, Revenue Generating Ideas, Trends in Lease Negotiations, Community Marketing Teams and the Economic Impact of Professional Sports Teams and Facilities. Interested officials can contact IC-MA, 1120 "G" Street NW, Washington, DC 20005, (202) 626-4600.

JACOBSEN SEMINAR HOSTS TOP TURF SCHOLARS



Harry Gill explains the turf maintenance program at Milwaukee County Stadium to students during the 20th Jacobsen seminar.

Every June for the past 20 years, the top turf management students at colleges across the U.S. and Canada have been treated by Jacobsen to a four-day, expense-paid trip to Racine, WI. The students receive four days of golf and sports turf classes to fill in where their college classes left off.

This summer, 36 students nominated by their college professors received the same broad range of classes as their predecessors have for the past 19 years. The emphasis has always been on giving the students the practical skills that aren't covered in college classes so that they have a head start when they begin their first job.

Aspiring golf course superintendents asked superintendents from public, private or corporate golf courses about specific turf problems and the realities of employment. Quinton Johnson, superintendent of Brookhaven Country Club in Dallas, spoke to the students about career opportunities and overall operation of corporate golf syndicates. Danny Quast, superintendent of Mil-32 sportsTURF waukee Country Club, described the importance of budgeting and selecting key personnel.

The entire group was introduced to the job of the turf manager in providing sports entertainment at Milwaukee County Stadium by Harry Gill, grounds supervisor of the Milwaukee Brewers. Gill explained the pressure often faced by a turf manager when a variety of events are held on a natural turf field. Last year, his biggest challenge was a flood that covered the field two days before a major homestand. He explained how sand-slit drainage saved the day.

Equipment buying, leasing, operation and maintenance were a big part of the seminar. The students were shown how to analyze equipment life value and given an idea of the importance of preventative maintenance. The students were able to tour the Jacobsen factory, see the CAD-CAM computerized design system and operate all types of turf management equipment.

#### TORO ANNOUNCES TWO MEMORIAL SCHOLARSHIPS

The Toro Company, Minneapolis, MN, has announced that in the spirit of community involvement it will direct a portion of its resources toward a Distributors Area Scholarship Program. Over the next five years, \$10,000 will be made available in the San Diego, CA, and St. Petersburg, FL, areas in memory of the late James W. Adams and Jack C. Cantu, who were owners and principals of large distributorships in their respective cities.

Designed by Toro and managed by Citizen's Scholarship Foundation of America, Inc. (CSFA), the program is aimed at encouraging and rewarding outstanding students.

Each year, two \$500 awards will be given in each area. The program will utilize a standard CSFA recipient-selection procedure. This includes consideration of past academic performance and future potential, school and community participation, work experience, career and educational aspirations and goals, unusual personal or family circumstances, and an outside appraisal.

Applicants must reside in either San Diego or St. Petersburg. They must be enrolled or planning to enroll in a full-time course of study at an accredited two- or four-year college, university, or vocational-technical school. First preference will be given to sons and daughters of Toro distributors in the two cities.

For more information on the Toro Distributors Area Scholarship Program, call the Toro Company at (612) 887-8900.

#### SCHILLER APPOINTED GLENVIEW PARKS DIRECTOR

Michael Schiller, former vice president of the Sports Turf Managers Association (STMA), has been appointed director of parks for the Glenview, IL, Park District. Schiller was instrumental in the early development of the STMA while serving the Northbrook Park District as grounds supervisor.

#### NOR-AM OBTAINS RIGHTS TO NEW FUNGICIDE

The U.S. marketing rights to Flutolanil, a promising new fungicide developed by Nihon Nohyaku Company of Tokyo, Japan, have been acquired by Nor-Am Chemical Company. The agreement is Nor-Am's first with a Japanese chemical manufacturer.

Leo Ekins, president of Nor-Am, said the fungicide will be targeted at diseases of turf, cotton, rice and peanuts. Nor-Am will conduct the necessary test work and field trials toward obtaining registration of the product by the U.S. Environmental Protection Agency.

