

# GOLF COURSE NEWS

THE NEWSPAPER FOR THE GOLF COURSE INDUSTRY

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#### BLAST FROM THE PAST

Donald Ross, or a reasonable facsimile thereof, relates his thoughts on golfers and design during the 50th meeting of the ASGCA. Complete coverage begins on page 43.

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## More graduates chasing fewer jobs?

Assistant positions plentiful; head jobs in short supply

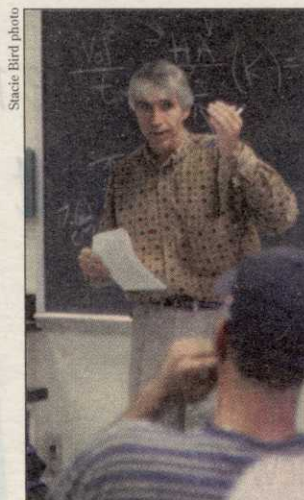
By PETER BLAIS

The demand for assistant superintendents remains strong, which bodes well for the turf school students set to graduate this spring who will fill many of those positions. However, even in the face of a record 468 new course openings in 1995, making the leap from assistant to head superintendent or retaining the top maintenance post remains a challenging proposition.

"We have heard about many more assistant jobs than we have graduates to fill them," said John 'Trey' Rogers, associate professor at Michigan State University. "The only people who seem to be having problems are those who have restricted themselves to a certain geographic area."

Faculty at Ohio State and Pennsylvania State universities echoed Rogers' senti-

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PSU's Dr. Charles Mancino, asst. professor of turfgrass science.

#### TURF SCHOOL REPORT

- How's the job market for mechanics? p. 11
- Complete listing of 2-year & 4-year turf programs, p. 20

As turf grads grow in number, so do worries of saturation

By J. BARRY MOTHES

The number of graduates from collegiate turfgrass programs this year will again be higher than last year. That, along with an increase in two-year degree and certificate programs, has fueled a strong perception there may be too many turfgrass graduates heading into the job market.

"I think there might be a bit of an overload," said William Torello, a professor of turfgrass management at the University of Massachusetts for the past 15 years. "I think there is a saturation level and I think we're real near it — if not at it."

"But almost 100 percent of our people do get placed. They may not all be assistant superintendents right away, but they get work. The golf course industry is certainly becoming loaded with trained people."

The Golf Course Superintendents As-

Continued on page 23

## New player emerges in group buying

By LOU PRATO

ELLICOTT CITY, Md. — A new nationwide buying cooperative aimed at getting major price breaks for golf course owners and superintendents on everything from chemicals to maintenance equipment is seeking its first charter members in the East.

National Turf Cooperative, Inc. (NTC), based here near Baltimore, expects to have at least 250 members signed up when it starts buying seeds, fertilizer, and other such goods from manufacturers and suppliers in October of 1996. NTC will concentrate initially on buying products necessary for the development and maintenance of golf courses.

Continued on page 27



Temporary clubhouses don't have to be unsightly trailers sitting starkly in parking lots. To wit, this clubhouse facility at Hamilton Golf Club in Fishers, Ind.

## Pre-fab clubhouses keep priorities on course

By PETER BLAIS

Golf developers are heeding the advice of course designers and installing temporary clubhouses, allowing the course to establish a reputation and generate revenue before building a first-class clubhouse facility. While the idea might seem a bit self-serving since course architects are paid for the course they design rather than the clubhouse that borders it, few would argue that it is the course rather than the clubhouse that first attracts players to a golf facility.

"Getting the course right and waiting on the permanent clubhouse is a con-

cept I endorse," said course architect David Horn of Architerra PC, a course design firm in Catasauqua, Pa. "You can get a good, prefab clubhouse for \$100,000 or less to get you through the first few years until the cash flow is sufficient to build a permanent one."

In fact, if done right, a prefab clubhouse can be attractive and may suffice much longer than a developer may initially think. Horn said he has sent many clients to see the supposedly temporary facility at Center Valley (Pa.) Club just south of Bethlehem, Pa.

Geoffrey Cornish-designed Center

Continued on page 57



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# NGF report paints rosy development picture

JUPITER, Fla. — the surge in construction activity that began eight years ago reached an all-time high in 1995. According to the National Golf Foundation's (NGF) annual report on golf course development in the U.S.

The report, "Golf Facilities in the U.S., 1996 Edition," shows that 468 courses of various lengths and sizes came on line last year. Further, the report indicates that new course construction has more than doubled over the past 10 years.

The outlook for 1996 is strong.

| Under Construction |     |      |       |
|--------------------|-----|------|-------|
|                    | New | Exp. | Total |
| D                  | 359 | 241  | 600   |
| M                  | 80  | 26   | 106   |
| P                  | 61  | 50   | 111   |
| In Planning        |     |      |       |
| D                  | 271 | 92   | 363   |
| M                  | 75  | 32   | 107   |
| P                  | 60  | 21   | 81    |
| In Development     |     |      | 1,368 |

The NGF report shows there were 820 other courses under construction as of Dec. 31, 1995. This means as many as 450 of these could be coming on line this year, according to Rick Norton, NGF's vice president and general manager of Research and Consulting.

The 468 new courses in 1995 brought the five-year total to 1,912. That's an average of 382 courses a year. Ten years ago the nation was averaging just over 150 a year. This not only eclipsed the previous high of 381 set in 1994, it was also the fifth straight year that — in contrast to the leveling off that's occurred in golf participation — golf course development activity has increased.

More than half (56 percent) of the 468 courses coming on line in 1995 were 9-hole layouts. As a result, NGF analysts look at the 468 as 336 18-hole equivalents. In 1994, just more than 60 percent of the 381 courses that opened that year were 9-holers. This produced a total of 262 18-hole equivalents.

There's a message in the numbers, according to Rick Norton.

"To my mind, the fact that golf course development has not only held its own, but has increased to the extent that it has, is a

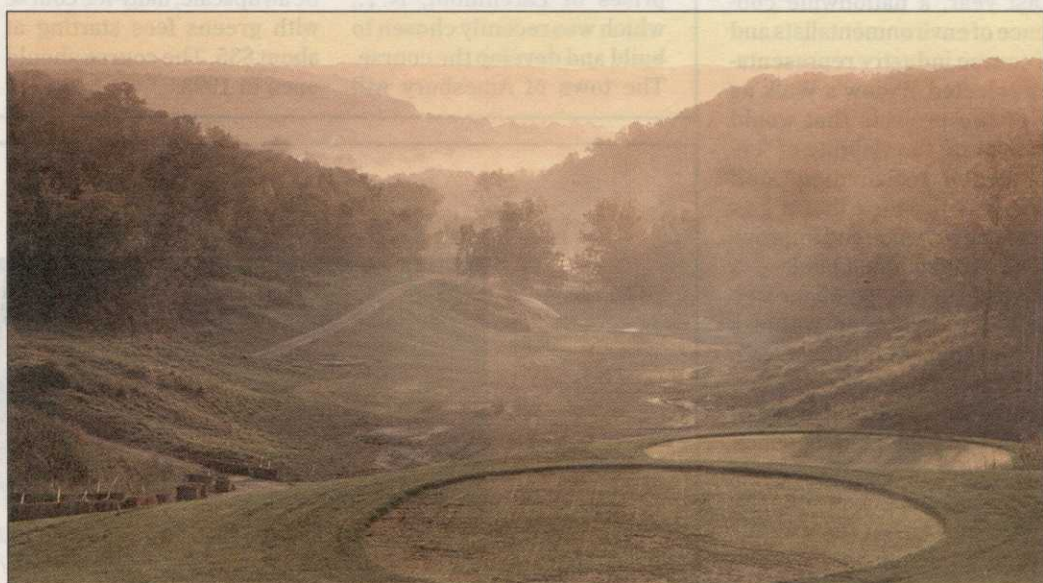
great example of the confidence that both developers and lenders continue to have in the health and future of the game," said Norton.

To further illustrate his point, Norton notes the number of facility owners who are expanding their golf courses these days.

Continued on page 50

## Course Openings: 18-hole Equivalents

|   | 1990  | 1991  | 1992  | 1993  | 1994  | 1995  |
|---|-------|-------|-------|-------|-------|-------|
| D | 126.0 | 170.0 | 165.0 | 174.5 | 190.5 | 242.0 |
| M | 30.5  | 41.5  | 37.0  | 35.5  | 38.5  | 45.0  |
| P | 67.5  | 57.5  | 54.0  | 52.5  | 33.5  | 49.0  |
| T | 224.0 | 269.0 | 256.0 | 262.5 | 262.5 | 336.0 |



### THE GENERAL PLANS JULY OFFENSIVE

The latest signature golf course at Eagle Ridge Inn & Resort in Galena, Ill., *The General*, should open in July, according to Bob Graunke, director of grounds. "The deep freeze endured by much of the country in January was a blessing for *The General* since it stabilized the ground," he explained. Graunke and the others on the development team — co-designers Roger Packard and Andy North, as well as builder Paul Clute & Associates — used pre-germinated bentgrass and blue grasses in order to help set the bent on which golfers will ultimately play.

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## Ground broken at ex-sand pit

SCITUATE, Mass. — Ground has been broken and eyes are set on the Widow's Walk golf course project at a former sand and gravel pit here on the Massachusetts coast. The Michael Hurdzan-designed muni will be one of the most closely observed course construction projects in recent years.

Last year, a nationwide conference of environmentalists and golf course industry representatives selected Widow's Walk as one of two projects that would demonstrate the viability of "environmental reclamation" golf courses — the idea that a golf course can enhance and improve a piece of abandoned land.

A no-pesticide, fertilizer-free zone will be enforced within a 400-foot radius of the town well, which is on the property.

International Golf Construction Co. will build the course, which will meander across the former Boston Sand and gravel site. The site has been vacant since 1975.

Corcoran Jennison Hospital-ity Co. of Boston, operators of Ocean Edge golf course in Brewster, Mass., and Glen Ellen in Millis, have been awarded a five-year, \$1.5 million contract to manage the complex.

Bank of Boston has underwritten a film and video history of the project. The video will include aerial photography of the site before, during and after construction. The course is expected to officially open in 1997.

## Palmer Design comes to New England

AMESBURY, Mass. — Arnold Palmer's first signature course in New England will be on the rolling fields of the former Woodsom Farm here near the Massachusetts-New Hampshire border.

Palmer Course Design Co. and a Florida-based construction firm are part of a team led by Championship Golf Enterprises of Larchmont, N.Y., which was recently chosen to build and develop the course. The town of Amesbury will

seek a 40-year lease on the 221-acre section of the town-owned farm with Championship Golf. The selection marked the end of several years of discussion and false starts over plans to build a course on land the town bought in 1988 to prevent residential or commercial development.

The layout is expected to be an upscale, daily-fee course with greens fees starting at about \$35. The course should open in 1998.

## Mt. Greylock project goes begging

ADAMS, Mass. — The Commonwealth of Massachusetts is still looking for development proposals for a 1,063-acre recreation/residential site — including a possible golf course — at the base of Mt. Greylock.

Massachusetts officials recently issued a revised Request for Development Proposals (RFDP) for the Mt. Greylock site. The RFDP is based on an expanded and fully-approved master plan for the Greylock Center that now allows for a conference center, up to 27 holes of golf and residential development.

Greylock Center is intended to showcase the idea of sustainable development and management techniques and to promote regional economic development in Massachusetts, in this case, the northwestern part of the state.

One of the most significant revisions includes the allowance of residential units, the increase in the potential number of golf holes to 27 and the idea of time-interval ownership. The deadline for submissions of development proposals to the Department of Environmental Management is 3 p.m. on May 22, 1996.



Wildcat Cliffs Country Club  
Highlands, NC



Forest Ridge Golf Club  
Broken Arrow, OK



The Standard Club  
Duluth, GA



Scioto Country Club  
Columbus, OH



Blackwolf Run  
Kohler, WI



Norwich Golf Course  
Norwich, CT



Atlanta Athletic Club  
Duluth, GA



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## Cosmo World scales down plans

SUNLAND, Calif. — Saying it has resolved environmental concerns, Cosmo World Corp. has submitted scaled-down plans for development of an 18-hole public course in the Tujunga Wash area near Lake View Terrace.

Cosmo World shelved plans for an 18-hole layout last year because of the threat to an estimated 40 endangered plants and animals near the course. The company now plans a smaller, 18-hole course and clubhouse, according to Mark Ambruster, an attorney for Cosmo World, a subsidiary of Kajima Engineer-

ing and Construction Inc.

Ambruster told the *Daily News* of Woodland Hills, Calif., "Instead of a PGA-tournament level type of golf course, this is a regular 18-hole golf course that will minimize the amount of turf that needs to be put in and won't disturb any of the surrounding wildlife."

Cosmo still faces opposition from several area homeowners associations. It will need approval from the city Planning Commission this summer for a conditional-use permit. If that happens, Ambruster said the course could be open in 1997.

## CourseCo to manage Crystal Springs

BURLINGAME, Calif. — CourseCo, Inc., a Northern California-based course management company, began operations at the 18-hole Crystal Springs Golf Course on April 1 with plans for a \$3 million improvement program.

CourseCo, which manages Mather Golf Course in Sacramento, Riverside of Fresno and Deep Cliff just down the road from Crystal Springs, will operate Crystal Springs and provide construction

management for Crystal Springs Golf Partners, L. P.

The partnership plans significant capital improvements to the facilities beginning sometime in the second year of occupancy of what will be a 20-year lease with the City of San Francisco Water Dept.

Major planned improvements include a complete clubhouse remodeling, turfing, target greens, a second deck on the driving range, and rebuilt tees and bunkers.

## Calif. firm turns to old tires for water collection

SANTA ROSA, Calif. — Used automobile tires — the ongoing bane of recyclers and environmentalists — are the key ingredient of a new irrigation system devised by a former Chicago industrial engineer.

Robert Hendershot, a holder of 13 patents who founded the Candy Manufacturing Company in Niles, Ill., 32 years ago, came up with the idea of slicing old tires in half like a bagel and layering them open side up 12 to 15 inches under fairways and roughs. By offsetting the layers, more than 90 percent of the surface area has tires underneath.

Hendershot says his Rain Trap System is environmentally friendly in several ways. The cut tires are kept out of landfills and they become shallow bowls that collect water, fertilizer and pesticides. Captured moisture and additives then bloom upward through the soil. Golf courses that use the Rain Trap System, he says, need less water, fertilizer and pesticide.

The first course to use Hendershot's idea was Warshaw Plantation East near Myrtle Beach, S.C., which was built in 1995. Course officials there budgeted for 40 percent reductions in irrigation and fertilization. So far, the soil is holding well and the water use is at the level predicted.

Hendershot also planted The Rain Trap System in another course in Winnipeg, Canada, last year. New courses under construction in Houston and Phoenix are scheduled to have the system installed this year.

Hendershot, 66, came up with the idea several years ago after witnessing a tire fire at a nearby tire recycling center. Extensive research led him to two key conclusions: there is no really good way to dispose of auto tires and people dispose of 250 million tires a year.

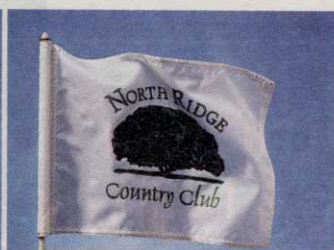
For decades, tires have been burned for energy, buried in landfills, and ground up and used on roadways, but there has usually been an environmental or economic drawback.

One characteristic of tires that stuck in Hendershot's mind was they didn't decompose or rot and would therefore make good containers for dirt, concrete or even water. Hendershot and his partners have formed a Santa Rosa-based company called Tire Farms. Tire Farms uses more than a million tires in building a typical, 18-hole course.

Before its first on-the-job application, the Rain Trap System was planted in a test patch of fairway at the Center for Irrigation Technology at California State University in Fresno. Research found it to be a scientifically reliable, passive, sub-irrigation system to recycle water and additives.



