

# Important Information

## On How to make your Athletic Fields More Beautiful, Less Costly and Safer for Players!

from

### AMERICA'S PREMIER WATER TECHNOLOGISTS

You may have already heard about our Subsurface Dispersal System for water, oxygen and prescribed nutrients — all delivered in measured amounts to the root zone of your athletic turf.

Our product known world-wide as "Leaky Pipe®" was shown just after Earth Day on NBC as the premier watersaving idea. Also, we were the theme of a popular movie in 1989 "Tequila Sunrise", where Mel Gibson is trying to get out of the drug business into the Leaky Pipe business so he can marry Michele Pfeiffer and water southern California. We have been awarded many awards including the Agricultural Engineering outstanding innovations in product or systems during 1986-87. We are already installed in over 1,000 athletic fields in the United States. We are in widespread use already in 54 countries.

We have been developing this method using a grid of porous pipe made from old auto tires for nineteen years now. We are on a campaign to install 5,000 athletic fields in the U.S. in the next 12 months. Our installation techniques are so refined and defined, your maintenance crew can install a field in a day or so. We will give you the machine (*actually a \$1,500 value*) with a three-point hitch (*an experienced crew can do a complete football field in 20 man hours*). Your complete cost for the first football field will be exactly \$6,900 with all the parts furnished, and free dispersed prescription organic fertilizer (*another \$1,500 value*) for the first year, based on foliar analysis in our laboratory, all toll, an \$18,000 to \$20,000 value.

### ADVANTAGES

1. Compared to an automatic sprinkler, water saving will be more than one-half. We can tell you your water bill in advance!!
2. Vandalism is next to impossible.
3. Maintenance is virtually non-existent.
4. Can be installed with so little damage to field that you can play on it the same night.
5. Impact injuries are reported in most cases to be eliminated. The reason: the turf is thick and deep and the ground is softer.
6. Expensive cultivation (aeration) of the field is no longer needed. We are doing it much more efficiently and without cost. The band can march on it and you can use it as a practice field and it will not become compacted.
7. We believe that we are 100% honest in saying you can more than pay for it in savings within the first year of use.
8. We are so convinced that you will like it, we will give you a five year warranty.
9. In any case, if your turf is not the most beautiful in the district, we don't want you to own it. The free use of our advanced state of the art foliar and soil analysis lab for the first year and free prescription *Natural* (organic) nutrients for the first year will insure that this is so!! No labor; no cost!
10. The machine to put the Leaky Pipe® in your school yard and other athletic fields will be given to you free with this first purchase.
11. For a small per diem charge, we will send one of our Installation technicians up to help you for a day or two, to insure a perfect installation. Our technician can train your men to be expert installers, seminars are conducted weekly at our factory and regionally from time to time.
12. Remember, no sprinkler heads; nothing above ground!!
13. If you have spending limit, we can bill you up to six (6) monthly payments of \$1,200.

*Please feel free to call without obligation. You won't be sorry.  
Or fill out the return card below, detach and mail, one of our representatives will contact you.*

**LEAKY PIPE®**  
P. O. Box 610564 • D/FW Airport, TX 75261  
**817 481-5588 • FAX 817 488-7931**



CLIP & MAIL

#### Of Course We Are Interested...

We have \_\_\_\_\_ Football Fields; \_\_\_\_\_ Softball Fields; \_\_\_\_\_ Soccer Fields (*how many each?*)

☐ We would like to read more about your revolutionary system.

☐ We would like to view your video.

(PRINT PLAINLY PLEASE)

Name \_\_\_\_\_

Title \_\_\_\_\_

Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_

Phone (\_\_\_\_\_) \_\_\_\_\_



# Overseeding: The Expanding Role Of Seasonal Turfgrasses

**L**ike leaded gasoline and low-top tennis shoes, the concept of a permanent monostand of turf appears to be fading into the past. As improved turfgrasses enter the market each year, many golf course superintendents and sports turf managers put them to work either by overseeding or interseeding. They are constantly adjusting the mix of grasses under their care to improve the durability and overall quality, whether on an annual or seasonal basis.

Interseeding and overseeding are practical alternatives to complete reconstruction or renovation. They allow turf managers to increase the natural defenses of a turf area by adding varieties better adapted to seasonal weather or use levels. This ability to adjust the components of a turf mix allows superintendents and groundskeepers to extend their playing season into the winter, when their primary turfgrass is dormant or lacks the ability to recover from use.