# CHALKBOARD

### TIPS FROM THE PROS

#### SAND TOPDRESSING IN THE NORTHEAST

By James Kelsey, Partac Peat Corp. It seems that every few years someone writes an article "rediscovering" sand for topdressing fine sports turf. Each time, turf specialists have to remind turf managers about the extra care needed for turf regularly topdressed with straight sand. While sand topdressing is better than no topdressing, it is not preferable to a topdressing mix unless the root zone was constructed of straight sand.

In the Northeast, where heat-treated, commercially-prepared topdressing has been available since the '20s, the value of a uniform mix of sand, loam and peat is readily understood.

Topdressing, as it breaks down thatch and smooths your playing surface, should at the same time be creating a growing zone for turf comparable or better than your original construction mix. Applying a thin layer of sand to turf that has never been topdressed before will help control thatch. But over time, sand topdressing these areas will build up a droughty growing zone with turf that must be constantly "babysat," as Dr. John Hall at Virginia Polytechnic Institute has demonstrated repeatedly.

Topdressing with straight sand removes the turf manager's margin of error. Turf grown in sand is exposed to dangers connected with excessive nutrient leaching, lower microbial activity, dry spots, insufficient moisture reserve, and susceptibility to layering. This type of layering has been linked to current problems with the waterlogged, subsurface layers known as black layers.

In the Northeast, there are two main types of commercially-prepared topdressings available. One is patterned after specifications from Rutgers University. The other is based upon United States Golf Association (US-GA) specs. Both have high sand content but contain soil and peat to avoid the problems mentioned above.

The USGA spec is generally 93 percent sand by analysis (70-80 percent sand by volume) with no more than five percent silt and three percent clay. The Rutger's spec is 70-80 percent sand, 5-15 percent silt and 5-8 percent clay by analysis (about 50 percent sand by volume). Both specifications call for most of the sand particles to be in the .25mm to 1mm size range.

The differences between these two specs are significant depending upon the original construction of your greens, tees or athletic fields. The USGA spec emphasizes very low silt and clay content to achieve high porosity and water infiltration. This mix was



Germination rates can vary greatly in different topdressing mixes. The Rutger's mix (centerfront) germinated faster than the USGA mix called tee mix. Germination was slowest in sand.

designed to be compatible with the root zone soil mix of golf greens constructed to US-GA specifications. USGA green construction specifications were developed in 1960 and revised in 1973 to provide uniform drainage and maximum protection against compaction.

The Rutgers topdressing is used on greens constructed to more traditional specifications. The somewhat higher loam/peat content makes it a better germinating medium for overseeding. Both Rutgers and USGA topdressing mixes are being used on athletic fields in the Northeast, as well as grass tennis courts and bowling greens.

Another difference between the two mixes is heat treating. Heating the mix kills weed seeds, insects, fungi and nematodes and dries it out for screening. During the heating process a significant portion of the silt and clay is bound to the sand particles to form water-stable aggregates. These aggregates hold their shape under compaction and moisture to provide high porosity and infiltration while creating a healthier growing zone. The Rutgers specifications require heat treating while the USGA specs do not.

As VPI's Hall states, the cheaper cost of straight sand topdressing is certainly tempting when compared with some of our more commonly-used topdressing materials. Although commercially-prepared topdressings cost more than sand, they are inexpensive when compared to the cost of reconstructing or maintaining sports turf that has been abused with bad topdressing practices.

#### NEW TALL FESCUES OFFER ALTERNATIVE

The new turf-type tall fescues may be the first viable alternative to warm-season turfgrasses for southern California parks and schools, according to results of a three-year study at the University of California, Riverside. The trials, conducted by Dr. Victor Gibeault and Richard Autio, showed the turftype tall fescues were far superior to older "pasture-type" tall fescues and other coolseason grasses for weather conditions in the state.

While bermudagrass and other warmseason grasses are best adapted to the area, they go dormant in the winter and require overseeding with ryegrasses or rough bluegrass. The winter water needs of the overseeded grasses are greater than those of turf-type tall fescues.

The new tall fescues withstand summer heat better than other cool-season varieties. Their root systems are deeper so they require less frequent irrigation, withstand drought conditions better and are more tolerant of compacted soils. Turf-type tall fescues also tolerate saline soil conditions better than other typical cool-season turfgrasses.

# George Toma's squad beat the clock at Super Bowl XXI."



George Toma, Head Groundskeeper for the NFL and Kansas City Chiefs plus all 21 Super Bowls and the AFC-NFC Pro Bowl: "I bring my own Parker Estate Master Sweepers with me."