Lancaster Country Club  
Lancaster, PA



North Ridge Country Club  
Fair Oaks, CA



Barton Creek Club & Resort  
Austin, TX



Tumble Brook Country Club  
Bloomfield, CT



The Country Club of Birmingham  
Birmingham, AL



Royal Poinciana Golf Club  
Naples, FL



Governors Club  
Chapel Hill, NC



Bonita Bay Club  
Bonita Springs, FL

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Irving, TX



Ellington Ridge Country Club  
Ellington, CT



Forsythe Country Club  
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Clinton Country Club  
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Salem Country Club  
Peabody, MA



Quail West Golf & Country Club  
Naples, FL



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## Jacksonville park may revert to public course

JACKSONVILLE, Fla. — A public park in Arlington that was once an 18-hole golf course may once again become a golf facility.

For 29 years, the 123-acre property was used as a golf course, most recently known as the Blue Cypress Golf and Country Club.

But the city purchased the site along University Boulevard North in June 1994 with plans to develop Blue Cypress Park, a park that would have walking trails, soccer fields, tennis courts, nature preserve and driving range.

Those plans have never taken off and now a city councilor has introduced a resolution asking the state to allow the city to convert the park into an 18-hole, daily-fee golf course. The city needs state approval because the state provided \$1.3 million for the city's \$2.9 million purchase in 1994.

The plan would allow Steve Melnyk, a former touring professional and Jacksonville-based golf course developer, to convert the park into The Champions Club at University Park.

The plan, however, is still in committee and it is unclear whether it would be acceptable to the Florida Communities Trust board, the group that approved money to help the city buy the land in 1994 on the understanding it would be developed into a public park.

## Price-Smyers project hinges on county sale

CONCORD, N.C. — The first Nick Price signature championship golf course may be built at Lake Concord.

In order for that to happen, Cabarrus County and a developing group called Lake Concord Venture must come to terms on the sale of county-owned property to the group. Lake Concord Venture has offered the county \$2.2 million for 221 acres that the county obtained last summer from the city. The cost of the project, excluding the planned 450 homes, is estimated at \$10 million.

The proposed 18-hole course would be Price's first design with partner Steve Smyers. Ground could be broken on the course by July if the sale can be completed in time.

The site is near U.S. Interstate 85 and the developers say a golf course community would be a natural complement to the development of the Concord Regional Airport.

## Idaho course allied with theme park

NAMPA, Idaho — A 27-hole golf facility called the Ridgecrest Golf Club is part of large recreation and leisure attraction that will eventually include an amusement park and a movie production studio.

Golf course architect John F. Harbottle designed all 27 holes at Ridgecrest, which will be near the famed Snake River in southwest Idaho. The front nine of an 18-hole tournament-caliber course op-

ened in mid-April with the back nine scheduled to open May 24. An executive-length, nine-hole layout is expected to open in August.

When finished, the 27-hole facility will boast 1,800 trees, four lakes and 87 sand and grass bunkers.

Developer Bob Klostman said the park, course, Snake River Stampede events center and several other projects will be marketed internationally.

## Dayton to renovate 36-hole course

DAYTON, Ohio — The city is planning to rebuild all of the tees and greens at the public, 36-hole Community Golf Course here.

The full-scale renovation will take place over the next five years as part of a \$2.75 million restoration plan.

The first step in the project is a \$750,000 reconstruction of the course's 40-year-old clubhouse, which will include work on the pro shop, locker area, restaurant and cart storage area. Work on the clubhouse is expected to start by fall.

Work on the tees and greens will start in August 1997.

The plan calls for work to be done on nine holes each year at a cost of approximately \$500,000 per year. The entire 36 holes would be finished by the year 2001.

The rebuilt tees and greens will bring the heavily played, 80-year-old facility up to United States Golf Association standards for size and construction. The city is expected to announce a golf course architect for the project sometime this month.

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## Renovation slowed by hordes of 'golf poachers'

RICHLAND, Wash. — Sometimes it can be tough to keep golfers off a course, even when it's supposed to be closed until summer 1997.

City officials have been struggling to keep what they describe as "golf poachers" off the public 18-hole Sham-Na-Pum Golf Course, which officially closed March 4 and is set to undergo a complete overhaul. A new course is set to open at the site in summer 1997. Rabid golfers, however, have ignored locked gates and fences since the official closing March 4

and caused an estimated \$5,000 worth of damage to surveying work on the course in preparation for a planned new course and an adjacent development.

The city has since posted "No Trespassing" signs around the course in preparation for the start of construction, scheduled to begin this spring. It is also threatening to enforce the maximum penalty for criminal trespassing on city property, which is one year in jail and a \$5,000 fine.

City officials said part of the problem started in February

when the closing was announced for remodeling. At the time there was enough snow on the ground to prevent a final, sentimental event to mark Sham-Na-Pum's official end. After the snow disappeared, there was a flurry of free golf activity that city officials allowed for a time.

On March 4, however, construction officials closed a gate to the modest, no-frills course. But since then, golf poachers have torn down gates and fencing and pulled up survey stakes while continuing to play golf.

## Guilty plea entered in course case

MEMPHIS, Tenn. — An 18-year-old man pleaded guilty to wounding a vending machine owner during a \$20 robbery last year at the Davy Crockett Golf Course.

Derrick T. Alston pleaded guilty in Criminal Court as he was about to be tried for attempted first-degree murder, aggravated robbery and four counts of aggravated assault. He faces prison time of between 13 and 74 years. Alston, who had no prior criminal

record, was scheduled to be sentenced by the end of April.

Alston shot George Warren with a double-barrel shotgun after he and five other robbers stormed the clubhouse at the Davy Crockett Golf Course in North Memphis on Feb. 15, 1995. Warren was also shot twice with a handgun and struggled with one of the robbers. Warren survived the incident and is still undergoing rehabilitation and faces further surgery.

## Kern-designed track christened

HARTSBURG, Mo. — The new Eagle Knoll Golf Course, an upscale, daily-fee, 18-hole layout, opened in early April.

Pat Kelleher, head golf pro at Eagle Knoll, said the course, designed by St. Louis architect Gary Kern, has already been nominated for Golf Digest magazine's "Best New Courses of the Year."

Edward Bode of Jefferson City is the primary investor in Eagle Knoll and will act as manager for the golf course. The course was developed with the average golfer in mind. Greens fees are \$19 on weekdays and \$25 on weekends. Eagle Knoll also allows golfers to walk the course at no extra charge and does not require a caddie.

Eagle Knoll is located between Jefferson City and Columbia near the center of the state.

## Graham-Panks open Grandover

GREENSBORO, N.C. — The Grandover Golf Club, a Koury Corp. development featuring two 18-hole, daily-fee courses designed by former United States Open champion David Graham and partner, the architect Gary Panks, opened for play in late March.

The entire 7,100-yard East Course and nine holes of the 6,800-yard West course are open for play. The final nine holes on the West course are scheduled for completion next spring.

### CORRECTIONS

Because of a typesetting error, there was a mistake in April's Management story entitled, "National Golf Foundation offers customized research service" [page 51]. Details regarding this service can be had by calling the NGF 1-800-733-6006.

Because of a reporting error, there was a piece of misinformation in April's page 1 story entitled "Griffiths, Brauer face off on course costs." Jeff Brauer's firm GolfScapes is located in Arlington, Texas.



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## Public-access Bethpage on short list for U.S. Open

PLAINVIEW, N.Y. — The Black Course at Bethpage State Park on Long Island, a public layout continually considered among the best courses in the country, is on a short list of potential host courses for the 2001 U.S. Open.

U.S. Golf Association and New York State Parks Commission officials toured the course in late March along with golf course architect Rees Jones, who has done detail and renovation work on several U.S. Open sites.

USG Executive Director told *Newsday* the USGA would be considering several factors before deciding whether the Black Course would be recommended to the USGA's executive committee in June, including the cost of bringing the course up to U.S. Open standards. The USGA would be responsible for the cost of the course improvements. New York state park officials have reportedly said they are interested in hosting the tournament provided the USGA paid for course improvements.

If officials from the state and the USGA can reach agreement, it would be only the fifth time since the Open was first played in 1895 that it would be held at a public course. It would be the first time

the Open would be held at a public course not affiliated with a luxury resort, like Pebble Beach. The other courses that have expressed an interest in hosting the 2001 U.S. Open are all private courses.

The Black Course is one of five layouts at Bethpage State Park. If the Open were to be held at the Black Course, the park would probably have to be closed for weeks and the Black Course itself shut down for longer, possibly many months.

Fay reportedly initiated the idea of having the Open on an

accessible, public course other than luxury spots like Pebble Beach. He told *Newsday*, "It's such an expansive facility, and the strength of the golf course makes it such an appealing site." He said the park's closeness to Manhattan, its large parking areas and adjoining courses where hospitality tents could be located are all pluses.

New York Parks Commissioner Bernadette Castro said, "We see public golf as the future of golf, and the exposure we would get would be tremendous."

## Miss. casino to include 36 holes?

ROBINSONVILLE, Miss. — Two new 18-hole golf courses are part of the plan for the massive, new Grand Casino Tunica complex near the Mississippi River.

The 340,000-square-foot casino — which sits on the edge of an oxbow lake created by the Mississippi River — will be the largest dockside casino in the world when it opens June 24.

The complex, which will

offer four separate gambling halls, is only one facet of the development Grand Casino Inc. has planned for the 2,200 acres it owns between Old U.S. 61 and the Mississippi River. Company officials eventually hope to have two courses, outlet store, theme park and townhouses. They said course construction could start in a year or two, depending on the success of the casino and hotel complex.

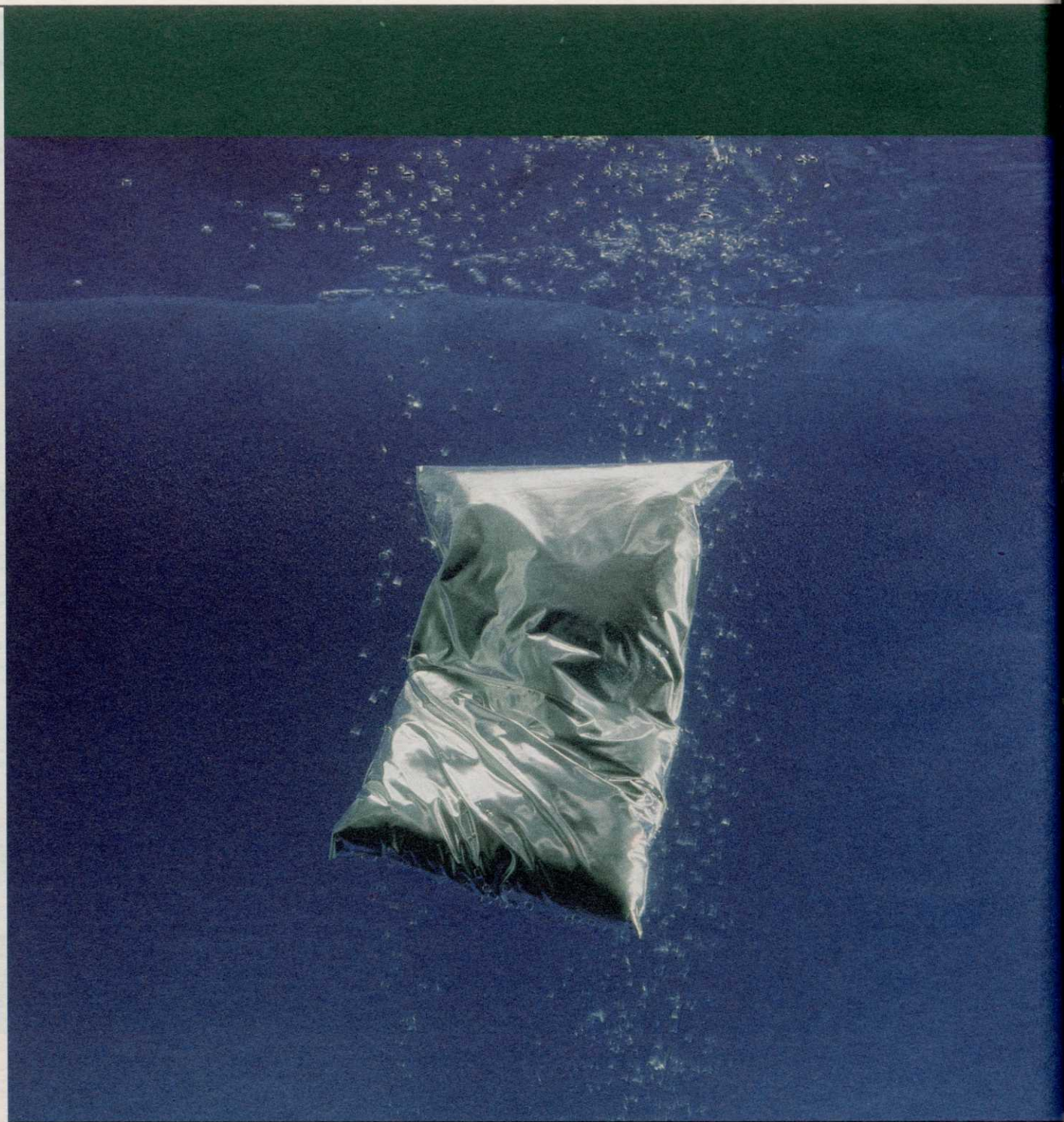
## Consultant says county courses need profit motive

BELLEVILLE, N.J. — A consultant hired to study the three Essex County golf courses has recommended creating a private, not-for-profit corporation to manage the facilities and keep them profitable and attractive.

After conducting a four-month study of the county's three public courses — Weequahic in Newark, Hendricks Field in Belleville and Brendan Byrne in West Orange — Linnie Cook, executive director of the Baltimore Municipal Golf Corporation, recommended Essex use Baltimore's golf organization as a model to turn Essex's golf facilities into profitable ventures.

The private, not-for-profit golf corporation would be run with an executive director with supervision from a volunteer board of directors appointed by a county executive and freeholders. With a private, not-for-profit designation, all revenue generated by the golf courses would be used toward making improvements to courses instead of being placed into the county's general fund and used as revenue to balance the county budget.

The proposal will be considered by freeholders for the 1997 season. The plan could not be implemented this year because the 1996 budget has already been compiled. Cook told freeholders it could take about eight months to set up a private, not-for-profit corporation.



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## New 18 slated for North Dallas

McKINNEY, Texas — The already golf-rich McKinney area north of Dallas will get an additional boost soon. The Senior Tour Players Development Inc. of Boston has announced a plan to build a unique, new 18-hole daily-fee golf course at Stonebridge Ranch, a private residential golf community.

The design process will allow six professional golf legends to each design three holes. Those committed to the project include Sam Snead, Bob Goalby, Chi Chi Rodriguez, Miller Barber,

Orville Moody and Bruce Lietzke. They will be assisted by Britt Stenson of International Management Group.

The Senior Tour Players Development Inc., will own, design, construct, manage and operate the 18-hole championship-caliber course and its amenities. Construction is scheduled to start this fall with the course scheduled to open in late fall 1997. Stonebridge Ranch already has two private, 18-hole courses, a Pete Dye signature layout and another by Arthur Hills.

## ING conference set for Fripp Island, May 19-23

FRIPP ISLAND, S.C. — The International Network of Golf (ING) Spring Conference and Championship has a new date and a new home for 1996. The sixth annual conference is set for May 19-23, here at Fripp Island Resort, located on the Atlantic Ocean north of Hilton Head and east of the historic town of Beaufort.

The International Network of Golf is a 600-member networking organization that brings the golf business community together with the media. Membership is open to all segments of the golf business and media. Also, a new consumer membership category is being formed.

The conference attracts some of the top names and companies in the golf industry, leaders from

the governing bodies and golf and travel media from around the world. Attendees at recent conferences include Charles Mechem, Tom Fazio, Rick Smith, Gary Adams and John Ashworth.

"I didn't realize how diverse and important an organization ING was until I attended a conference," said golf course architect Fazio. "There is a definite need for an organization like ING."