The addition of seasonal grasses to the turf manager's list of responsibilities requires an expanded knowledge of their characteristics and maintenance levels. "Temporary" turfgrasses must establish quickly when needed and transition out smoothly after their job is done. In both cases, the turf manager needs a certain amount of control over what is taking place. He must be able to balance the desired goals of establishment, seasonal turf performance, and transition. Selection of the best overseeding blend or mix is not a simple task.



Ryan Mattaway drill seeder. Photo courtesy: Cushman, Inc.

The use of cool-season grasses for overseeding warm-season turf is not new. Annual ryegrass, more appropriately named Italian ryegrass, has been used for many years for this purpose. Turf managers were willing to tolerate the light green color, rapid growth rate, and broader leaf of annual ryegrass to have winter turf color. Annual ryegrass has poor heat and cold tolerance, tends to shred when mowed, and is fairly susceptible to a number of diseases. However, it germinates very rapidly and fades out quickly in the spring, when main-

tenance practices are switched back to those intended for bermudagrass.

With the development of the first improved perennial ryegrasses in the '60s and '70s, turf managers began to favor the perennials for their darker color, finer leaf blade, more manageable growth rate, and improved traffic tolerance. The perennials could be mowed at the low cutting heights of greens and provided greater density for putting surfaces. Subsequent breeding work has produced perennial ryegrasses with improved mowing quality, better heat and cold tolerance, and, most recently, insect resistance.

Perennial ryegrasses are also maintained successfully at higher heights for tees, fairways, and athletic fields. Best of all, they germinate and establish as quickly as annual rye. A perennial ryegrass green, fairway, or field can also be played on within weeks without significant damage to the immature grass.

Some of the improvements in perennial ryegrasses, such as greater heat and wear tolerance, make them more persistent in the spring, when transition may be desired. Seed researchers are presently working on perennials which have the desirable features of dark color, density, and fine texture, without excessive competition to warm-season grasses in the spring. The tradeoff is a reduction in heat tolerance.

When different varieties mature in the spring is another factor researchers are looking into. As ryegrasses reach maturity



during the first spring after establishment, they begin to convert their energy toward producing seed. This causes the plants to become stemmy, points out Eugene Mayer, seed specialist with O. M. Scott & Sons in Marysville, OH. Later-maturing varieties exhibit less stemminess prior to spring transition.

The creation of the National Turfgrass Evaluation Program (NTEP) is helping seed distributors select and offer blends of perennial ryegrasses which fit their area best in terms of performance and spring transition. NTEP coordinates and gathers turf performance data from nearly 30 different test sites across the country. Virtually all present and future varieties of perennial ryegrass are being rated at the test sites.

Ask your distributor or local turf extension specialist for the results from the National Perennial Ryegrass Test. Copies of the report are available from Kevin Morris, NTEP, U.S. Department of Agriculture, Agricultural Research Center, Beltsville Agricultural Research Center, Beltsville, MD 20705. Distributors and seed companies have begun to utilize the data to offer regional blends in various parts of the country.

While perennial ryegrass has dominated the overseeding market, there are situations where it may fall short of expectations. Both chewings fescues and rough bluegrass (*Poa trivialis*) are more cold- and shade-tolerant than perennial ryegrass, explains Dr. Richard Hurley, vice president of Lofts Seed Co. in Bound Brook, NJ.

While a frost a few days before a major golf tournament can knock some ryegrasses off color, fine fescue and rough bluegrass will stay green. These two grasses are also more tolerant of shade from nearby evergreens during the winter. In these circumstances, superintendents often choose a mix of perennial ryegrass, rough bluegrass, and/or chewings fescue. Since a cold snap is impossible to predict, the inclusion of one or both of these turfgrasses may be wise in some areas.

"If spring transition is a concern," Hurley advises, "instead of overseeding with ryegrass, consider using a mixture of 80 percent chewings fescue and 20 percent rough bluegrass (by weight). Both chewings fescue and rough bluegrass are proven overseeding grasses, with histories of avoiding excessive spring competition with warm-season grasses. You might also try a mix of 85 percent perennial ryegrass and 15 percent rough bluegrass."

## ***NTEP is helping seed distributors select blends of perennial ryegrasses which fit their area best.***

"Perennial ryegrasses are most susceptible to discoloration by frost when they are inadequately fertilized," explains Dr. Bill Meyer, vice president and director of research for Turf Seed, Inc., in Hubbard, OR. "If you keep them well fed and growing in the winter, you reduce the chance of ryegrasses going off color."

Scott's Mayer says it's important to note that rough bluegrass and chewings fescue are not as traffic tolerant as improved perennial ryegrasses. Their use on athletic fields is not as practical as on golf greens.