A pair of Estate Masters makes a clean sweep of halftime cleanup at Super bowl XXI.

Three minutes is all the time George Toma's squad has to clean the field between halves. He won't use anything but Parker Estate Master Sweepers. Why?

"Because," says George, "when there are over 2,000 performers on the field, there's always a lot of debris. The Estate Master is the only sweeper that lets you clean a swath over 8 feet with every pass. That gives me the speed I must have."

"Then, there's the toughness and general quality; I know I can depend on the Estate Master. It's the best equipment of this kind we've used. And, it's versatile. I use it to shade the grass between the lines, to pick up aeration cores before reseeding, to sweep grass clippings and to clean the field after a game." You



Box 1728 • Springfield, Ohio 45501-1728 • Phone (513) 323-4901 Circle 108 on Postage Free Card can put the same speed, versatility, and reliability to work on your own field. Just see your Parker dealer and ask him about the Parker Estate Master. In fact, ask him about Parker's full line of sweepers and vacuums. Tell him George Toma sent you.

## Use Warren's<sup>®</sup> <u>TerraCover</u><sup>®</sup> 100% Polyester+Ground Blanket to cover and protect your natural or artificial turf.

It *breathes* naturally . . . assures free passage of oxygen, carbon dioxide, water and some sunlight so turf stays healthy, beautiful and green.



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**TerraCover® is tough**, to withstand *heavy* traffic. Protects natural and artificial turf against crowd foot traffic, heavy portable grandstands, light towers, equipment trucks, trailers and TV camera runways.

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TerraCover® is easy to put down and take up... can be ready for the crowds in far less time than plywood.





TerraCover® Bench Tarp for Bench Areas, Infield Areas, etc.

**Finally . . . here's a solution** for protecting turf against damage from the cleats of football and soccer players, coaches and others moving along sidelines and in team bench areas. Keeps coaches and players cleaner, dryer *and* happier.

**TerraCover® Bench Tarps take only minutes to install.** The leading edge has polyester binding tape (lock-stitched in place) and grommets every 3 ft. that help hold it flat to the turf (you also set the team benches right on the TerraCover® fabric). Each 16 ft. x 75 ft. bench tarp rolls up to an 8 ft. wide roll (custom sizes are available for pro football and other special requirements).

+Made from Trevira® (Reg. TM of Hoechst AG)

"Wherever you put down roots, go with the PROs."



Direct all requests for information to: Warren's Seed & Special Products Division P.O. Box 459, Suisun City, CA 94585 Or call 1-800-828-TURF (8873). In California call 1-707-422-5100 Circle 126 on Postage Free Card

## PRODUCT UPDATE

ROOKIES

#### SYSTEMIC FUNGICIDE



The Environmental Protection Agency just approved registration for Banner, a new systemic fungicide for use on cool-season grasses. Tests have shown that Banner controls some turf diseases for up to 28 days and is effective on a broad range of disease organisms.

The systemic fungicide has been field tested for more than eight years. At regular label rates, Banner controls dollar spot, brown patch, anthracnose, red thread, rust, powdery mildew and stripe smut on cool season turf. At high rates it also aids in controlling leaf spot or melting out, when used alone or in combination with other fungicides in a regularly scheduled treatment program.

CIBA-GEIGY

Circle 133 on Postage Free Card

#### LANDSCAPE DRAINAGE SYSTEM

A prefabricated, highway-grade drainage system provides more cost-effective landscape drainage than pipe. It is Drain-It, which combines high flow capacity, strength and durability with economical installation. It is designed for demanding professional use on building grounds, parks, retaining walls, bridge abutments, golf courses and athletic fields.

The product's high flow capacity results from the use of a multi-channel, formed polyethylene core covered by a tough polypropylene fabric to prevent clogging. The non*sportsTURF*  woven, needle-punched fabric also allows water entry over 95 percent of its surface for up to 35-percent higher volume drawdown than perforated pipe.

Only one inch thick and weighing just eight ounces per square foot, Drain-It is easier to handle and install than pipe. Using standard trenching equipment, it can be installed quickly with a minimum of landscape destruction. Sections can be joined using only duct tape and a utility knife. The cost savings in labor and equipment are around 60 percent when compared to pipe installation.