Fripp Island is three and one-half miles in diameter and boasts two 18-hole golf courses and various types of accommodations, including townhouses, cottages, villas and condominiums. The newest of the golf courses is a Davis Love III design that opened in late 1995 [GCN January 1996]. For information, call 407-328-0500.

## Rocky Gap price tag jumps \$16m

CUMBERLAND, Md. — Details and a deadline have surfaced for a proposed Jack Nicklaus-designed golf course and convention center at Rocky Gap State Park. Project backers are reportedly seeking \$53.1 million to build the facility compared to \$35.8 million for the 1995 version of the plan. They also say that June 1 is their self-imposed deadline to complete the financial package.

A secretary with the state Department of Natural Resources, which owns the park, said if negotiations with bond buyers are underway or if an agreement appears possible, the state won't stop the project if the June 1 deadline arrives. But if nothing is underway by June 1 it will be scrapped.

Project supporters have been trying since 1983 to build a Jack Nicklaus-designed, 18-hole course and quality resort at the popular park east of Cumberland. The financial plan has been close to completion several times in the past decade. It has gained support from three different governors, but final signing has been elusive.

## Early Hawaiian golf chronicled

WAIHAWA, Hawaii — Long before \$5 million golf courses and Japanese investment came to Hawaii, an Army officer named J. R. "Red" Uldrick and 10 others banded together in the late 1950s to build the International Golf and Country Club, the first golf course built in Hawaii after World War II. The International Golf and Country Club, which started as a nine-hole course, later became the 18-hole Hawaii Country Club.

Uldrick, now an 82-year-old retired Army officer, has written about his pioneering years on the Hawaiian golf course scene in the recently published "Golf Balls and Monkey Pods: A Narrative History of the Hawaii Country Club." The 380-page book — which was a six year project — includes pictures and a detailed account of Uldrick and his wife Vena's experiences at the club.

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## Asian market remains strong

**J**ust returned from Singapore where the annual Golf Asia Exhibition was held for the fifth time and, from all accounts (or all those that matter, meaning exhibitors), this show ranks with the best in terms of foot traffic.

At Golf Asia, the trade show floor is divided into a Commercial section (where exhibitors sell golf balls, clubs and shirts) and an Industry section, featuring maintenance equipment. The Industry section enjoyed strong, qualified attendance for three of the four days, while the Commercial side was consistently packed, especially over the weekend. Good news for exhibitors, to say nothing of Golf Asia '96 organizers, International Management Group of Cleveland and Singapore-based Connex Private Ltd.

Despite the show's apparent success, expect some changes in 1997. For example? Well, architects will likely move from the Commercial to the Industry side next year, as designers more naturally fit in with mowers than titanium shafts. However, there may be fewer architects exhibiting in 1997. Why? The Southeast Asian market has matured to the point where developers needn't attend trade shows to discover which architects are working in the region. Savvy developers — and there are an increasing number in Asia-Pacific — already know who the architects are.

Golf prospects in Asia-Pacific remains strong as new markets are emerging faster than older markets fade away. A good sign. Further, these older markets refuse to crash and burn. Rather they are downshifting from white-hot development markets into more mature, dependable maintenance-driven markets.

The Philippines is the new hot spot, as virtually every golf course architect active in Asia-Pacific is either working or looking for work there. India is running a close second, with Vietnam and Indonesia still developing courses at a strong pace.

China remains the mystery guest. The sheer numbers there — people and dollars — prompt many to salivate almost continually. But others remain dubious, skeptical of the



Hal Phillips,  
editor

Continued on page 49

## In terms of genetic advances the future is definitely now

**R**emember all those old jokes about what you get when you cross a rhinoceros with a banana tree, or a giraffe with a blowfish? Well, we're there, at that very point in man's history when he can play creator (lower-case). My favorite for instance is that geneticists actually have inserted firefly genes into tobacco to give us that suave day-glow effect.

This is beyond Orwellian. If we were discussing something other than turfgrass, this could get scary. Thankfully, I think our friends at the turfgrass genetics labs won't be causing the trouble for mankind that may possibly be coming out of the hospital and animal laboratories of the world. There are no Dr. Frankensteins here, methinks; and, therefore, the golf industry can rest easy.

A whole new turf world has opened up — propelled into the future by extraordinary scientific advancements borrowed from other fields of research.

You want herbicide-resistant bentgrass? It exists, is growing in the fields, and will be on the market before you know it. You want dwarf turfs? Cold-resistant? Drought-tolerant? Salt-tolerant? You can hold your breath for the wait — we'll get them that soon. With funding in hand, it will take three to five years maximum, says Dr. Mariam Sticklen of Michigan State University (see story page 15). And that is but a mere millisecond in the normal timeframe of turfgrass development.

How important is this new world of genetic research in what Dr. Sticklen calls the Green Revolution? She tells this story of another revolution from the 1830s: The mayor of New York writes to President Jackson, saying, "Dear Mr. President: There is a new revolution called the railroad industry. It has enormous vehicles called trains that move at the breakneck speed of 15 miles per hour. Not only do they make fire in farms, but they frighten cattle and women and children." The mayor asks the president to stop the revolution.

"Mr. Jackson did many stupid things," says Dr. Sticklen, "but,

Continued on page 12



Mark Leslie,  
managing editor

## Letters

### IN DEFENSE OF ALGAE FANS

To the editor:

I am confident that superintendents will continue to feel comfortable in sharing ideas through your "On the Green" column. Freely comparing maintenance practices in the interest of propelling our profession forward and simply helping each other out is one of the many facets of our profession that make it unique. I have read many articles, including some in your publication, that have been very helpful. Some, of course, can not be used on every golf course, or in every situation.

Mr. Ray Kimmel of Parkway Research, hopefully realizes the importance of open discussion of new ideas, knowing they may not work in every application. Mr. Kimmel, therefore, was out of line to completely disregard the use of a fan to help combat algae problems (*GCN, April, page 10*). In giving Mr. Kimmel the benefit of the doubt, I am sure he knows the fan works in many instances — and what an opportunity for some free advertising!

Jeff Case, CGCS  
Quail Ridge Golf Course  
Memphis, Tenn.

### WALKING SHOULD BE A MATTER OF CHOICE

To the editor:

I just finished reading the column, "A good walk missed ...,"

by J. Barry Mothes in the March issue of *Golf Course News* and couldn't agree more. Walking is one of the fundamental traditions of the game of golf, and it's inconceivable that more golf course developers, owners and operators can't figure out a way to maintain cart revenues while enhancing customer service.

Last spring, Greenwood Development Corporation announced an unrestrictive walking policy on all three of our courses at Palmetto Dunes — the Robert Trent Jones, George Fazio and Arthur Hills — as well as our Robert Cupp course at Palmetto Hall Plantation. Our guests simply pay one fee, whether they take a cart or walk, so there's no lost cart revenue. No one has complained about the one-price, ride-or-walk policy. In fact, they appreciate the fact that instead of saying "no" to walking we can now say "yes" ... anytime.

Speed is not the issue; I agree with you that the pace would be quicker, because it's usually the better player that wants to walk. As for volume, our courses that allow unrestricted walking play more than 160,000 rounds a year. The key is customer service ... and preserving the traditions of this great game.

Brett Borton, Director  
Advertising and P.R.  
Greenwood Development Corp.  
Hilton Head, S.C.

### THE NTEP NEEDS YOUR HELP

To the editor:

Just this week, with the presentation of the FY97 budget by President Clinton to Congress, the United States Dept. of Agriculture (USDA), Agricultural Research Service (ARS) canceled its funding of the National Turfgrass Evaluation Program (NTEP) effective Oct. 1, 1996.

The USDA, ARS apparently considers the U.S. turfgrass industry a very low priority because with this action, the USDA canceled essentially its only funding in support of the turfgrass industry. If this decision is not reversed, the USDA will have severed ties to the turfgrass industry after more than 70 years of financial support.

The good news is that there is still time to reverse this decision. The USDA, ARS needs to know the following:

1. Turfgrass is a \$30-35 billion industry in the U.S.

2. The turfgrass industry is growing faster than any other segment of agriculture. Many states including Florida, Maryland and North Carolina have documented that turfgrass is their number one or two agricultural industry.

3. NTEP fits perfectly into USDA objectives such as Integrated Pest Management and Sustainable Agriculture (reduction of inputs while maintaining quality). NTEP is an excellent

## MORE LETTERS, PAGE 14

example of how private industry, state universities and the federal government can cooperate to address critical issues in a cost effective manner.

4. Much positive publicity has resulted from past USDA support of turfgrass research and the NTEP. This publicity is crucial to a positive image of USDA among a growing urban population.

If you are interested in saving this program, we would appreciate you contacting your senators and congressmen and telling them you support turfgrass research funding by USDA. Also, the following individuals within USDA need to hear from you:

**Secretary Dan Glickman**, USDA  
Jamie L. Whitten Federal Bldg.  
Room 200A  
14th & Independence Ave. S.W.  
Washington, DC 20250  
Phone 202-720-3631  
**Floyd Horn**, USDA, ARS Administrator  
Room 302A  
14th & Independence Ave. SW  
Washington, DC 20250  
202-720-3656  
**Dr. Edward Knipling**  
Deputy Administrator  
USDA, ARS, NPS  
BARC-West, Bldg. 005, Room 125  
Beltsville, MD 20705  
301-504-5084

If you have any questions, please feel free to contact NTEP by phone (301-504-5125), fax (301-504-5167) or via the Internet (kmorris@asrr.arsusda.gov).

Kevin Morris  
National Director, NTEP  
Beltsville, Md.

# GOLF COURSE NEWS

THE NEWSPAPER FOR THE GOLF COURSE INDUSTRY

**Publisher**  
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**Production Manager**  
Joline V. Gilman

**Circulation Manager**  
Brenda Boothby

**Editorial Office**  
Golf Course News  
Box 997, 38 Lafayette Street  
Yarmouth, ME 04096  
207-846-0600; Fax: 207-846-0657  
hphilip@biddeford.com

**Advertising Office**  
**National Sales:**  
Charles E. von Brecht  
Box 997, 38 Lafayette Street  
Yarmouth, ME 04096  
207-846-0600; Fax: 207-846-0657

**Western Sales:**  
Robert Sanner  
Western Territory Manager  
2141 Vermont  
Lawrence, KS 66046  
913-842-3969; fax: 913-842-4304

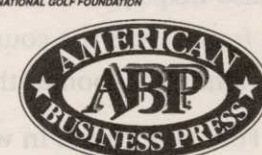
**Marketplace Sales:**  
Diana Costello-Lee  
207-846-0600; fax: 207-846-0657

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GOLF COURSE NEWS



## The job market for mechanics is good, but it could be better

By JOHN R. PIERSON

There is no doubt that the hottest market in the golf industry today is for properly trained golf course mechanics. Because of the expense and sophistication of today's turf care equipment and due to the small supply of properly trained technicians, it is a job seeker's market.

Last year, 25 students graduated from our 1-year, college credit program in Turf Equipment Management, and we received more than 70 job offers. The situation looks about the same for this year's class.

By the way, are these people golf course mechanics, turf equipment technicians, or turf equipment managers? At Lake City Community, we prefer the latter title because we feel the title "turf equipment manager" better represents what the golf industry wants.

Golf Courses are looking for people who are about 50 percent manager and

50 percent mechanic. A turf equipment manager (TEM) has to know about shop design, shop management, how to organize a parts room, how to keep a reasonable inventory of parts, how to order parts properly, how to set up preventive maintenance programs, how to use a computer, and how to train equipment operators and assistant mechanics, as well as perform mechanic tasks. It is specialized, mechanics-requiring training that, unfortunately, is not offered at many schools — this is not auto mechanics or small-engine mechanics.

We've had turf equipment management at Lake City Community College since 1973. In 1988, we moved into a 15,000 square foot building designed specifically for this program. The building is an excellent facility unlike any that I am aware of in the country. Our "secret weapon," however, is our excellent faculty team consisting of program coordinator, Professor Ed Combett, and professors B.J. Cannon and Jim Lones. It is their understanding of and dedication to the golf industry and the management concepts they teach that make our program work.

There need to be more good TEM

Continued on page 13



John Piersol

John R. Piersol is chairman of the Division of Golf Course Operations/Landscape Technology and Turf Equipment Management at Lake City (Fla.) Community College. He can be reached at 904-752-1822.

## New course development forces older facilities to keep up with 'Joneses'

By JAY C. LASSITER

New golf courses are opening at unprecedented rates across the United States — more than 1,500 since 1992. Most of these are in the public play and municipal segments. While new course openings are occurring across the U.S., the bulk of this development has occurred in the Midwest and Southeast.

Until recently, these areas of the country needed new courses to support increasing demand. However, a new trend seems to be evolving. The number of new golfers are not keeping pace with the number of new golf courses. Now golfers can choose where they play golf and, because they are not spending additional discretionary income to play golf, there isn't enough greens-fee revenue to go around. Many courses will feel the pinch, prompting them to take action.

I call this challenge the "Keeping up with the Joneses" phenomenon. Course "A" has had a loyal golfer following and reasonably stable greens-fee revenue for years. Course "B" opens down the street with a fancy clubhouse, a challenging

Jay C. Lassiter is national sales & marketing manager for Golf at The Toro Company's Irrigation Division, based in Riverside, Calif.



Jay Lassiter

course design with a signature name and wall-to-wall green turf. Golfers try Course "B" and many like the aesthetics and amenities enough to migrate some, if not all, of their discretionary spending there. Course "A" now has a significant revenue problem and no simple solution.

Bottom line: Invest in order to keep up with the Joneses.

This very scenario happened at Middletown Country Club just outside of Philadelphia.

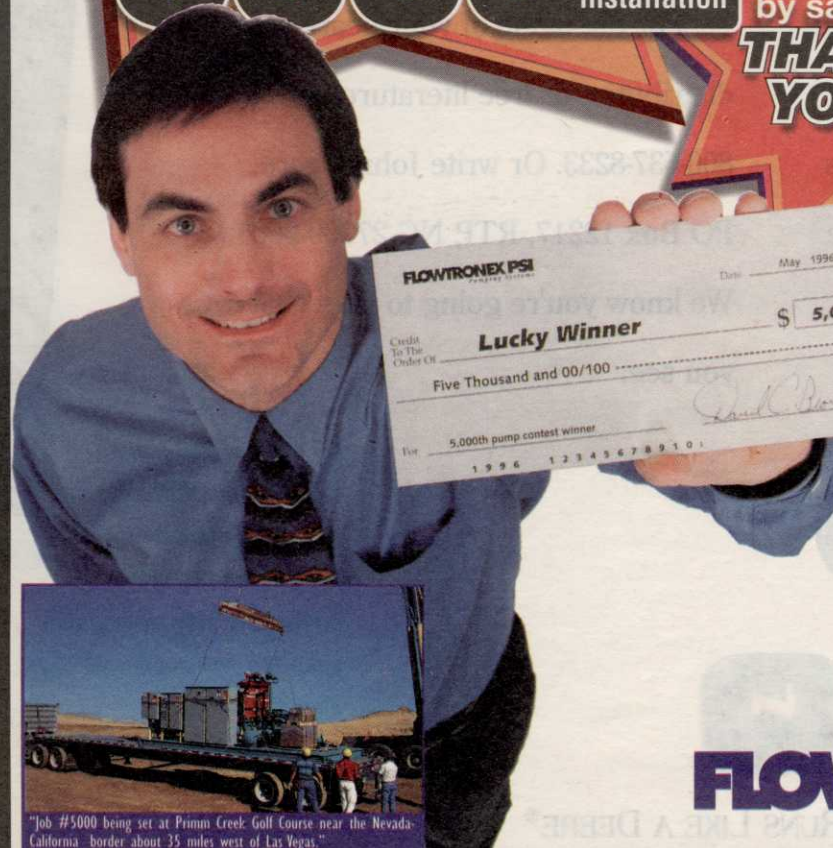
"Several high-end daily-fee courses opened nearby within the last couple of years and we were losing some greens-fee revenues," said Sean McHugh, regional agronomist for Club Corp. of America, which manages the course. "We made the decision to upgrade our irrigation system in order to grow healthier and more beautiful turf."