*continued on page 24*

## **YOU COULD BE HONORED BY THE PROS!**

### **THE BEAM CLAY® BASEBALL DIAMOND OF THE YEAR AWARDS**

The judges for the 1990-1991 Beam Clay® Baseball Diamond of the Year Awards will be four head groundskeepers representing each of the major league divisions:

AL-East	NL-East
Brad Bujold, Toronto Blue Jays	Roger O'Connor, Chicago Cubs
AL-West	NL-West
Mark Razum, Oakland A's	Brandon Koehnke, Atlanta Braves

Winners will be honored at the annual Sports Turf Manager's Association Awards Banquet and be featured in sportsTURF Magazine. No entry fee is required. So, if you're proud of your baseball facility, why not enter your baseball field in the Beam Clay® Baseball Diamond of the Year Awards contest?

The Awards are sponsored by Beam Clay®, The Sports Turf Managers Association, and sportsTURF magazine in recognition of excellence and professionalism in maintaining outstanding, safe, professional quality baseball diamonds. Entries will be judged in three categories: professional diamonds, college diamonds; and school, municipal or park diamonds.

#### **Send the information below to enter:**

1. Age of baseball diamond (year of installation).
2. Geographic location (city and state).
3. Description of maintenance program for turf and skinned areas.
4. Operating budget for baseball diamond.
5. Irrigation: None ☐ Manual ☐ Automatic ☐
6. Total number of maintenance staff for field.
7. Does baseball field have lighting for night games?
8. Number of events on baseball diamond per year.
9. Types and number of events on diamond other than baseball?
10. How many months during the year is the field used?
11. Why you think this field is one of the best?
12. **Important:** Send two sets of color slides or prints.

**Deadline for entries:** Entries must be postmarked no later than November 16, 1990.

Mail entries to:  
Beam Clay Awards  
Kelsey Park  
Great Meadows, N.J.  
07838





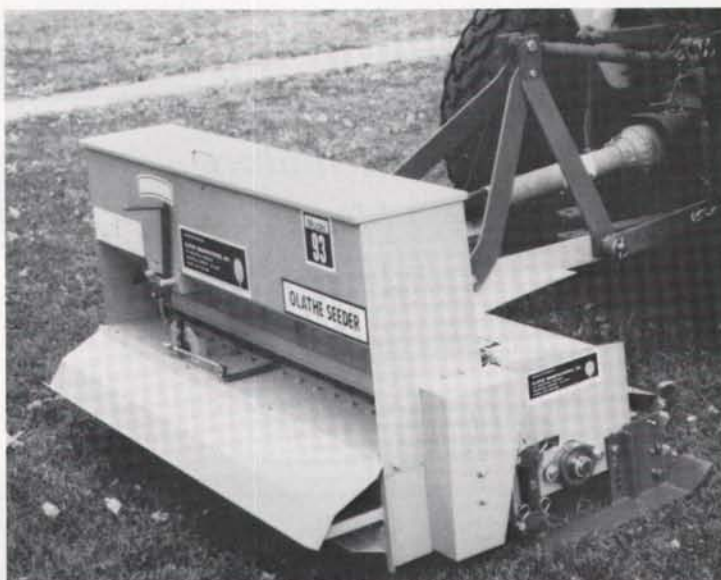
## Overseeding

continued from page 23

He adds that both rough bluegrass and chewings fescue transition well in the spring.

The popularity of bentgrass as a putting surface has also brought some changes to the overseeding market. As northern golf professionals and "snowbird" golfers head south during the winter to keep their games in shape, they bring with them their preference for bentgrass greens. Southern superintendents started overseeding their bermudagrass greens with bentgrass instead of ryegrass to satisfy them. However, the transition of aggressive bentgrasses in the spring occasionally presented problems in some areas.

Some superintendents eventually reasoned that the extra effort required to overseed greens with bentgrass was not much greater than maintaining bentgrass throughout the year. The use of preventive fungicides and the recent introduction of more heat-tolerant bentgrasses have enabled some southern superintendents to



Olathe tractor-drawn drill seeder.

offer bentgrass greens year-round. The fact that bentgrasses can be reseeded in case of loss, as opposed to resodding or sprigging of bermudagrass lost to winterkill, makes bentgrass surprisingly practical in some areas once considered bermudagrass-only territory.