Another key feature is the unique core crush strength of 8,000 psf, which easily withstands the pressures of backfilling and compaction during installation without loss of flow area. Both core and filter fabric are chemically resistant to ensure long-term durability. The product is available in 100foot and 150-foot rolls, in depths of 6, 12, 18 and 24 inches.

ATLANTIC CONSTRUCTION FABRICS, INC. Circle 134 on Postage Free Card

#### TRACTOR-MOUNTED FLAIL



Deutz-Allis has increased the versatility of its 6265 tractor with a Twin-Power PTO option and flail mower attachments. By driving a single front-mounted flail unit with the front power take-off and two belly-mounted units with the rear PTO, the 65 hp tractor can mow a swath 18.5 feet wide.

The flail units can be attached to the tractor with few modifications. The company wants to show that, for the same price as a dump truck with sander, a city parks department, university or golf course can purchase a unit that can be modified quickly for mowing, sweeping, snow removal or dragging a baseball diamond. It is developing a front-mounted landscape rake and a rear-mounted vacuum-collection unit.

#### DEUTZ-ALLIS CORP.

Circle 135 on Postage Free Card

#### POP-UP BUBBLER



Grounds superintendents can eliminate unattractive and unsafe risers around shrub beds with Toro's PC flood bubbler. It is the first nozzle that can be installed on a popup sprinkler, in this case the company's 570 line of pop-ups. At the end of the cycle, the bubbler retracts with the sprinkler into the ground to reduce visibility, vandalism and surface interference.

The PC flood bubbler assures an even flow of water from 30 to 75 psi with no effect on performance from lateral line friction loss. The bubbler is available in three flow sizes, ranging from .25 to 1.00 gpm.

#### TORO IRRIGATION

Circle 136 on Postage Free Card

#### MOISTURE PRESERVER

Reduce moisture loss and stress in plants during hot or windy periods with Cloud Cover by Easy Gardener. The organic polymer emulsion coats the leaves and stems of plants to reduce the amount of moisture lost to evaporation. The coating, however, does not interfere with photosynthesis or exchange of gases.

Cloud Cover is designed to prevent water stress, not correct it. It may be applied to most plants to avoid sun scald, windburn, cold damage, transplant shock and dry-out caused by heating and air conditioning units located near plants. The glossy coating also enhances the natural beauty of plants. The liquid comes in ready-to-use or concentrated formulations, from 22 ounces to 55 gallons in size.

#### EASY GARDENER, INC

Circle 137 on Postage Free Card

#### **RIDING REEL MOWER**



The Tri-King 1471 riding reel mower has been designed by Jacobsen engineers to provide efficient mowing of formal turf areas in an economical machine. A hydrostatic drive system and rear-wheel steering give the Tri-King maneuverability while three 26inch free-floating reels impart a quality cut down to 3/8-inch. The reels automatically stop when the operator raises them with a foot-actuated hydraulic lift—and automatically start again when lowered.

The distribution of the weight over the front drive-wheels and rear steering wheel creates optimal hill climbing ability. Automotivestyle drum brakes will hold the mower on a 30 percent slope. A direct-drive traction pump eliminates slippage, adjustment and replacement associated with belts.

The triplex mower's maneuverability and ease of operation enable fast, precise cutting of fairways, collars, tees and sports fields.

The mower is powered by a 14 hp Kohler cast iron engine with electronic ignition.

JACOBSEN TEXTRON

Circle 143 on Postage Free Card

#### ARMYWORM CONTROL

Oftanol 2 Insecticide is now labelled for control of armyworms, fall armyworms and cutworms by commercial applicators on golf courses, industrial grounds and parkways. The product is recognized for its long-term effectiveness against surface and soil insects attacking turf.

The insects have been added to an existing list of pests. Surface insects on the label include sod webworm larvae, chinch bugs, billbugs, flea beetles and hyperodes weevils. Among the soil insects are white grub larvae, bill larvae, crane fly larvae, mole crickets and fire ants.

ROOKIES

PRODUCT UPDATE

The manufacturer recommends that the material be watered into the turf thoroughly after application.