Golfers are looking for an experience. The experience involves a combination of factors that include, but are not limited to, friendly personnel, a challenging yet playable track, beautiful, healthy turf and high-quality amenities. There are several options to achieve these experience factors. Let's focus on two related to the course itself.

### Option 1: Golf Course Re-Design

It is remarkable to witness the transformation of a course under the skilled hand

Continued on page 12



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## Lassiter comment

Continued from page 11

of a professional golf course designer. The end result enhances the golfer challenge, freshens the look of the layout and makes it more playable and enjoyable. The additional greens-fee revenue can be substantial. This option requires significant capital investment, moving dirt and, often, shutting down the course.

### Option 2: Irrigation System Renovation

Updating the irrigation system costs much less than re-designing the course, yet can have a significant effect on attracting golfers back to an established course. Although this still requires a capital investment, it is much less than moving tees and reshaping fairways and greens. Optimally spaced sprinklers create uniform water coverage, eliminating brown spots. And central control optimizes the watering window, allowing more play time.

Ultimately, though, powerful central irrigation control provides flexibility in system programming and adjustments ensuring healthy, beautiful turf.

Televised golf has created an expectation among golfers that anything less than wall-to-wall, green grass is unacceptable. Irrigation systems often can't support that. After renovation, courses have enough sprinklers, along with better control capabilities, to meet increased expectations while staying within the operating budget.

It's all about having the right irrigation design and getting the right system. But how do you get the right design and system? The best bet is a qualified irrigation consultant who can evaluate a course based on a superintendent's requirements; redesign the system and act as the golf course's agent throughout the entire process.

Manufacturers today are recognizing the trend toward golf course renovation in their product development efforts. Toro has led the way with reliable wireless central irrigation control systems — more than 800 have been installed in the U.S. alone. We continue to expand the market with the latest in that technology: TouchNet.

New golf course openings are exploding in the U.S. The real effect of 1,500 new golf course openings since 1992 may prompt existing golf courses to evaluate whether or not it is time to renovate. "Keeping up with the Joneses" is serious business for the course losing revenue to its competition down the street.

Manufacturers have the products. Designers and irrigation consultants are available to help. The next step is for superintendents to evaluate the benefit of updating their golf course to entice golfers back to their course so they can recapture precious greens fees.

## Leslie comment

Continued from page 10

happily, he did not listen to the mayor of New York."

The rest of the rail travel revolution is history. Now, superintendents and others in the golf industry can simply sit and wait for the results of this Green Revolution. Some of the fallout may be very interesting.

"This is a very technocratic area," said Dr. Michael Kenna, director of Green Section research for the U.S. Golf Association. "It's very technical, but with a lot of bureaucracy. For every scientist there are two lawyers standing behind him. The

biology and biochemistry is easier than the law regarding it.

"Whoever can learn the most, the fastest, and patent significant parts of it will be able to springboard into the future. That's the race. If you figure out all the genes that affect, say, drought stress, do you own it for other applications like corn?"

Just what we need, right? — more work for lawyers.

For those in turfgrass — the poor sister to farm crops — the problem is funding.

"If it were corn..." Dr. Sticklen lamented.

Well, it's not corn. But those universities and companies that get the fast jump

could reap a huge harvest, in both seeds and money, in the years ahead.

Let's just pray no one splices grass's green gene into a bluejay.

...

Pete Dye and Jack Nicklaus could have been comedians playing off each other — Nicklaus the straight man, Dye the Jerry Lewis type.

Both men spoke on Pinehurst #2 at the 50th anniversary meeting of the American Society of Golf Course Architects at Pinehurst, N.C. (see full coverage starting on page 23).

After Nicklaus referred several times to

Continued on next page



ROBBIE HELLSTROM TALKS:

## UTILITY VEHICLES

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NOTHING RUNS LIKE A DEERE®

Director of Golf and Superintendent Robbie Hellstrom credits his fleet of John Deere equipment with helping him open the golf course 40 days ahead of schedule.



## Leslie comment

Continued from previous page

his winning the North and South Open at Pinehurst in 1959 when he was 19 years old, Dye said: "I never made it past the first round of the North-South. It's kind of hard to follow a fellow when you know you're just 20 Majors back — and time's running out."

"In 1946 or '47," he said, "I was playing a round, probably the practice round because I hadn't been beaten yet... I was introduced to Donald Ross and J.C. Penney. Later, the guys all talked about how we had met J.C. Penney, but I don't remember one person say they had met Donald Ross."

Speaking of Tour players getting involved as golf course design consultants, Nicklaus said: "I started out with Pete in '67. I went through it in a little different fashion then a lot of these guys do. I made 23 trips to Harbour Town and Pete never did pay me a dime."

Dye interjected: "You got what you were worth."

Laughing, Nicklaus continued: "I was trying to learn and do some things. The guys today don't all do that. They're out there working on the first day, but they don't go through the rest of it."

"You came out to The Golf Club more than that," Dye said.

"No," Nicklaus said, "I came out there three or four times, just to keep you from ruining my four holes."

...

Dye remembered being on a train and meeting a man who had played Pinehurst three times. "He told me, shot by shot, about his rounds of 107, 109 and 113," Dye said. "And," he said, "the greatest thing about that place: I never lost a golf ball." Well, that really impressed me, it still does, and I feel badly about all the golf balls that everybody's lost on the courses I have built."

Thanks, Pete, I'll accept that sorrow on my personal behalf.

## Piersol comment

Continued from page 11

programs around the country to meet the huge demand.

Many schools don't want to start such a program for such perceived reasons as: it is too expensive to operate; there really aren't many jobs; the jobs are low paying; and it doesn't have the prestige of starting a turf program. (The latter is a whole other issue. What is a turf program? It is any school that has one turf course, or maybe two?)

When I hear these reasons, I know such schools are not really in touch with the golf industry. The golf industry will help a school start a program although, again, the right instructor who knows how to build relationships with industry is critical.

As superintendents are aware, the job market is huge and the pay scales we see are excellent. In Florida, an experienced, property trained turf equipment manager can earn \$40,000 to \$50,000 and above. Not bad!

Prestige? Well, most superintendents will quickly admit the "right-hand man" on their golf course management team is the turf equipment manager. This position is now a skilled, professional position offering excellent career opportunities.

The biggest problem today is the general public really knows nothing about this specialized mechanics field. That is why more people aren't seeking the training and why school officials are often confused about the potential of this career.

Superintendents across the country can help! Imagine if every local superintendent chapter across the country established a Recruiting Committee with the objective of getting superintendent volunteers into area high schools to explain the opportunities in the golf industry as a turf equipment manager. If this were to happen, it would be possible to get the word into a majority of the high schools in the U.S. Done year after year (like any marketing), this would create tremendous demand for this training. Informed students, and their parents, would then put pressure on local community colleges or vocational schools to offer the program.

Superintendents could do a great service for themselves if they would do the above.

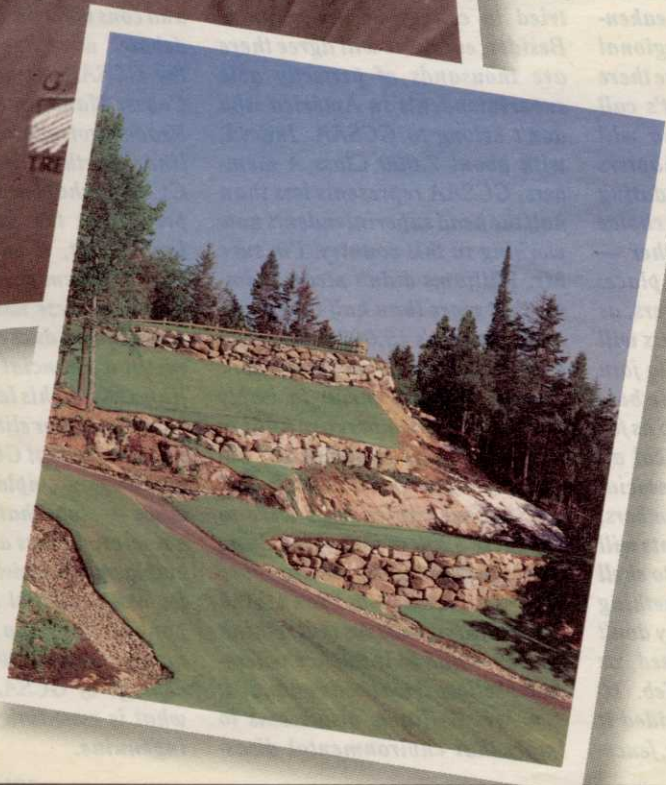
The market for good, properly trained turf equipment managers is hot! In my opinion, it will be that way for quite a few years. It is a segment of the golf industry deserving of much more attention.

We have 26 students graduating from our Turf Equipment Management program May 3. These students should really go out as assistant technicians working under a skilled turf equipment manager.



Architect Thomas McBroom designed Mont-Tremblant, Quebec's LeGant golf course, to fit naturally on the land nature provided.

The new golf course is another addition to Tremblant's world-class four-season resort.



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# Letters

## MODEST PUBLIC COURSE OWNERS ARE 'THE REAL HEROES'

To the editor:

Hooray and three cheers for Mr. Ed Schnurr, the owner of Gun Ridge Golf Course in Hastings, Mich. [Letters, April GCN]. His response to the Nicklaus February 1996 Guest Commentary was pure and right on the mark.

I have been in golf all my life as a club professional, owner of a 9-hole mountain course and custom golf club builder. I can tell you that the many people I know in golf are of one collective opinion on the work of Mr. Jack Nicklaus. This common-sense view is of a man who designs and builds the most blatantly over-elaborate course that he can in order to extract the largest fee. These courses are impractical and very costly to maintain. Also, if you are not scratch or better you are not in for fun afternoon.

All this aside, it is very apparent that the accumulated wealth of this man has completely removed him from the reality of millions, who have an annual recreational budget of two to five hundred dollars. It is a flat shame that this man's outstanding playing record is allowing him to be a trendsetter in an area where he has little knowledge at all. This area is, of course, public golf — and guess what? You don't need to spend millions of dollars building one golf course and move tens of thousands of yards of earth in order to have a pretty, pleasant and enjoyable course to play on!

In this "culture of excesses"

that we live in, the real heroes of golf are the Ed Schnurrs of this world and not "the big bucks accumulators".

Douglas W. Jetter  
Clayton, N.C.

## RYEGRASS CROP SUFFERS

To the editor:

A series of unrelated, detrimental events in Oregon's Willamette Valley during the past few months has thrown the prospects for an acceptable 1996 perennial ryegrass crop into a tailspin.

Strong demand over the past two years has sent production and consumption numbers soaring, with prospects that most warehouses will be empty of any carryover stocks by June of this year. This will place unusual pressure on the 1996 crop which looks like it will not be sufficient to supply the demand that has developed over the last several years.

Troubles started last fall, when 3-year and older stands of perennial ryegrass began to show injury due to the activity of soil residual herbicides, the effects of which were amplified by weather extremes after planting. Oregon State University extension service reported at that time that their estimates were that 20 percent of the established perennial ryegrass production fields were severely injured. Later, the worst infestation of "slugs" that the valley has ever seen attacked part of the crop with very few controls available in time to prevent damage. Whole fields of perennial

ryegrass were completely decimated by the slugs and had to be plowed.

In early January, the herbicide/slug damage had been determined to encompass the entire production area in the Willamette Valley. Estimate at that time were that 50 percent of the crop was in excellent condition, and the other 50 percent appeared to have anywhere from 10 to 90 percent damage!

As if this weren't enough bad news, the great flood of 1996 occurred the first week of February. The Willamette River, which is one of the few rivers in the world that flows south to north, was deluged with over 10 inches of rain and melting snow. This created the worst flooding in 30 years, with hundreds of millions of dollars in damages to property, livestock and production fields of all agricultural commodities. Eighteen Oregon counties were declared disaster areas, with over 750 road closures due to high water.

Post-flooding inspection of fields revealed a mixed bag for damages. If a field was along a river that overflowed its banks, it depended how long the field was underwater as to the depth of the silt deposits. Some fields that were completely covered in silt already had re-growth showing through after the water had receded. Actual flood damage appeared to be minimal with some spotty. But when coupled with the earlier chemical and slug damage, a pall has been cast over the remaining potential for

the 1996 harvest.

Even with ideal conditions between now and harvest, we are quite sure that perennial ryegrass supplies will be extremely tight, and prices will be trending stronger and higher than they have for years.

Steve Tubbs, president  
Turf Merchants, Inc.  
Tangent, Ore.

## GRASSCRAFT RESPONDS

To the editor:

We felt it was necessary to respond to a recent letter to the editor from Precision's Andy Masclarella in your March issue. Andy states that "Flymo's have been manufactured at their Florida plant for over 5 years." It's important to understand the difference between manufactured and assembled in the U.S. It's common knowledge that Flymo (located 4,000 miles away in northern England) manufactures Flymo parts and ships them overseas to Precision in Florida. Precision probably does some assembly of those parts at their facility. We noticed their advertisements state "Assembled in the U.S.A.," not "Manufactured in the U.S.A." Grasscraft, on the other hand, is totally manufactured (i.e. parts are made in the U.S.A.) and we assemble at our Portland, Maine, facility.

Masclarella goes on to state that Flymo offers the lowest prices in the industry. That's probably right if you're buying their residential-use 12- or 15-inch models. In reality, if you

compare Grasscrafts 19-inch trimmer to Flymo's most popular 20-inch model you'll find a considerable difference in price. Flymo's model cost \$795 plus accessories while the comparable Grasscraft can be purchased for \$675. In addition to significant savings the Grasscraft trimmer includes a 5-horsepower engine while the Flymo only comes with a 3.5 horsepower engine.

We were also surprised to find that Masclarella doesn't seem to know the difference between a 2-cycle and a 4-cycle engine. It may be true that his mini-mow GCT 12 operates at 6,000 RPMs but that doesn't translate into more power. You see, a small engine must operate at higher RPMs to generate the same power as a larger horsepower engine operating at lower RPMs. A 2-hp engine screaming at 6,000 RPMs seems excessive to us and may explain the short life span of the GCT12 Flymo for commercial applications.

One of the biggest complaints we hear every day is the cost and availability of imported British-made parts. You see, it takes weeks for a shipment of parts to arrive from England, while Grasscraft parts can be shipped 2-day air if necessary. Our goal at Grasscraft is to provide a more durable, longer lasting, dependable hover mower and to back it up with good service and competitive prices.

Dave Rodway  
VP, Sales & Marketing  
Grasscraft, Inc.  
Portland, Maine

## GCSAA PRESIDENT TAKES ISSUE WITH COLUMN

To the editor:

Your editorial in the February edition was most disappointing to those of us who have been working for years to strengthen the superintendent's profession. You could not be farther from the facts when you say, "You can't create a stronger GCSAA without diluting the power of affiliated chapters." We believe the exact opposite: It is impossible to strengthen GCSAA without strengthening affiliated chapters!

Most requirements are the same as they were before; we will just be enforcing them across the board. These requirements are designed to make sure that all our chapters are strong, stable and able to provide good, meaningful programs for their members.

We have had true and honest debate about all the issues related to our new affiliation agreement, and not just limited to the dual membership requirement. You did not attend the Chapter Relations Meeting last September, nor any of the Chapter Relations Committee meetings, nor probably any of the many chapter meetings around the country dedicated to discussing these issues in detail. There has been a great deal of lively debate on this issue over the past two years. Finally, the time came to put it to a vote and decide a direction, rather than hem-hawing clear into the

21st century. The Board of Directors was pleased with the overwhelming support for this change at the Feb. 10 election.

Your accusation of heavy-handedness surprised me. Perhaps the media are more careful in distinguishing between *The National Enquirer* and *Golf Course News* when discussing the journalistic profession than they are in distinguishing among golf course superintendents. But when a poorly managed golf course has an environmental disaster, the media are typically quite heavy-handed in degrading the entire profession. In my estimation, these non-GCSAA, non-chapter members are a threat to our profession.