Turf Seed's Meyer does not see transition as a major problem of bentgrasses. He

explains, "Bentgrasses do a nice job of concealing some of the mottling of bermudagrasses [in areas where they don't go completely dormant in the winter]. Bermudagrass offtypes become visible during the winter a few years after establishment. Bentgrasses spread quickly and laterally through the bermuda to cover up these patches of offtypes." Transition should not be a problem as temperature and humidity rise in the spring, adds Meyer.

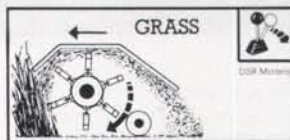
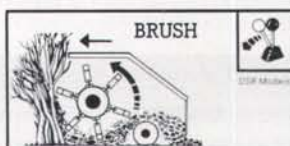
Similarly, tall fescues have found their way onto athletic fields in portions of the South and transition zone. Breeders have succeeded in developing

new varieties of tall fescue which more closely resemble Kentucky bluegrass in color, density, and fineness. They are generally not recommended for overseeding into bermudagrass fields. However, when used as a year-round turf, tall fescues stay green longer into the fall football and soccer seasons than does bermuda. Furthermore, tall fescues are less prone to

## REACH FOR IT.

Now go for all you can get. New Rousseau reach mowers give you the kind of maneuvering versatility it takes.

**N**obody cuts through absolutely everything like this M-Series Rousseau. Spectacular boom positioning. Exceptional reach with a 180° head that can even cut directly behind the tire. Dual selection universal and heavy-duty rotors. Don't buy any machine till you see this one in action. Ask us now.



Rotor runs forward to attack heavy brush from top to bottom like an axe... backward to cut grasses near ground level.



**rousseau**  
Because it's a real jungle out there.

ROUSSEAU, INC.  
2717 West 5th St. North  
Unit B  
Summerville, SC 29483  
Phone: 803-875-1850  
FAX: 803-875-1848

Since 1960

**Dale Carroll, inc.**

**GROWING MEDIA**

**WE PROVIDE WHAT OTHERS CAN'T OFFER!**

**YOU CAN ENJOY:**

- Soil mix uniformity
- Lower inventory cost
- Prompt service
- No added preparation needed (No waiting required - shipped moist)
- Lab pre-testing available

*"Acknowledged masters of the art of custom soil blending. We don't follow the trend. We set it!"*

- Putting Green & Tee Mixes
- Construction Mixes
- Overstructure & Athletic Fields

-Also-



**HUMAX**  
Today's Fertilizer Choice

**AquaGro**

Soil Wetting Agents

**SuperSorb**

Water Absorbents



Soil Amendment

1370 MAGNOLIA AVE., CORONA, CA 91719

714-735-1260

OR IN SO.CAL. 1-800-648-8862



winterkill and more shade tolerant than bermudagrasses.

While tall fescue does germinate fairly rapidly, it does not reach its full recuperative potential and traffic tolerance for a period of months. It is notably different from perennial ryegrass in terms of the amount of time necessary before it can be played on.

Another concern in some areas is brown patch disease. As the density of tall fescue increased with turf-type varieties, the resistance to this patch disease decreased. "Most of the turf-type tall fescues were screened in the West, where brown patch is not a problem," explains Dr. Douglas Brede, director of research for Jacklin Seed Co. in Post Falls, ID. "Ironically, early varieties such as K31 and Alta have more brown patch resistance than newer varieties. However, we have been incorporating brown patch resistance into some of our

***While tall fescue does  
germinate fairly  
rapidly, it does not  
reach its full  
recuperative  
potential for a period  
of months.***

newer varieties. We are doing more testing in the Southeast for this reason."

Like bentgrass, tall fescue requires additional maintenance to compete against adapted warm-season grasses as a primary turfgrass. "Any time you take a turfgrass out of its range of adaption, it will require special care," cautions Dr. Reed Funk, head of the turfgrass breeding program at Rutgers University in New Brunswick, NJ. By being aware of the problems with turfgrasses growing outside their range, the turf manager can adjust maintenance to compensate. In the meantime, turf researchers continue to seek better adapted varieties.

Jacklin has been exploring seeded varieties of bermudagrass with better cold tolerance than common bermudagrass. These new varieties establish fairly rapidly, provide superior durability for athletic fields, and offer greater disease resistance than

cool-season grasses during hot, humid summers.

In the fall, the bermudas can be overseeded with perennial ryegrasses. Bermudagrass lost to winterkill can be re-established through seeding instead of by vegetative means. The use of seeded

bermudagrasses for sports fields in the transition zone is a frequent recommendation of Dr. David Minner, associate professor at the University of Missouri in Columbia.