#### MOBAY CORPORATION

Circle 144 on Postage Free Card

#### REEL-TYPE IRRIGATOR



Almost any water source can be used by the Bauer Rainboy to irrigate more than two acres in a single setting. The sprinkler stand and the necessary length of hose are easily unwound from the reel trailer. As the unit operates, the hose pulls the sprinkler back to the reel. After completing a strip up to 500 feet long and 200 feet wide, it shuts off automatically.

One person can set up the Rainboy or prepare it for transport. Most small maintenance vehicles can pull it from site to site. The unit can be stored in an area 5 feet by 12 feet.

BAUER USA

Circle 145 on Postage Free Card

#### SCOREBOARD CONTROLLER



A single solid-state controller can now operate any Daktronics scoreboard regardless of the sport. The All Sports 2000 is a compact, rain-proof controller that can be used to replace older, single-sport controllers. The unit comes with all new Daktronics scoreboards.

The operator places an overlay for the particular sport on top of the sealedmembrane keyboard and enters a two-digit code to tell the controller which sport is being scored. A liquid crystal display prompts the operator through the initial set-up process and verifies all data that appears on the scoreboard.

The new console controls football, basketball, baseball and several other sports. It can also tie into shot clock displays for basketball. The simple keyboard and display help reduce scorekeeper error.

#### DAKTRONICS, INC.

Circle 146 on Postage Free Card

#### **GREENS AERATOR**



Ryan has made so many improvements to its classic Greensaire II, it gave it a new name, the Greensaire 24. The new aerator is faster, has simpler maintenance procedures and its major wear parts have been beefed up for longer life and greater reliability.

The Greensaire 24 can cultivate an average green in roughly a half hour removing 36 cores per square foot in a two-inch by two-inch pattern. Four tine sizes, from 1/4inch to 5/8-inch in diameter, are available to fit differing soil types and conditions.

Many major components have been redesigned to extend operating life and to simplify maintenance. Push rod bearings are now self-lubricating, the hydraulic system has been simplified and a new type of clutch and brake mechanism have been added. Bearing and seal designs have been changed to reduce friction and wear. The push rod and slide mechanism as well as the chain sprocket have been heat-treated and reinforced to extend their life.

Even an automotive-type muffler has been added to reduce engine noise. Finally, access to components for maintenance has been improved by the addition of a one-piece side panel.

#### CUSHMAN-RYAN

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# **Excellent Overall Performance**



\*PVP 8200167

Jaguar takes care of itself. It needs less feeding and thrives in hot weather and drought with limited watering. Jaguar takes traffic because it forms a dense, deeply-rooted persistent turf. Jaguar resists diseases (Rhizoctonia brown patch, in particular) and tolerates shady, low light areas. Jaguar needs less mowing. It is lower growing and more tolerant of close cutting. Jaguar has a leafier, finer texture and beautiful dark green color.

To find out more about Jaguar Turf-Type Tall Fescue contact the distributor nearest you or circle the number below on the card in back.

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Dave Reidman, Superintendent Crooked Stick Golf Course Indianapolis, Indiana

## "Nutriculture maintains my course and my reputation."

of the top players in the sport swing here in major tournaments - what you first notice about Crooked Stick is the turf.

The greens, the tees, the fairways, they're all green, full and rich an appearance you would not have recognized here just a season before.

'Last season, Crooked Stick underwent major construction," says Dave Reidman, "We added 16 greens, major bunker and depression work, new tees, everything. This season I told my distributor what I needed, what I wanted to do and what material I wanted to use. He recommended Plant Marvel's Nutriculture!

As superintendent of Crooked Stick Golf Course, Dave relies on Nutriculture's balanced and total nutrient feed plus its ability to tank mix with fungicides, herbicides and insecticides.

Nutriculture is great to apply because spoon-feeding is all we do. It goes right where I want it and not outside the greens or in the lakes. Nutriculture makes fertilizing a whole lot easier and a whole lot quicker.

With Plant Marvel's 100% water soluble Nutriculture, you'll readily see deep color, swift green-up plus you get the control you need. To learn more about incorporating Nutriculture into your fertilizing program, contact your Plant Marvel distributor or write to us for our free professional guide to improved turf and our pamphlet on Spoon-feeding with Nutriculture. Plant Marvel Laboratories, Incorporated, 317 East 16th Street, Chicago



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