Personally, I haven't heard non-GCSAA, non-chapter superintendents speak out on these issues at all. Apparently, superintendents who don't care enough to join GCSAA or their local chapter don't care how GCSAA and the affiliated chapters conduct their affairs.

The dual membership requirement will eventually force would-be fence-sitters to decide whether they want to be in or out. (Those who are currently a member of either a chapter or GCSAA can sit on the fence forever. The dual membership requirement will apply only to new joiners after July 1, 1997.) This cannot realistically be construed as an issue of money or elitism. Even for a superintendent making only

\$20,000 a year, the combined dues would be about 2 percent, or less, of the annual salary. It is truly an issue of commitment.

Those who do care enough to dissent are certainly welcome in our association, and we welcome their viewpoints. We need all kinds of feedback, including contrarian, to keep us aware of where we are, and where we want to be.

Bruce R. Williams  
President, GCSAA  
Lawrence, Kan.

*Ed. — As for the weakening of affiliate chapters, clearly dual-membership will strengthen GCSAA membership while weakening those of state and regional organizations. We can agree there are superintendents — let's call them independents — who will want to belong to local chapters but not to GCSAA. By mandating these individuals make a choice — join both groups or neither — two eventualities will take place: 1) GCSAA will gain members, as a portion of the independents will surely deem it worthwhile to join national — as much for the benefits of GCSAA membership as for the right to retain their local affiliation; and 2) Local associations will lose potential members, as some of these independents will decide it's not worthwhile to shell out national dues for something they've already decided they don't want or can't afford. Indeed, as independents before the Feb. 10 vote, they had already decided it wasn't worthwhile. Further, fence-*

*sitters aren't grandfathered "forever." As we all know, superintendents move from job to job with great frequency. When and if a super moves to a new course and wants to join a new chapter, the dual-membership requirement kicks in.*

*• Are these independents "threats to the profession"? As I indicated in my February column, I think it's unfair to label these superintendents as "threats". I don't think Mr. Williams really believes they are. I think he indulged in a bit of politicking before the vote, which is the point I tried to convey in my column. Besides, everyone will agree there are thousands of perfectly able superintendents in America who don't belong to GCSAA. Indeed, with about 7,000 Class A members, GCSAA represents less than half the head superintendents now working in this country. I'm sure Mr. Williams didn't mean to imply that more than half the supers at the country's 15,000 golf courses are threats to their profession. Surely he didn't mean to imply non-GCSAA members are unfit to look after their golf courses. Besides, if these "threatening" non-GCSAA superintendents were to pay their \$200 membership dues, would they instantly become more competent? As I said, I don't think Mr. Williams believes that. I think he was trying to influence voters. And I believe it was heavy-handed.*

*• Mr. Williams also seems to imply that environmental disas-*

*ters can't happen at courses where GCSAA members are in charge. This is also unfair. Accidents can happen anywhere. Through education — most of it GCSAA-sponsored — many can be prevented. But there are plenty of independents who are fanatical about furthering their own education. Indeed, that's why GCSAA accommodates non-members at its educational sessions.*

*• Having spoken to those who were in Lawrence last September, I believe there was a true and honest debate at the Chapter Relations Meeting. However, the pros and cons voiced during that "lively debate" were never shared with the GCSAA membership in Golf Course Management or Newsline. Readers got only the pros, the party line. Further, were there non-GCSAA chapter representatives present at the September meeting? If not, it would have been hard for them to engage Mr. Williams on these issues.*

*• Finally, dues certainly do represent a financial issue. Mr. Williams says in his letter that it's not about money or elitism. But there's no denying that GCSAA members are largely employed by private clubs — clubs that often pay those association dues as a condition of employment. Insisting that a daily-fee or municipal superintendent pony up \$200 as a sign of commitment, especially when a huge percentage of GCSAA members get what is essentially a free ride, is ingenuine.*



# BRIEFS



## SEED RESEARCH HONORS FERRIN

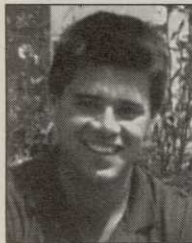
CORVALLIS, Ore. — Seed Research of Oregon, Inc. (SRO) has presented Jim Ferrin of Granite Bay (Calif.) Golf Club its 1995 Golf Course Superintendent of the Year Award. A certified golf course superintendent, Ferrin was given the award for "his dedication to integrated pest management, turfgrass variety testing, and innovative cultural practices," according to SRO.



Jim Ferrin

## MAINE HONORS LEWIS

ROCKPORT, Maine — Pat Lewis of Portland Country Club in Falmouth Foreside was presented the Distinguished Service Award at the Maine Golf Course Superintendents Association annual conference and show here in March. Lewis is a certified golf course superintendent and former president of the MGCSA. Greg Holder was given the Vern Putney Award and outgoing President Jim Hodge the Presidents Plaque.



Pat Lewis

## AUDUBON CERTIFIES LORDS VALLEY CC

HAWLEY, Pa. — Lords Valley Country Club has been designated a "Certified Audubon Cooperative Sanctuary," becoming the second course in the state and 62nd in the country to receive the honor. "The membership at Lords has enjoyed the diverse and prolific wildlife population of our club since the ... club was established," said superintendent Dennis Watkins. "The Audubon ... program has been a tool to help us protect, enhance, and develop a greater appreciation for our environment."

## PASSIOS MOVES ON

NANTUCKET, Mass. — Charles T. Passios, former member of the board of directors of the Golf Course Superintendents Association of America, has been hired as superintendent at Nantucket Golf Club, construction on which began this spring. A certified golf course superintendent, Passios has been golf course manager at Hyannisport (Mass.) Club. The new course is being designed by Rees Jones.



Charles Passios

# USGA, supers confront concerns over unstable Bermudagrass

By MARK LESLIE

HOUSTON, Texas — Believing that "Bermudagrass greens are on the ropes," the U.S. Golf Association (USGA) Green Section, superintendents, university researchers and others are hoping for vast improvements — quickly.

Convening at Houston Country Club here, some 150 golf course superintendents heard USGA agronomists and university researchers explain that cultivars of hybrid Bermudagrass are becoming increasingly unstable and some sort of research must be done to solve the problem.

"If what was going on with Bermudagrass greens and fairways existed for bentgrasses, there would be

an eruption," said Green Section Southeast Region Director Patrick O'Brien. "It's amazing how it's not getting publicity because it's simply Bermudagrass."

A summary of the Houston meeting will be presented in May to the USGA Research Committee which will develop requests for proposals for projects dealing with the issues at hand, said Green Section National Director Jim Snow. "It may not require a lot of money — perhaps just defining what can be done and finding the people to do it."

"I'm encouraged. It was a good meeting that opened people's eyes about other peoples' viewpoints."

Continued on page 34

# Significant advances in genetics foster nat'l conclave of scientists

By MARK LESLIE

EAST LANSING, Mich. — Geneticists are progressing at lightning speed in this "very, very new" area of turfgrass research, and to get scientists up to speed on these advances the U.S. Golf Association Green Section and Michigan State University (MSU) are hosting a Workshop on Biotechnology of Turfgrass here, Aug. 11-13.

"This is the growth area where future significant changes will be made," said Dr. Michael Kenna, director of Green



Section research and workshop coordinator. "Whoever can learn the most the fastest and patent significant parts of it will be able to springboard into the future. That's the race."

Scientists from around the country have been invited to the conference, and 26 45-minute talks are scheduled. Ranging from molecular biology to gene cloning and *in vitro* culture and somaclonal variation, many of the subjects have never been discussed in a national or international workshop

Continued on page 35



Photo by Allen Pryor



## PREVENTIVE MEDICINE

During rainy weather, golf course superintendent Bob Taeger checks major runoff areas. He said he and his crew attempt to prevent problems before they need curing. For story see page 16.

# GCSAA sending team to first international tournament

LAWRENCE, Kan. — Six representatives of the Golf Course Superintendents Association of America (GCSAA) will travel to England in September as part of the Americas team to participate in the inaugural Hayter Challenge golf event. GCSAA President Bruce R. Williams also will attend as non-playing captain.

West Lancashire Golf Course in Blundellsands, Liverpool, and Fairhaven Golf Course in Lytham, St. Annes, will

## More GCSAA news, pages 32-33

host the event Sept. 15-19. Sponsored by European equipment manufacturer Hayter, the tournament is designed to promote international relations and communications among golf course superintendent organizations. Plans call for the event to be held biennially at locations alternating between the United States and Europe.

# Q & A



Dr. A. J. Powell  
Univ. of Kentucky

Ed. — This month we begin a continuing series of interviews with leading university professors and researchers affecting the golf course industry.

# UK's Powell shares transition zone turfgrass know-how

Andrew J. Powell, Ph.D, is a professor in the University of Kentucky Department of Agronomy. He has also taught and conducted research at the University of Maryland and Virginia Polytechnic Institute and State University (VPI and SU). Among his accomplishments are the release of Quickstand Bermudagrass, a new grass for the upper transition zone; and identification of Vamont Bermudagrass, a grass released by VPI and SU and historically the major turf used in the transition zone.

**Golf Course News:** With the increasing emphasis on prudent pesticide usage, are you seeing more courses converting to warm-season grasses in the transition zone? If so, why?

**Powell:** Yes, many perennial ryegrass courses are converting. They are determining that the risk of bermuda winter kill is less than perennial ryegrass summer die-back. Also, the cost of establishing bermuda may actually be less than the annual cost of their previous fairway fungicide program. Fungicides are seldom needed on Bermuda.

**GCN:** What are the warm-season Bermudagrass varieties that work well? Can you briefly describe their advantages and disadvantages?

**Powell:** For the upper transition zone, I would only consider Quickstand, Vamont or Midiron. Other new vegetation varieties such as Midlawn may also prove to do well, but we have little experience with them. In addition, the new seeded varieties such as Mirage,

Jackpot and Sundevil are much more winter hardy than previous seeded varieties, but it appears that they still lack some hardness dur-

Continued on page 19



# Taeger's forte: Organization, organization and more organization...

By ALTON PRYOR

LOMPOC, Calif. — In his three years as golf course superintendent at Village Country Club here Bob Taeger has organized his 10-man staff into a fine-tuned team. They measure their success by getting things done before members even know the task needs doing.

"One thing the crew has learned is that their standards are even higher than those of the members," Taeger said. "It's our golf course. If we work to our standards, we find we don't have any problem with our clientele. It makes our life easier. If we should let our standards fall lower than our clients', I don't think we would be here."

Taeger has set up a somewhat unique arrangement with his crew. He runs the crew like independent contractors. "I have one man from my staff assigned to the front side, and another to the back nine. They are considered the 'owners,'" he said. "Then, I have equipment operators, a rough man and a fairway man who are on their machines 40 hours a week."

Three other crew members are what he considers operators-operating triplex mowers and walk-behinds, doing the greens and trimming.

Taeger's front-side and back-side "owners" do all the work they can, but if they get behind and need help, they give the superintendent a work order.

All members of the crew—whether working or playing golf—are expected to be observant of the entire golf course, not just their work area.



Photo by Alton Pryor



Bob Taeger jokingly pantomimes the mistake he made when having all the ball washers refurbished at once, rather than only half of them.

This team concept not only works for Taeger, but pleases his crew, giving them a feeling of being needed, not used. "My crew has worked for me for three years now, and we have gotten really good," Taeger said.

His method of organizing his crew allows him to use them more efficiently, too.

"It enables me to use the best man for particular jobs. Instead of locking a man into a job he isn't suited for, I develop specialists," Taeger noted. "Some people can sit on a mower for eight hours each day and enjoy it, while others can't."

Village Country Club is the fourth golf facility at which the 33-year-old Taeger has worked since he was 15 years old, but his first test in the superintendent's position. "Up until I became a superintendent, I underestimated their positions," Taeger admitted. "There is a

complexity and wide range of responsibilities that I hadn't appreciated."

Taeger operates with an annual budget of about \$500,000. "I am totally in charge of that money and I take that as a big responsibility." From that total, some \$225,000 of it goes for labor and utilities. He is extremely cost-conscious about spending the balance.

Village Country Club contains virtually 100 percent kikuyugrass fairways and poa annua greens. "Five years ago," Taeger said, "kikuyu was considered nothing but a weed, and you could find more books on how to eradicate poa than you could on how to grow it. But we're getting our respect these days, even from well-known turf experts."

One beneficial aspect of maintaining kikuyu is its

Continued on page 33

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Now you can topdress, plus spread compost, disperse clippings, fill bunkers, break and disperse aeration plugs, apply lime, wood chips and more - all with one affordable machine. More and more superintendents are finding the smaller Model 50 ideal for tees and greens because it has just 14.6 psi. The spread pattern adjusts from 3' to 10'.

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Chlorothalonil Fungicide  
after a 1/2" rain stress (SEM - 330X)\*

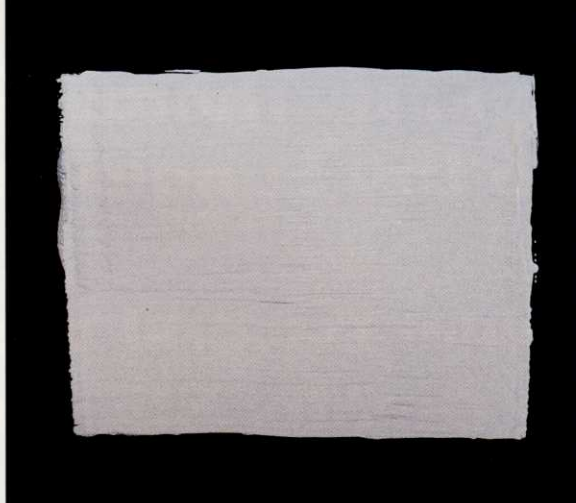


**Flowable Generic**

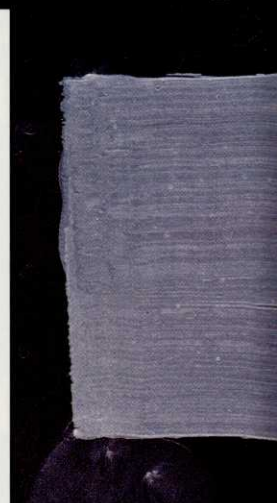
Chlorothalonil Fungicide  
after a 1/2" rain stress (SEM - 360X)\*



## **Daconil Weather Stik Chlorothalonil Fungicide**

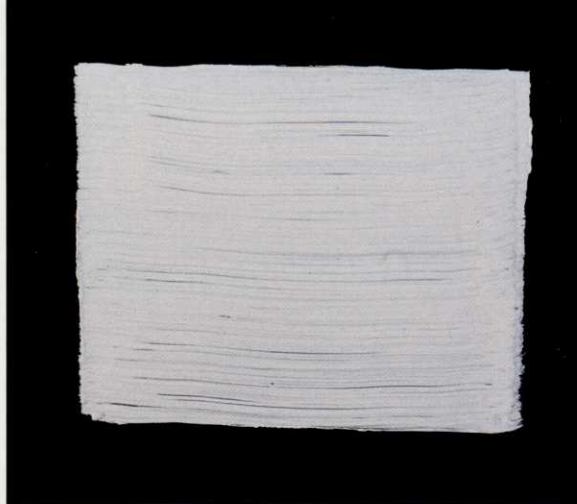


*Initial Application*



*After Moderate Simulation*

## **Flowable Generic Chlorothalonil Fungicide**



*Initial Application*



*After Moderate Simulation*

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After Heavy Simulated Rainfall/Irrigation



Before Rainfall/Irrigation



After Heavy Simulated Rainfall/Irrigation

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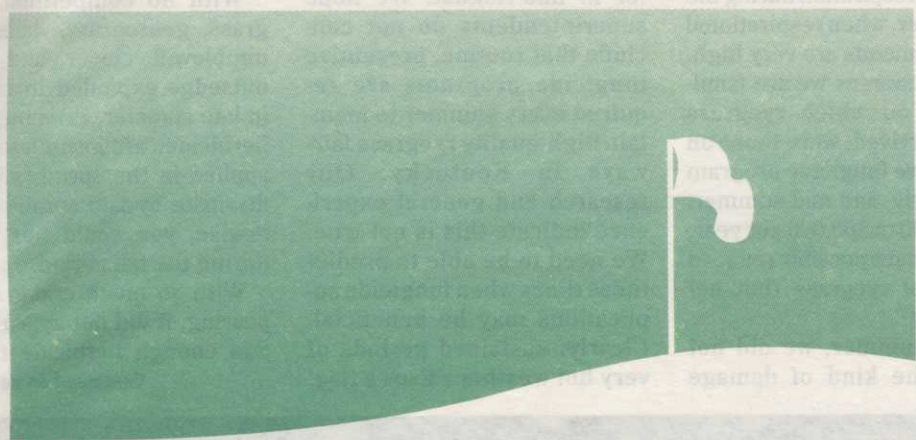
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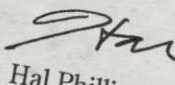
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**PUBLIC GOLF FORUM**



# UKentucky researchers offer help for 'grass AIDS' after '95 woes

By A.J. POWELL,  
DAVID WILLIAMS  
and PAUL VINCELLI

The loss of fairway grasses last July and August even surpassed that lost in 1991. All courses lost most fairway *Poa annua* and almost all lost their perennial ryegrass fairways and/or greens collars.