Another warm-season turfgrass being  
*continued on page 26*



THE PROFESSIONAL'S CHOICE  
... SINCE 1922

THE BASEBALL DIAMOND MIXES  
USED BY OVER 50 PROFESSIONAL  
TEAMS PLUS TOWNS AND  
SCHOOLS ACROSS THE U.S.A. AND  
CANADA. SPECIAL MIXES FOR  
INFIELDS, PITCHER'S MOUNDS,  
HOMEPLATE AREAS &  
RED WARNING TRACKS.

**Terra-Green**

**REDUCE RAIN DELAYS!**

WITH  
THE REDDER, LESS DUSTY  
SOIL CONDITIONER & DRYING AGENT  
THAT RETAINS MOISTURE  
IN HOT WEATHER

**PARTAC®  
GREEN SAND  
FOR DIVOT REPAIRS**

*The Ultimate Solution to Unsightly  
Divots at Televised Golf Tournaments  
and other Sports Events!*

AVAILABLE NATIONWIDE  
**1-800-247-2326**  
IN N.J. 201-637-4191

**PARTAC®  
GOLF COURSE  
TOP-DRESSING**



**AMERICA'S PREMIUM  
TOP-DRESSING**

HEAT TREATED  
CONTROL THATCH,  
PROMOTE HEALTHY TURF  
& SMOOTH PLAYING SURFACES

**NATURAL SURFACES AND SUPPLIES FOR BASEBALL, GOLF, TENNIS, BOCCIE, HORSESHOES,  
VOLLEYBALL, TRACKS, PLAYGROUNDS, EQUESTRIAN, FOOTBALL, SOCCER & OTHER SPORTS!**

DIAMOND DRY® • SUPER SOPPER® WATER REMOVAL MACHINES • HOLLYWOOD® BASES  
RIGID BASEBALL DRAG MATS • TAMPERS • FLEXIBLE TURF DRAG MATS  
YANKEE® RAKES & SQUEEGES • TENNIS COURT SUPPLIES • WHITE® DRY MARKERS  
JIFFY® WET MARKERS • MAUTZ® PAINTS & STENCILS • GUIDELINE® MARKER

**PARTAC PEAT CORPORATION, KELSEY PARK, GREAT MEADOWS, N.J. 07838**

Circle 171 on Postage Free Card



## **ANTI-WASH® / GEOJUTE® Is The Natural For Tough Erosion Control**

- Absorbs almost five times its own weight in water, which straw and wood fiber cannot do.
- Hugs tightly to ground surface, molding well to contours of land and reducing washout.
- Simple to install and easy to reposition before permanent installation, if necessary.
- Attractive natural appearance while vegetation is growing in.

Call our toll-free number:

**1 (800) 225 - 4099**

©1990 Belton Industries, Inc.

- Highly compatible with hydroseeding and other landscape planting techniques
- No non-degrading artificial materials to interfere with wildlife or later use of maintenance equipment.

To find out more about ANTI-WASH® / GEOJUTE®, the natural in erosion control, please write or call us today!  
(Distributor inquiries invited)

**BELTON INDUSTRIES, INC.**

8613 Roswell Rd. ■ Atlanta, GA 30350  
1 (404) 587-0257 ■ FAX: 1 (404) 992-6361



As Seen on T.V.

**SAVE WATER**  
up to  
**70%**

**RETAIN**

One quart covers 1 acre

- Water lawns up to 70% less!
- Helps comply with mandatory water restrictions
- Dramatically increases water holding capacity of soil
- Makes fertilizers work better
- Natural and organic

TO ORDER CALL  
**1-800-367-1963**

Distributors invited.  
Commercial Reps and Dealers Invited

**MANUFACTURED BY**  
**AGRI-MART, INC.™**  
9302 DENTON AVE., HUDSON, FL 34667

Circle 184 on Postage Free Card

## FIELD TORN UP & MUDDY?



NEW

# Terra-Green®

## "SUPER-GREEN"

**URNS MUD TO A FIRM  
GREEN PLAYING SURFACE!**

and **THE GREEN Colored** Soil Conditioner/  
Drying Agent/Top Dressing  
Continues Working After the Game  
to Improve Drainage and Turf!

**AVAILABLE NATIONWIDE**

**FOR A  
FREE SAMPLE CALL TOLL FREE  
1-800-247-2326**

PARTAC PEAT CORPORATION Kelsey Park,  
Great Meadows, N.J. 07838 IN N.J. 908-637-4191

Circle 183 on Postage Free Card

## Overseeding

*continued from page 25*

studied for establishment by seed is zoysiagrass. Dr. Herbert Portz, a retired professor from Southern Illinois University in Carbondale, and Dr. Milt Engelke at Texas A&M University's Agricultural Research Center in Dallas, have been trying to increase the germination rate of Korean common zoysia for nearly 20 years. Zoysia is a dense, spreading turfgrass with relatively fine leaves that has been limited to establishment by sod and plugs.