Creeping bentgrass fairways and greens fared much better, but even with creeping bentgrass, we experienced much loss due to wet wilt, localized dry spots, traffic damage, irrigation shortages, *pythium*, brown patch, etc.

No one knows for sure why so much ryegrass was lost, but it is certainly related to the fact that it was too hot for too long. The weather was typical for Atlanta, and perennial ryegrass fairways would not survive in Atlanta. Our August maximum temperature for both day and night, was about 5 degrees higher than the 30-year average.

With mowing heights as low as 1/2 inch, heavy play, frequent irrigation, and spring and summer nitrogen to force it to grow, ryegrass lives on the edge every summer. We have many new, more heat-tolerant varieties, but even those did not survive last summer.

Several diseases have been diagnosed in perennial ryegrass samples brought to the University of Kentucky plant diagnostic labs, and they appear to be part of the syndrome experienced last summer. *Rhizoctonia* leaf and crown infections were common in dying and dead grass.

In many samples, we found a great deal of foliar blighting caused by the fungus *Pyricularia grisea*, which causes "gray leaf spot" or "blast" in grasses. *P. grisea* was sometimes found in combination with *Rhizoctonia* sp. In other cases, it was the predominant pathogen present in affected ryegrass.

In a few samples, we found a great deal of foliar blighting caused by weak pathogens, particularly *Leptosphaerulina trifolii*.

*Pythium* species were surprisingly uncommon in fairway samples, but aggressive, active root infections by mycelia of *Pythium* species were observed in one case where damage was confined to discrete patches in the fairway.

"Grass AIDS" might be the best description for the situation. The extended heat period greatly stressed the grass, and the grass had little to no reserve

energy and reduced resistance to diseases.

Last July, we had an epidemic of brown patch, and other diseases were active by late July. Soon after disease thinned out the grass, extreme heat finished it off.

Any disease, traffic stress, scalping, etc. will open up the canopy, reduce transpirational cooling and allow for more extreme crown temperatures.

Furthermore, blighting of leaves by diseases takes away

ryegrass's ability to maintain metabolic respiration during the hot weather, when respiratory energy demands are very high. The only courses we are familiar with, on which ryegrass mostly survived, were those on a preventive fungicide program during early- and mid-summer. For \$40,000 to \$60,000 per year, you could have possibly reduced the loss of ryegrass (but not *Poa annua*).

In midsummer, we did not foresee the kind of damage

that perennial rye would suffer in mid-August. We hope superintendents do not conclude that routine, preventive fungicide programs are required every summer to maintain high-quality ryegrass fairways in Kentucky. Our research and general experience indicate this is not true. We need to be able to predict those times when fungicide applications may be beneficial. Clearly, sustained periods of very hot weather raises a flag.

## EXTRA AGGRAVATION

With no competition, crabgrass, goosegrass, dallisgrass, nimblewill, clover, and yellow nutsedge exploded in fairways in late summer. Pre-emergence herbicides are formulated to be applied in the spring and then dissipate by late summer. Otherwise, you could not reseed during the fall period.

With so much crabgrass appearing, it did not appear there was enough herbicide residue

Continued on next page



This bulletin, written by University of Kentucky Professors Powell, Williams and Vincelli, was circulated last August to Kentucky turfgrass managers who suffered through last summer's heat. It could prove useful to superintendents in the transition zone as they prepare for the upcoming warm weather.



## Q&A: Dr. Powell

Continued from page 15

ing the establishment year (first winter).

Quickstand and Midiron are slightly finer in texture than Vamont. Quickstand establishes faster than Midiron or Vamont, and Quickstand appears to have excellent resistance to spring dead spot. All of these varieties are coarser and lighter green than Tifway.

GCN: How do the zoysiagrass varieties fit in? Can you briefly describe those that show promise?

Powell: For the upper South, zoysia is in a class by itself for fairway quality. The problem with zoysia is cost and/or establishment. Row-planted zoysia takes several years to completely cover.

Strip-sodding is somewhat faster, but it is much more labor intensive and expensive, and the light-colored zoysia strips can be annoying to the golfer. Sodding is the way to go but obviously very expensive for an entire course.

Although several experimental and new zoysia varieties look promising, Meyer is still

the variety of choice.

GCN: How close in quality does the best seeded variety come to the vegetative varieties of Bermudagrass?

Powell: So far, the most winter hardy seeded varieties of bermuda, like Mirage and Sundevil, are as coarse or coarser in texture than common Bermuda. They frequently green-up a couple of weeks behind the vegetative varieties.

But the main difference is winter hardiness. The previously named vegetative varieties are much more hardy than common Bermuda.

Although the texture is very coarse for these new varieties, they can be of high quality if mowed frequently and mowed short.

GCN: Gray leaf spot is a particularly severe problem with the perennial ryegrasses found in your area. What perennial ryegrass varieties best withstand gray leaf spot?

Powell: We did have a serious problem with gray leaf spot last summer and it may have been the big culprit causing perennial ryegrass loss in 1991 and 1993. We have not been able to get uniform infection in our peren-

nial ryegrass plots and cannot suggest possible resistant varieties.

GCN: Dr. Paul Vincelli, a fellow University of Kentucky researcher, is exploring a possible connection between the early-season appearance of gray leaf spot on forage grasses and its subsequent appearance on turfgrasses. What are the potential benefits of this research?

Powell: We made an interesting observation last summer, that is, that moderate to severe damage from *Pyricularia grisea* [gray leaf spot] was occurring in fields of German foxtail millet in Kentucky up to a month before we saw severe damage in perennial ryegrass fairways.

In the future, we hope to put this observation to the test. Can we protect ryegrass fairways with one or two protective sprays that are made after we see gray leaf spot developing on German foxtail millet, or other warm-season forage grasses? And if so, which fungicides should we use?

These questions will be the subject of future field research, but must wait for the kind of summer we experienced last year.

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CIRCLE #111

## UKentucky profs share solutions

Continued from previous page

to cause a seed germination problem for fall reseeding.

Clover can easily be killed with most 2,4-D, MCPP, and dicamba combinations. After application, two to four weeks are required before reseeding. The reduced germination caused by these products is minimal with perennial ryegrass seedings.

What can you do about yellow nutsedge? Not much. Most nutsedge herbicides have a two-week or more waiting period required before seeding. Round-Up will burn nutsedge seriously, but it offers poor control. Even with products such as Bassagran, Trimec Plus and Manage, several applications are required over a two- or three-year period, in order to obtain adequate control.

### SEEDING

Prior to seeding, a hollow-tine aerification (with cores destroyed) will help relieve compaction and increase soil-seed contact. Slit-seed the perennial ryegrass in two or three directions, with the seeder calibrated to apply between 30-40 pounds per acre for each pass. In order to increase the rapidity of cover and reduce the seeded row-effect, precede the slit-seeding by broadcasting another 40-80 pounds/acre.

After the ryegrass has germinated, apply nitrogen every four to six weeks until the end of the year. Then next year, if at all possible, do not apply additional nitrogen until fall.



# U.S. turf schools aplenty

Following are the U.S. schools that have turf management programs. The A, B, C and D following the school names stand for: A=graduate program; B=4-year; C=2-year associate or certificate program & 1-year certificate program; D= winter programs, short courses, other seminars; E= correspondence & independent study programs.

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Auburn Univ., AL 36849  
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Dept. of Plant Sciences  
Forbes Building  
Tucson, AZ 85721  
Charles Mancino, Libby Davison

Mundus Inst. (C, D)  
4745 N 7th St.  
Phoenix, AZ 85014  
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Univ. of Arkansas (A, B)  
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Steve Anglay

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(C, D)  
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Dept. of Hort.  
21139 Malta Rd.  
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Larry Marty

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Dept. of Agronomy  
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Dr. Clark Throssell

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Dept. of Hort.  
133 Hort. Building  
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Dr. Nick Christians

Western Iowa Tech (C, D)

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P. O. Box 8015  
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Scott Harvey

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Patrick O'Malley

Kirkwood Comm. Coll. (C)  
Hort. Dept.  
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Phil Thomas

Kansas State Univ. (A, B)  
Dept. of Hort.  
Waters Hall  
Manhattan, KS 66506  
Jack Fry

Johnson County Comm. Coll.  
(C)  
12345 Coll. Blvd. & Quivira  
Rd.  
Overland Park, KS 66210  
Patty Lindgren

Univ. of Kentucky (A, B, D)  
Dept. of Agronomy  
Lexington, KY 40548-66210  
Dr. A.J. Powell Jr.

Eastern Kentucky Univ. (B, C)  
Dept. of Agriculture  
Carter Building  
Richmond, KY 40475  
Dwight G. Barkley

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Robert Wolfe

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O.W. "Pete" Dotson

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Inst. of Applied Agriculture  
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Dr. Kevin Mathias

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Environmental Tech. Dept.

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Paul R. Harder

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Dept. of Soil Sciences  
Stockbridge Hall

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Dept. Crop & Soil Science

East Lansing, MI 48824-  
Dr. Bruce Branham  
Anoka Technical Coll. (C, D)  
Hort. Dept.  
1355 West Highway 10  
Anoka, MN 55303  
Richard Robinson

Minn. Riverland Tech. (C)  
1926 Coll. View Rd. SE  
Rochester, MN 55904  
Vern Bushlack

Univ. of Minnesota (A, B, D)  
Dept. of Hort. Science  
St. Paul, MN 55108  
Donald B. White

Univ. of Minn. (A, B, D)  
Dept. of Hort. Science  
St. Paul, MN 55108  
Donald B. White

Mississippi State (A, B, D)  
Dept. of Agronomy  
Box 9649  
Miss. State, MS 39762  
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Allen Earle

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Dept. of Plant & Soil Sc.  
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George E. Evans

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377 Plant Science Bldg.  
Lincoln, NE 68583  
Terry P. Riordan

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Commercial Hort. Dept.  
P.O. Box 1024  
Hastings, NE 68902  
Moe Rucker

Rutgers Univ. (A, B, C, D)  
Plant Science Dept.  
P.O. Box 231  
New Brunswick, NJ 08903  
James Murphy

NM State Univ. (A, B, D)  
Dept. of Agronomy & Hort.  
Box 3Q NMSU  
Las Cruces, NM 88003  
James N. McCrimmon

State Univ. of N.Y. (B, C)  
Plant Science Dept.  
Hader Hall  
Cobleskill, NY 12043  
Robert Emmons

State Univ. of Ne.Y. (C)  
Dept. of Hort.  
Farnsworth Hall  
Delhi, NY 13753  
Dominic Morales

Cornell Univ. (A, B, D)  
Dept. of Ornamental Hort.  
20 Plant Science Bldg.  
Ithaca, NY 14853  
A. Martin Petrovic

N.C. State (A, B, C, D)  
Box 7620 Crop Science  
Williams Hall  
Raleigh, NC 27695  
Joseph DiPaola

North Carolina State Univ.  
Crop Science Dept.  
Box 7620  
Raleigh, NC 27695-7620  
Charles Peacock, Ph.D.

Wayne Comm. Coll. (C)  
Dept. of Ag. & Natural Res.  
Box 8002  
Goldsboro, NC 27530  
John Mills

Sandhills Comm. Coll. (C)  
Landscape Gardening Dept.  
2200 Airport Rd.  
Pinehurst, NC 28374  
Fred Garrett

North Dakota State (B, D)

Hort. & Forestry Dept.  
Box 5658, Loftsgard Hall  
Fargo, ND 58105  
Ronald C. Smith

Ohio State Univ. (C)  
Agricultural Technical Inst.  
1328 Dover Rd.  
Wooster, OH 44691  
Michael M. Fulton

Ohio State Univ. (A, B, D)  
Dept. of Agronomy  
2021 Coffey Rd.  
Columbus, OH 43210  
Dr. Karl Danneberger

Ohio State Univ. (A, B, D)  
Dept. of Agronomy  
2021 Coffey Rd.  
Columbus, OH 43210  
Dr. Karl Danneberger

Clark State Comm. Coll. (C)  
Hort. Industries Technology  
P.O. Box 570  
Springfield, OH 45501  
Dalton Dean

Oklahoma State Univ. (A, B)  
Hort. & Landscape Arch.  
360 Agriculture Hall  
Stillwater, OK 74078  
James Baird

Portland Comm. Coll. (C, D)  
P.O. Box 19000  
Portland, OR 97219  
James Meyer

Oregon State Univ. (B)  
Hort. Dept.  
ALS 4017  
Corvallis, OR 97331  
Thomas Cook

Clackamas Comm. Coll. (C, D)  
Ornamental Hort.  
19600 South Molalla Ave.  
Oregon City, OR 97045  
Elizabeth Howley

Pennsylvania State (A, B, C, D)  
Dept. of Agronomy  
116 ASI Building  
Univ. Park, PA 16602  
George Hamilton

Harry-Georgetown Tech. Coll. (C, D)  
Golf Course Technology  
Box 1966  
Canway, SC 29526  
Ed Zahler

Clemson Univ. (A, B)  
Dept. of Hort.  
168 Plant & Animal Sc. Bldg.  
Clemson, SC 29631  
A. R. Mazur

South Dakota State Univ. (B, D)  
Hort., Forestry, Landscape & Parks  
Brookings, SD 57007  
Dr. John Ball

Univ. of Tennessee (A, B, D)  
Ornamental Hort. & Landscape  
Plant Science Building 259  
Knoxville, TN 37901-1071  
Lloyd M. Callahan

Texas State Univ. (C)  
Golf Course & Turf Man. Dept.  
3801 Greenway Drive  
Waco, TX 76705  
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Grayson County Coll. (C)  
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6101 Grayson Drive  
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Texas A&M Univ. (A, B)  
Dept. of Soil & Crop Sciences  
Coll. Station, TX 77843-2474  
C. T. Hallmark

Utah State Univ. (A, B, C)  
Plants Soils Dept.  
Ag. Science Building  
Logan, UT 84322  
William F. Campbell

Brigham Young Univ. (A, B)  
267 WIDB  
Salt Lake City, UT 84802  
Frank Williams

Washington State Univ. (A, B, E)  
Dept. of Crop & Soil Science  
Pullman, WA 99164-6420  
William Johnston

Spokane Comm. Coll. (C)  
N. 1810 Greene St. MS 2080  
Spokane, WA 99207  
Gary Davis

Univ. of Wisconsin (A, B)  
Dept. of Soil Science  
1525 Observatory Dr.  
Madison, WI 53706  
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# GCSAA shares job fears with PGA, who took steps to help pros

By PETER BLAIS

Expanding job opportunities and influencing job continuity — concerns that have also been raised by Professional Golfers Association of America members — has become part of the Golf Course Superintendents Association of America's strategic plan.

"The golf course superintendent's profession is not exempt from such trends as downsizing," warned Tommy Witt, GCSAA board member and chairman of the superintendent association's career development committee.

Fears about too many people chasing too few jobs is something superintendents and golf pros have had to wrestle with in today's uncertain economic environment. Several years ago, the Professional Golfers Association introduced a new certification program designed to break up the logjam of aspiring apprentices wanting to become certified golf pros.

Prior to June 1993, would-be golf professionals usually started their careers working at a course pro shop. After a few months of on-the-job training, they attended the PGA's Business School I classroom program followed by Business School II. Getting to that point typically meant apprentice

pros had invested significant time and energy preparing for their careers. Before enrolling in Business School II, however, they had to pass the Player Ability Test (PAT).

This is where the logjam occurred.

The PAT requires that apprentices play 36 holes within 15 strokes of par. For example, an apprentice taking the test at a par-72 layout must shoot no more than 159 [(2x72) + 15] to pass the test. Many apprentices got stuck at the PAT, either taking several tries before finally shooting the required score or never hitting the magic number and having to give up their dream of becoming certified head pros.

Many apprentices stayed in the business, however, working as assistant pros. And since entry into the field was easy and the lifestyle seemingly attractive, many more would-be pros continued to pour in. The result was a glut of apprentices.

The PGA recognized the problem. Acting on a study recommending the association revamp its educational offerings and upgrade members' skills, the PGA moved the PAT to the front of its educational program in 1993. Would-be pros could not enter the apprenticeship program until they had passed the playing test. The goal was to make sure people did not get stuck at the appren-

ticeship level. Of the 12,200 people who took the PAT in 1995, roughly 20 percent passed, according to PGA figures.

"We felt we had to upgrade our standards for people to realize that golf was really a business," Hunkler said. "We never set a maximum number we would accept. We simply needed to upgrade our standards. The result was a slight decrease in the number of people coming into the program."

The PGA followed the front-loaded PAT requirement with additional steps an apprentice must complete before becoming a certified pro. These were:

- A two-day professional readiness program which includes discussions regarding a golf pro's compensation; time required to complete the program; and required skills and aptitudes.

- A formal business school program that includes two elective and 19 core courses, skill simulations performed in classroom settings and work experience.

"It typically takes an apprentice three or four years to complete the program and become a head pro, although it could probably be done in as little as 18 months," Hunkler said.

The PGA added two other programs, one designed to expand career opportunities and the other to match PGA pros

with employers.

The first program recognizes the many career paths available in today's golf industry. It allows members to maintain their accreditation as golf professionals while working as instructors at indoor golf facilities, general managers of golf complexes, teachers at golf schools, technicians for equipment companies and administrators in various golf-related businesses.

"The golf industry has grown and the PGA wanted to recognize that there are many careers available for its members," Hunkler said. "For example in the Northeast and Midwest, many of our members were spending more time teaching at indoor facilities than they were outdoors."

The second program, called Career Links, uses computers to match employer job opening requests with potential job seekers. A PGA member puts his resume on file with Career Links.

When an employer lists an opening with certain skill requirements, Career Links searches its files for potential candidates whose skills match those requirements.

Resumes are forwarded to the potential employer who reviews the materials and sets up interviews. The program was just started last fall.

## Job openings

Continued from page 1

winter programs have found jobs," said OSU assistant professor David Willoughby. "We have 12 to 15 openings right now and no one to fill them. There seems to be a lot of construction going on and a number of people retiring from the business."

Added Penn State instructor George Hamilton: "It's been a banner year for assistants. There have been a number of course openings, particularly near Pittsburgh and Philadelphia. A new course generally hires away the assistant superintendent from somewhere else to be its new head superintendent. That leaves an assistant opening at his old course as well as an assistant position to be filled at his new one."

Hamilton noted that with the additional administrative responsibilities being placed on head superintendents, many assistants are now doing the day-to-day work done by the head superintendent 10 or 15 years ago. Today's assistant superintendent often oversees a second assistant, who does the work the first assistant used to do. Consequently, there are more assistant superintendents.

Hamilton said Penn State's agronomy office recently listed 51 assistant openings ("a significant increase over a year ago.") and 16 head superintendent positions ("about the same as last year."). Other schools report the number of head superintendent listings remaining stagnant as well.

"The problem is getting from assistant to that next level," Rogers said. "It's a real dogfight for head superintendent jobs."

Part of the problem is the growing number of turf school graduates. While the Michigans, Penn States and Ohios have kept enrollments steady ("We reject two applicants for every one we accept." — Hamilton, Penn State), many schools have added new turf programs or expanded existing ones. The Golf Course Superintendents Association of America "guess-

imates" there are 2,000 two- and four-year turf students at about 120 schools nationwide, said GCSAA spokesman Scott Smith.

"Those numbers worry existing superintendents, but the course owners think it's great," Rogers said. "It's a buyer's market. A course owner can get a young head superintendent for \$28,000 a year, keep him for a few years, then let him go and get a new guy for \$28,000 down the road. If the owner charges \$15 to \$20 a round and is pretty certain of getting that regardless of the course condition, he figures there's no reason to ever pay anyone more than \$35,000 a year if there is a young guy who will start well below that."

GCSAA has tried to educate course owners as to the importance of hiring, keeping and paying for experienced superintendents. The association's Career Development Department beefed up its quarterly newsletter, *Leader Board*, which addresses the superintendent's role in caring for an owner's multi-million-dollar investment. GCSAA has also sought to strengthen relationships with management companies and other multi-course operators. And it is offering more seminars on subjects like resume writing and job-interview skills.

For their part, superintendents are more aggressive in applying for new jobs, Hamilton said. That has put additional pressure on existing superintendents. It has also allowed owners to keep salaries lower.

The difficulty in finding or keeping head superintendent posts has led many to leave for positions in consulting, sales, course design and construction, Rogers noted.

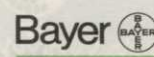
"I've always told students that being a superintendent is one of the hardest jobs in the world," he said. "It's a lot like being a football coach. A football coach's career is dependent on the legs of an 18-year-old kid. He can prepare his player for a game, but he has absolutely no control over him come Saturday afternoon. Likewise, a superintendent can try to prepare his course. But, ultimately, he is at the mercy of the weather, something he has no control over either."

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CIRCLE #194

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Bayville Hole No. 1  
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CIRCLE #114



# With expanded 4-year programs, turf schools concerned with supply

Continued from page 1

sociation of America estimates there are approximately 2,000 two- and four-year turfgrass students at about 120 different schools. Turfgrass programs typically fall into one of the following categories: two-year associate's degree programs, two-year certificate programs and four-year bachelor degree programs.

The estimated number of turfgrass graduates in 1996 ranges from a relatively small group of eight bachelor-degree graduates at the University of Rhode Island, to approximately 65 two and four-year graduates at Michigan State and Penn State, to 80 combined two- and four-year graduates at the University of Massachusetts.

At each of the above schools, these numbers are essentially the same as they were for 1995 and 1994 — but significantly higher than 1990 and 1985.

In the meantime, a record 468 new golf courses opened in 1995.

Many colleges and universities — like Penn State, Michigan State and Massachusetts — employ caps on the number of students they annually accept into their two-year programs and have for many years. The increase is coming within the four-year degree programs.

At Michigan State, for example, the number of four-year turfgrass students has jumped from eight in 1988, to 72 in 1996, with about 16 graduates expected this year and most of them heading to the golf course industry. Penn State will have somewhere between 30 and 40 four-year turfgrass degree graduates this year, compared with 12 to 15 in the mid-1980s.

Driving the sharp increase in turfgrass students in the late 1980s and early 1990s — and to a lesser extent today — was an increase in new two-year degree and certificate turfgrass programs at schools that hadn't offered them before.

"It seems like [two-year] programs have been popping up everywhere," said George Hamilton, a technical advisor and instructor at Penn State. "People are focusing on quantity and not quality. It's not just the number of graduates, it's the quality of those graduates. With a lot of schools it seems like it's boom — 'We're going to put a turfgrass program together.'"

Many of these new two-year turfgrass certificate or degree programs were launched at community or junior colleges.

"I think we need both kinds of programs [degree and certificate]," said John "Trey" Rogers, an associate professor at Michigan State University. "I think they'll both be there for a long time. Under no circumstances are all 15,000 golf courses created equal and the needs at each course are different."

Not all colleges and universities report increasing enrollments or programs over the past five to 10 years. Lake City College in northern Florida has actually trimmed back the number of students in its three-year associate of science degree program known as "Golf Course Operations" — from about 40 to 45 in the late 1980s, to about 28 in 1996.

"We backed off on the number of students because we felt the marketplace indicated we didn't need as many — and 25 or so students is a more comfortable number to handle," said John Piersol, chairman of the divisions of golf course operations and landscape technology at Lake City and a 22-year faculty member. Lake City, situated between Tallahassee

## SEE RELATED STORIES, PAGES 20-21

and Jacksonville, has offered a turfgrass program since 1967.

A clear trend in turfgrass education these days is more students enrolling in four-year bachelor programs, especially at the larger state universities. The idea schools are pitching, and students seem to be accepting, is that four-year degree programs offer a broader, more extensive education which will help the prospective golf course superintendent prepare for the fast-changing future.

Several professors at turfgrass schools said many golf clubs and golf courses now expect applicants to have four-year turfgrass degrees. There is also the future possibility that the Golf Course Superintendents Association of America (GCSAA) may require four-year degrees for certification, which would affect a number of issues ranging from professional prestige to earning power.

Even now, a graduate with a four-year bachelor's degree in turf or plant science requires less on-the-job experience and fewer continuing education credits to be eligible for GCSAA certification.

"The profession has done a good job of promoting itself and attracting a lot of young

*The increase in turf students is coming within the four-year degree programs.*

students," said Rogers at Michigan State University. "If we get an 18 or 19-year-old student... 10 years ago we would say, 'Get into a two-year program and you'll be fine.' Now we'll say, 'A four-year program is where you want to be because you don't know where the industry is going.'"

"It will be interesting to see where we'll all be 10 years from now with the four-year students," said Rogers. "That will be a good thing to watch."



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# Porta-pump eases manpower, back pain

By TERRY BUCHEN

Portable pumps are widely used on golf courses throughout the land, but they have their limitations.

We mounted our portable, three-inch "trash" pump on a small trailer used to transport mowers, sod cutters, rototillers, etc. Once it was mounted on the trailer, one person could hitch it up to a utility vehicle instead of two people lifting it onto and off a vehicle. The suction and discharge hoses fit easily onto the trailer and have quick-connects/disconnects for easy operation.

When central Ohio flooded last year, we had to pump parts of the golf course all night, and therefore were limited in how long the pump would run, which was usually 1-1/2 to 2 hours on the OEM gasoline tank. So, we searched for a larger, auxiliary gas tank through auto-parts stores, but couldn't quite find one that we really liked.

At an automobile racing supply store we finally found a 12-gallon, hardened fiberglass,



The portable pump assembly put together at Double Eagle Club in Galena, Ohio.

gravity gasoline tank that was painted red for safety. It is waterproof from the elements, with a twist-type fuel cap, and is properly vented with a quarter-inch hydraulic-type black hose that exits toward the bottom of the trailer.

Our mechanic built the black support frame by welding together one-inch angle iron. The tank frame is bolted to the trailer in case it ever needs to be removed.

The auxiliary fuel tank is hooked to the pump engine

with an automotive-type quarter-inch black rubber fuel line, with an automobile-type fuel filter and a fuel shutoff petcock.

We carry a one-quart plastic bottle of oil to refill the engine if it uses even the slightest amount of oil.

For safety, the lynch-type pin on the trailer hitch is spring-loaded as the spring hooks onto the bottom of the pin so it won't come loose during transport.

Instead of using two employ-



## ON THE GREEN

ees to move the pump to the site needing to be drained, the utility vehicle can easily back up to the water.

The pump uses about one to 1-1/2 gallons of fuel per hour, so the 12-gallon tank will run all night. The OEM tank is shut off with a petcock valve, but can be turned on for use any time simply by turning off the petcock valve from the 12-gallon tank and turning on the OEM valve.

A small plastic bucket with metal handle is also on the trailer to prime the pump with water.

Similar applications for the trailer include mounting an electric generator or welder, powered with a gasoline engine, with the same auxiliary fuel tank attached.

# Penn Turf Council re-elects Snyder

Samuel Snyder VII of Hercules Country Club in Wilmington, Del., has been re-elected president of the Pennsylvania Turfgrass Council at the organization's annual meeting. Michael Zedreck, Pittsburgh Field Club, Pittsburgh, Pa., was re-elected first vice-president. Barry Grote, The Scotts Company-Proturf Division, Pittsburgh, Pa., was re-elected second vice-president.

Michael Smith, Gulph Mills Golf Club, King of Prussia, Pa., was re-elected secretary-treasurer. John Yakubisin of Rolling Rock Club, Ligonier, Pa., serves as the past president, and Christine King, Bellefonte, Pa., is the executive director.

The Pennsylvania Turfgrass Council is a non-profit educational organization dedicated to the improvement of the entire turfgrass industry. Its intent is to organize all those in turfgrass into one strong organization that is representative of the entire industry.

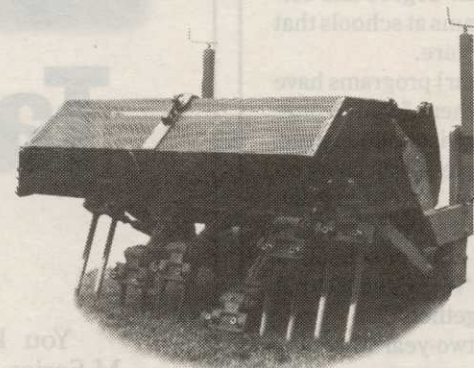
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CIRCLE #118



By TERRY BUCHEN

Power outages are dreaded by golf course superintendents, but relief can be found. As the irrigation systems have recently been turned on for the season on Northern and transition courses and will be used much more heavily in the Southern climes, it is time to start keeping track of each and every power outage and brownout in a permanent file. This file can be used to prove to the power company's account executive/electrical engineer that there is indeed a problem, and probably a recurring problem at that.

## Power outage results in lost turf? Relief may be at hand from utility co.

The good news is that your golf course can be reimbursed for any turf damage or other loss because of the outage, if the power company can be proven to be negligent in getting the power back on or from any unnecessary delay for almost any reason.

Keeping good records and being persistent can pay off for you. Even the clubhouse can benefit. For instance, if food is spoiled by a prolonged outage, the power

company would have to replace it. Many superintendents have an emergency procedure in writing

### SAVVY SUPERINTENDENT



for all key department heads at their golf course, with the names and telephone numbers for the power company. Almost all power companies have account executives that can give you special, non-published telephone numbers along with their own home, cellular and pager numbers to help get the power turned back on fast.

Over the past two decades, power companies have been trying to shed their "monopoly"

image by being more customer-oriented. You can get your account executive's attention simply by telling them you will experience a severe loss or damage to the turf if power is not restored immediately. Detail all verbal and written correspondence in the file and it will prove you to be a winner.

One further note: Check the power company's rules about its liability towards its customers, especially large ones like golf courses. Even if its rules state that it does not reimburse clients, that can be remedied by their public-relations personnel.



## Venable joins Boston Hills

HUDSON, Ohio — Scott Venable, the superintendent at Tam O'Shanter Golf Course in Canton, has left to join Boston Hills Country Club and The Range as superintendent of the two public facilities. While at Tam O'Shanter, Venable established and ran the turf programs for the Waikem Buick, Northern Ohio PGA, Ohio Open Championship and the 1994 USGA Women's Amateur Public Links Championship. In addition to the 36 holes of golf, Venable ran the course's 150-car golf fleet and was responsible for all grounds and building maintenance.