Their work has inspired others to take a serious look at a process called seed priming. By treating seed with chemicals to prepare it for germination, both the speed and percentage of germination can be increased substantially. Primed seed can also be packaged and shipped like conventional seed, although its shelf life is limited to less than one year.

Zoysia has many strong features that make it attractive for fairways and sports fields. Once established, it forms a dense, low, and highly wear-resistant surface during warm periods. It exhibits strong

tolerance to heat, drought, shade and cold. Zoysia grows more slowly than bermudagrass and in a more upright habit. It should be mowed with a reel mower and verticut periodically to avoid thatch buildup. One drawback is the fact that it enters dormancy fairly early in the fall and requires overseeding for heavy autumn schedules. However, it appears to be less prone to winterkill than seeded bermudas.

Seed priming is just one method of improving the speed and percentage of germination of turfgrasses. Pregermination is rapidly gaining popularity with both golf course superintendents and sports turf managers. In this method, seed is germinated in barrels of water or dampened piles before it is sown. There are certain guide-

lines concerning pregermination that affect its success. Contact your seed supplier or extension turf specialist before attempting pregermination.

The beauty of pregermination is that it eliminates weeks of time and improves uniformity during establishment. It can be used for slower-germinating turfgrasses, such as Kentucky bluegrass and bentgrass, as well as the quick ryegrasses. By reducing the waste and uncertainty of conventional seedbed germination, it may allow for the use of lower seeding rates.

The current test of a buyer's knowledge about overseeding mixes is found in the endophyte. This natural parasite lives between the cells of turfgrass plants. Instead of harming ryegrasses, tall fescues, and

chewings fescues, the endophyte sickens insects that attempt to feed on their roots and foliage. The result is that these grasses repel turf insects to a large degree, saving them from insect damage.

Seed producers have successfully incorporated endophyte into many varieties of cool-season grasses. By overseeding or interseeding with these varie-

ties, the sports turf manager can increase the insect resistance of his golf course or sports fields.

Dr. Richard White, plant physiologist at the Texas A&M University Agricultural Research Center in Dallas, has been studying the benefits of endophyte in turfgrasses. "We have been comparing the same varieties with and without endophyte," says White. "Insect resistance in the endophyte-enhanced plants is fairly consistent. However, in a number of cases, we have also seen increased vigor and drought tolerance."

"The endophyte-enhanced turf seems to get an extra jump in the spring when the turfgrass is flowering [producing seed]. This vigor may extend into the summer to



Overseeding ryegrass into bermudagrass green with drop seeders. Photo courtesy: O.M. Scott & Sons.



improve drought tolerance to varying degrees. It is a subtle difference that we do not understand completely at the present time," White admits.

So far, added vigor has been scientifically documented only in space plantings in nurseries. More research is needed on root growth and plant water use to identify the right type of endophyte, environmental conditions, and varieties for the greatest effect, adds White.

He does point out that the benefits of the endophyte can be lost if seed is not properly stored or is kept for too long. "It's important to use fresh seed that has been handled and stored properly," White stresses.

Whether endophyte is an important fac-

---

***"The endophyte-enhanced turf seems to get an extra jump in the spring when the turfgrass is flowering."***

---

tor in overseeded winter grasses has not been established. A subtle improvement in drought tolerance may increase the persistence of these grasses during spring transition. This has to be compared to the importance of insect resistance during late winter and spring. If an important event has been scheduled for May in an area where bermudagrass has not yet come fully out of dormancy, this little extra persistence may prove valuable.

The golf course superintendent or the sports turf manager is the individual who must make the decision regarding which turfgrass to utilize at different times of the year. He must weigh the impact of overseeding and spring transition when his facility's



Dragging ryegrass into bermudagrass green with drop seeders. Photo courtesy: O.M. Scott & Sons.

schedule extends late into the fall or spring.

Judging from the increased volume of seed produced for winter grasses, a growing number of turf managers are opting for overseeding. "When I moved to Oregon in 1975, about one million pounds of perennial ryegrass was produced annually," Meyer reveals. "This year production will exceed 100 million pounds." A similar trend can be seen in the number of varieties of rough bluegrass and creeping bentgrasses.

Jacklin is betting that improved varieties

of seeded warm-season grasses will one day take off as cool-season overseeded varieties have done. The company has expanded its research efforts with bermudagrass and zoysiagrass, and has begun to build production on at least one variety of bermuda.

In the meantime, seed producers are working closely with distributors to customize overseeding blends and mixes for particular regions of the country. They have done the same for sod growers, with considerable success.

"Seed breeding and selection is an endless and sometimes frustrating process," Rutgers' Funk ad-

mits. "Pathogens [diseases] keep changing. We need more exploration to find germplasm that fits specific uses, maintenance, and environmental conditions."

If the hunt for better grasses is never-ending for breeders, it follows that learning about improved turfgrasses and their maintenance must also be continuous for turf managers. They must decide which varieties fit their schedule, climate, turf standards, and maintenance program best. The days of managing one type of turf 12 months a year, year after year, are past. ☞

## EASY AS USING A RULER




**LITTLE**  
**MFG INC**  
P.O. BOX 2341  
ABILENE, TEXAS 79604  
PHONE 915/673-7021

**A STRIPER FOR EVERY PURPOSE**  
1-800-777-0249  
SINCE 1956



## MEEKS TO OVERSEE GOLF COURSE CONSTRUCTION

Tracy Meeks has joined Mike Young Designs/Turf Mark Golf Services, Inc., Watkinsville, GA, as its vice president. He will be responsible for overseeing day-to-day operation of the company's golf course construction projects.

Prior to joining the firm, Meeks was the superintendent at Berkeley Hills Country Club, Norcross, GA, for five years. Before that, he was the assistant superintendent for four years at Cherokee Country Club, Atlanta, GA. While at Cherokee, he was involved in the construction of a nine-hole addition to the club's existing 18-hole layout.

Meeks holds a bachelor's degree in turfgrass maintenance from the University of Georgia. He is a member of the Golf Course Superintendents Association of America, the Georgia Golf Course Superintendents Association, the Georgia Turfgrass Association, and the National Golf Foundation.



"Tracy's technical knowledge, combined with his practical experience, make him a perfect fit for our organization," said Mike Young, company president. "Our goal is to design and build golf courses that not only look good and are fun to play, but are also practical and economical to maintain. By hiring people who are turf maintenance professionals, we can guarantee a quality design backed by solid agronomics."

## LOHMANN BREAKS GROUND AT COUNTRYSIDE



Scrapers begin to shape the second 18 holes at Countryside Golf Course in Mundelein, IL.

Ground was broken recently at Countryside Golf Course in Mundelein, IL, for a second 18 holes, designed by Lohmann Golf Designs.

The design calls for nine holes to be completed and open for play by next summer. The second nine is scheduled to open in the summer of 1992. Once the 18 holes are finished, an existing nine holes at Countryside will be renovated and ready for play by 1993.

"By concentrating our efforts on nine holes at a time, we'll be able to complete

the project with minimal interruption of the course and golfers," said Bob Lohmann, president of the design firm.

The new design includes reforestation of much of the area. Wetlands will also be used to add to the overall character and design of the project.

"This new course will be an exciting combination of holes," Lohmann added. "When completed, Countryside Golf Course will be an exciting and challenging public course."

## ELLIOTT APPOINTED CYPRESS LINKS SUPERINTENDENT

George C. Elliott was recently named golf course superintendent of Cypress Links Golf Club in Jupiter, FL. He is replacing Steve Ehrbar, who has accepted a position as superintendent for Lost Tree Village Golf Club.

Elliott previously served as assistant superintendent of Polo Trace in Delray Beach, FL. He has also been associated with Oakmont Country Club in Philadelphia, PA, and Shoal Creek in Birmingham, AL.

A graduate of Michigan State University in turfgrass management, Elliott is a member of the Golf Course Superintendents' Association and the Florida Turfgrass Association.

## VANDEHEY NAMED MANAGER OF THE YEAR

Rippling River, The Resort at The Mountain in Welches, OR, has named Russ Vandehey, its golf course superintendent, as Manager of the Year. Located on the western slope of Mount Hood, the 300-acre resort features a 27-hole golf course, 200 hotel rooms and condominiums, and extensive meeting and convention facilities.

An Oregon native, Vandehey holds a bachelor's degree in horticulture from Oregon State University. Prior to joining the resort, he worked at some of Oregon's top country clubs, including Portland Golf Club, Waverly Country Club, and Oswego Lakes Country Club.

He is a member of the Oregon Golf Course Superintendents Association, the Golf Course Superintendents Association of America, and the Northwest Turfgrass Association.

## CLUB MARK TO MANAGE COUNTRY CLUB

Club Mark Corporation, a recreational properties management firm based in Houston, TX, has been awarded the management contract for Red Fox Country Club in Tryon, NC. The private club opened more than 25 years ago in the Great Smoky Mountain resort area.

In recent years the club has had a series of operational and financial difficulties. Club Mark has assembled a team which specializes in solving these problems.



# We just eliminated your last excuse for buying a converted golf cart.

## Introducing the Cushman® GT-1.

When you can have Cushman quality at a competitive price, there's no reason to accept second best.

The new Cushman GT-1 utility vehicle will outperform and outlast any converted golf cart on the market. Its frame and chassis are stronger and more durable. You'll find a bed

made of 14-gauge steel instead of 16-gauge steel. One-inch axles instead of 3/4-inch axles. And a proven Kohler industrial engine that's more reliable and easier to maintain.

When you need a utility vehicle that's been specifically designed for work instead of one that's been converted from play, contact your Cushman dealer for a GT-1 demonstration. Or call toll-free 1-800-228-4444 for more information today.



**CUSHMAN**  
**BUILT TO LAST**

8076 Cushman Inc. 1989. All rights reserved.  
A Ransomes Company  
P.O. Box 82409, Lincoln, NE 68501

Circle 185 on Postage Free Card



# PARK MAINTENANCE MANAGERS GO BACK TO SCHOOL

**L**ike so many others in the field of sports turf and grounds maintenance management, Duane Frederick doesn't have a lot of time to squander. As Park Maintenance Supervisor II for the city of Modesto, CA, he is responsible for 264 acres of developed community parks, 400 acres of regional parks, and other assorted landscaped areas.

He manages 42 full-time employees, ten temporary employees, and an additional 20 or so persons who are hired as needed for special projects. In his "spare time," he is earning his bachelor's degree in business at California State University, Stanislaus.

His dance card, as they say, is full. However, in 1988 and 1989 the 42-year-old supervisor took one week each year to attend the Pacific Southwest Maintenance Management School in the San Bernardino Mountains of Southern California.

"I wanted to increase my knowledge of park maintenance management," says Frederick. "I also knew it would be a wonderful opportunity to network with people in my profession and share insights."

Sponsored by the California Parks and Recreation Society Park Operations Section and the National Recreation and Parks Association, the school is held at the University of California, Los Angeles Conference Center on the densely wooded shore of Lake Arrowhead. The center is tucked behind a quiet cove, almost hidden from the lake it faces. It is the perfect tranquil environment in which to learn.

The school is open to all green industry professionals, although 90 percent of the students are involved in sports turf or park maintenance management. It is broken into week-long, first- and second-year programs.

Enrollment is limited to 100 students in the first-year program and 50 in the second.

"In the first year, we cover the horticultural end of maintenance management, from irrigation and sports turf management to Xeriscape," explains Bruce Wegner, Manager of Parks and Recreation for the City of San Clemente, who is the immediate past chairman of the school. "We also get into maintenance management systems and communication techniques.

"We try to teach people how to be assertive and articulate," he continues. "That's especially important in the public sector, where you have to justify entire budgets based on your needs. If you can't justify those needs clearly and assertively, you may not get the dollars you require."

The first- and second-year programs are taught to two different sections of students during the same week. Although the actual classes (which run from about 8 a.m. to 9 p.m. each day) and course work last for a combined total of two weeks, the school cannot be finished in less than two years. That provides the students with a year between sections to apply what they have learned.

The students in both sections are required to attend and participate in classes and pass a test at the end of their respective

programs. In addition, first-year students must complete a project that requires each of them to develop a mock management and maintenance program for a hypothetical, five-acre public park. Although some class time is devoted to project work, most of it must be completed on the students' own time after classes.

"It's not a place for someone who isn't serious about learning," Frederick warns. "I think those people who struggled in the school came with the attitude that it was just another conference, and that all they had to do was sit there and listen."

Successful first-year students receive a certificate of completion which allows them to attend the second year. Second-year students receive a certificate of graduation.

"In the second year we build on the basic information provided in the first year's program," Wegner reveals. "We cover maintenance management systems more deeply, including related computer sciences.

"Then we concentrate on personnel and personal management," he continues. "That includes designing and implementing employee training programs, positive discipline skills, employee evaluation and motivation, and written and verbal communication skills. The goal is to enable [graduates] to educate people involved in [their] business, such as workers and customers."

Public perceptions of grounds maintenance and the green industry in general are

*continued on page 32*



The Class of '88 at the UCLA Conference Center at Lake Arrowhead.