He initiated innovative work and turf programs such as "mow & go," work programs with the Stark County Board of Mental Retardation, membership with the National Audubon Society and tournament work with the USGA.

...

In Georgia: Scott Tullis has accepted the superintendent's post at Hidden Hills CC... Brian Cliett has left Pine Knoll CC and joined Town and Country Club... Norm Pilote has been promoted to director of golf maintenance at both Sea Island Golf Club, hiring Tim Daniels as an assistant, and at Ocean Forest Golf Club, which also hired Fred Theus as superintendent... Scott Drader is the new superintendent at Brunswick CC... John Province is St. Andrews Golf & CC's new superintendent... Joel Keller has been promoted to head superintendent at Atlanta Athletic Club... Athens CC has named James Drinkard as superintendent... Ley Johnson was promoted to superintendent at Chateau Elan Golf Club... Chester Guizek has accepted the position of assistant superintendent at Polo Fields CC, replacing Raymond Echuck, who has opened his own machine shop.

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Summer Patch



Dollar Spot



Anthracnose



**B**EFORE YOU CAN PUT YOUR COURSE ON A PEDESTAL, YOUR FUNGICIDE PROGRAM NEEDS A FOUNDATION.



# Group buying enters superintendent ranks

Continued from page 1

nance of greens, tees and fairways. Expansion into other areas such as carts, balls, clubs, apparel and accessories, as well as technical support and computer services, is in the second-stage plans.

If successful, NTC would be competing in some areas against the 3-year-old Smart Buy group purchasing program run by the National Golf Course Owners Association. Smart Buy enables NGCOA's membership of nearly 2,000 privately owned golf clubs

to acquire merchandise and services in 25 different categories, ranging from golf carts and bunker rakes to insurance and legal services. Still, NTC executives do not believe they are threatening the prosperity of NGCOA's Smart Buy program.

With 15,000-plus courses operating in North America, NTC sees considerable opportunity for everyone.

"There's already competition among suppliers and manufacturers of golf products so com-

petition is beneficial," said J. Joseph O'Connor, president of NTC. "We do not intend to be a trade association. We are a membership cooperative and we believe the very structure and nature of our cooperative will give us the critical elements to get the best prices for our members."

Although group buying has been done before on a regional basis with mixed results, no one has succeeded on a national level except NGCOA. Last June, an individual named Jeffrey

Dykehouse of Grand Rapids, formed an organization called the United States Country Club Association with the main purpose to implement a group purchasing program called the Cooperative Alliance for Purchasing. The association went out of business a few months later without ever making any purchases. NTC executives talked with Dykehouse and others during the several months they spent researching golf courses and cooperative buying.

"We know of some small groups put together by the golf superintendents themselves that have bought from the wholesal-

ers, but most have failed because the superintendents couldn't spend all that time involved with the group," said Robert L. Owens, who will help manage NTC's day-to-day operations. "Four or five have come and gone. There's a group of 12 courses in Ohio that's done quite well. Scotts [Company] told us the largest group of buyers they know about is American Golf which owns and manages 187 courses."

NTC believes it will succeed because of the financial backing of the National Cooperative Bank (NCB), the big Washington institution which finances cooperatives of all types. "Our partnership with NCB enables us to provide many additional services for our members," said O'Connor. "The bank will help finance major equity purchases, capital improvements of courses and clubs and a myriad of other banking services that may not have been available to our members on their own."

A board of directors made up of the members will control and oversee the cooperative. It will be managed by a separate company, Turfcom, which helped research and structure the cooperative. Owens, who is Turfcom's executive vice president, also will serve as Chairman of the Board of NTC under the terms of a service agreement.

The membership fee for a single course is a one-time charge of \$2,000. Members who own more courses will pay \$1,000 for each additional course. Members also will be required to make a minimum of \$30,000 in purchases annually.

In return, NTC indicated, members will get prices "significantly below present industry purchase price levels," but also will receive additional discounts and rebates depending on the percentage of products they buy.

"We are a not-for-profit cooperative," O'Connor said. "Any excess income after expenses will be given back to the members in the form of dividends."

NTC is zeroing in on the golf course superintendents to recruit members. That's different than NGCOA which goes after owners.

"The superintendents are the people who make the primary decisions on buying the products we're selling," said O'Connor. "They can convince their owners that they can save money, maybe big money, by joining our cooperative."

But NGCOA feels that tact may backfire on its new potential competitor. Michael Tinkey, director of the Smart Buy program, said NGCOA's cost savings on its merchandise is only part of the equation.

Asked Tinkey: "If you have the opportunity to join something for \$2,000 and the owner says he already pays our annual membership fee of \$350 — and not only gets a price reduction but also gets services in legal, envi-

Continued on page 68

and other diseases. And you can apply BAYLETON over your entire course to keep golfers from tracking disease from your fairways to your greens and tees.

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# Grading greens: A super's report card

By JAMES F. MOORE

A course is approaching 100 years old. From the members' perspective, the topography is interesting, the layout challenging, and the mature plantings picturesque.

For the superintendent, the course's charm translates into small pushup greens with poor drainage, subpar soil mixes, and a heavy poa annua population. Those mature plantings impede air movement and block light to greens.

Meanwhile, heavy play spells disaster for greens with limited surface area and few entrance and exit points.

Greens built more than 40 years ago are especially a maintenance challenge. No matter how knowledgeable or skilled the superintendent, some greens will never perform really well. The rough part is explaining that to members who know only that the greens don't look as good, or play as well, as at the course across town.

When one or more greens are chronically ailing, it's usually the result of a combination of stresses rather than one factor.

Invariably, green committees and memberships want to look for a single cause to the problem — and a single, preferably quick fix.

Often, that quick fix is to rebuild the problem greens. Sometimes this is appropriate. But far too often a great deal of money is spent — and inconvenience endured — to end up with a green that performs only marginally

James F. Moore is director of the U.S. Golf Association Green Section's Mid-Continent Region.



better than the one that was plowed under.

The new green may have a well-drained root zone and new grass, but it's still plagued by inadequate light, poor air movement, limited cupping area, too few entrance and exit points, etc.

It's only a matter of time before these stress factors become just as damaging to that new USGA-sped green as they would be to the old pushup soil green.

Then, when the new green doesn't perform up to expectations, fingers are pointed at the superintendent, the USGA method of construction, the architect, or the grass selection.

The moral is this: Superintendents must educate their green committee and membership about the tenets of integrated turf management (ITM): The essential process of identifying and addressing all the stresses a green endures.

Critical to the long-term health of any turfgrass stand, this process enables superintendents to find ways to bolster the overall quality of a green, despite certain stress factors or problems that, for one reason or another, can never be completely elimi-

nated or corrected.

For instance, a superintendent discovers a high nematode count on a green.

Nematodes can place a tremendous amount of physiological stress on turf. But many of the more effective chemicals of the past are no longer available.

With the less-potent, short-lived products that remain, complete control is unlikely. The only alternative is to reduce the overall stress on that green by such methods as removing trees to provide additional light, or raising the cutting height.

Although the nematode population may remain the same, its ill effect on the health of the green is greatly reduced. This is ITM.

Even if chemical treatments could eliminate nematodes entirely, it would still be a mistake to only apply the nematicide and ignore the remaining stress factors.

All must be addressed to ensure the long-term health of your green.

To help assess the stress factors, I've developed a rating sheet that allows superintendents to graphically depict — for them and their green committees — the degree of impact that various stress factors may be having on each green.

It's not unlike a school report card which allows the superintendent to assign a grade (A, B, C, D, F) to each stress factor.

A key component of the report card is space to assign a grade for each green's performance over several seasons. This overall grade will indicate the combined impact of the various

| Stress Factors                        | Green Number |   |   |   |   |   |   |   |   |  | PG |
|---------------------------------------|--------------|---|---|---|---|---|---|---|---|--|----|
|                                       | 1            | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |  |    |
| Sunlight Exposure                     |              |   |   |   |   |   |   |   |   |  |    |
| Air Circulation                       |              |   |   |   |   |   |   |   |   |  |    |
| Root Competition                      |              |   |   |   |   |   |   |   |   |  |    |
| Purity of Stand (poa/bent)            |              |   |   |   |   |   |   |   |   |  |    |
| Disease Pressure                      |              |   |   |   |   |   |   |   |   |  |    |
| Insect Pressure                       |              |   |   |   |   |   |   |   |   |  |    |
| Walk On/Off                           |              |   |   |   |   |   |   |   |   |  |    |
| Cupping Area                          |              |   |   |   |   |   |   |   |   |  |    |
| Size                                  |              |   |   |   |   |   |   |   |   |  |    |
| Equipment Turning Area                |              |   |   |   |   |   |   |   |   |  |    |
| Surface Drainage                      |              |   |   |   |   |   |   |   |   |  |    |
| Internal Drainage                     |              |   |   |   |   |   |   |   |   |  |    |
| Irrigation Coverage                   |              |   |   |   |   |   |   |   |   |  |    |
| <b>Overall Historical Performance</b> |              |   |   |   |   |   |   |   |   |  |    |
| Greens Construction*                  |              |   |   |   |   |   |   |   |   |  |    |

\* — Construction Key: 1 — USGA-spec green; 2 — Modified USGA Green; 3 — Pushup Green (native soil)

Greens rated by: \_\_\_\_\_

Date greens rated: \_\_\_\_\_

stresses and illustrate which greens deserve the most immediate attention.

Once the greens are graded, the next step is to try to raise poor grades.

A superintendent may not be able to elevate each stress grade to an A. But a slight improvement in three or four factors will result in major overall improvement.

Consider, for example, a green with a C for overall performance. Judicious pruning of the trees adjacent to the green might improve the grades for sunlight, air circulation and root competition.

Although removing the trees entirely might bring the grades up further, this may not be possible without destroying the aesthetics of the hole. Nonetheless, elevating the rating for each of the stress factors will improve the green.

Better still, the overall grade can improve if ropes or signs can help give walk on/off patterns a higher rating, the superintendent use deep aeration to bring up the internal drainage rating, and reposition irrigation heads to elevate the irrigation coverage rating. This is ITM at its best.

When using the rating sheet, involving green committee members and golfers in the grading process can be crucial.

If nothing else, it helps drive home the point that successful greens management requires their support and understanding — particularly when it comes to removing trees, raising cutting heights, and controlling traffic.

And perhaps more important, it demonstrates that certain greens will never perform extremely well no matter what you do.

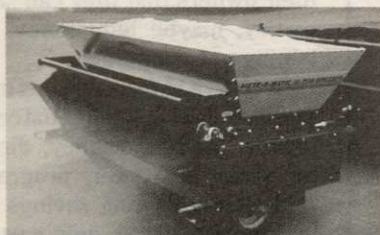
## Pennsylvania council donates \$225,000

The Pennsylvania Turfgrass Council has announced allocations of funds to the Pennsylvania State University for the 1995-1996 fiscal year. With its \$225,000 research grant, the council has now donated more than \$1 million to Penn State over the past eight years.

The Pennsylvania Turfgrass Council has a membership of more than 1,200, composed of golf course superintendents, lawn care owners/operators, landscapers, grounds managers, industrial representatives, and many others in the turf industry. The council serves as the voice of all turfgrass interests in the state. Many of the research efforts the council support help to lend credence to the public image as an industry concerned with its impact on the general public.

The organization's goals are divided into three major areas: fund raising for research, extension, and education; conduct educational conferences and regional schools, and representation in the turfgrass industry. It is governed by an elected Board of Directors, with turfgrass personnel from Penn State serving in an advisory capacity.

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Minneapolis, MN 55449-4420, (612) 785-1000 Fax (612) 785-0556



## A SCOTTISH HERITAGE

# History proves benefits of chewings fescue/creeping bentgrass combination

By VICKIE WALLACE

In cool-season climates, the concept of chewings fescue, creeping bentgrass fairways, tees and greens may sound new to some people. However, this combination has been used since golf was first made popular in Scotland and England, more than 100 years ago.

When the first golf courses were built in North America at the turn of the century, Scottish golf course architects brought with them the grassing concepts that were successful in Europe.

These grasses were used exclusively for tees, greens and fairways, because these species were and still are found growing naturally on many native links land sites in Great Britain.

It is no surprise that many of the golf courses built in cool season climates of the United States, from approximately 1890 through the 1930s, were seeded with a mixture of fescue and bentgrass. The most common formula was an 80/20 mixture by seed weight of Chewings fescue and bentgrass.

During the Great Depression there were few golf courses constructed, and it was not until the 1950s that a significant number of new courses were built. But at this time the fescue/bent combination seemed long forgotten, probably because there was no longer a direct influence from the old-time Scottish golf architects.

In the 1950s Penncross bentgrass and Merion Kentucky bluegrass were the new grasses to use for greens and fairways. Then in the 1960s, turf-type perennial ryegrasses were developed and introduced for use on fairways and tees.

Recently, the Scottish look has regained its popularity. Not because it is the only option for architects, but because the combination of chewings fescue and creeping bentgrass offers many benefits to the golf course superintendent for tees, greens and fairways. There are distinct advantages in using the two in combination.

One advantage is of particular importance for new golf construction as well as for courses that may be of high risk for "Take-all patch" disease. "Take-all patch" is a devastating disease and particularly damaging to creeping bentgrass.

Incorporating chewings fescue with creeping bentgrass alleviates the severity of the problem and/or can prevent extensive injury in high risk situations because the chewings fescue is resistant to the "Take-all patch" organism.

Areas of high risk include disturbed soils newly seeded to creeping bentgrass which previous to construction had been mature forest or wooded vegetation.

Also susceptible to "Take-all" problems are turf areas where the soil is consistently moist and in which the pH of the upper portions of the soil are high due to amendments such as lime or nitrogenous fertilizers.

To prevent problems during construction, turfgrass managers should seed Jamestown II chewings fescue or a comparable variety at the rate of 100 pounds per acre with 20 pounds of Southshore or L-93 or a comparable variety for fairways and tees.

For greens construction, apply seed at the rate of 3 pounds of chewings fescue with one-half pound of creeping bentgrass per

1,000 sq. ft.

After time, the fescue can then be "managed out" of the area through various maintenance practices once the high risk concerns are alleviated or in check.

Not only does chewings fescue aid in the prevention of "Take-All Patch" disease, but it also can tolerate a fairway and greens height of cut.

Density is maintained when

the bentgrass may become stressed during periods of extended moisture stress.

Use of the chewings fescue/creeping bentgrass combination provides a turf which can tolerate a greater "low maintenance" approach to turf care because the fescue can survive and tolerate lesser amounts of both water and fertilizer and still provide an acceptable turf on which to play.

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Golf Course Superintendent  
Hillendale Country Club  
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Baltimore, Maryland 21236

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# Internet travel expands in world of golf — from play to research

Colleges and universities were the first to step into the world of international information exchange through computers. Now golf course superintendents and architects have joined associations, businesses and many others in this new universe of the internet. Here is a list of World Wide sites. *Golf Course News* invites people involved in the green industry to contact us with additional sites to help this information exchange. Contact us at P.O. Box 997, Yarmouth, ME 04096; telephone 207-846-0600; FAX 207-846-0657.

## ASSOCIATIONS

American Pathological Society - Plant Pathology On-line  
<http://www.scisoc.org/>

GCSAA  
<http://www.gcsaa.org/gcsaa/> or  
<http://www.webplus.net/gcsaa/>

National Golf Foundation  
<http://www.gate.net/~ngf/ngf.htm>

National Hole-In-One Association  
<http://www.hio.com>

Professional Golfers Association  
<http://www.pgaonline.com>

PLCAA Home Page (Professional Lawn Care Association of America)  
<http://www.plcaa.org/>

USGA  
<http://www.usga.org>

## GOVERNMENT

E.P.A. Homepage  
<http://www.epa.gov/>

National Agricultural Library  
<http://www.nalusda.gov/>

U.S. Army Corps of Engineers Regulatory Site  
<http://wetland.usacc.mil/>

FIFRA  
[http://www.ornl.gov/Env\\_Rpt/csfifra.html](http://www.ornl.gov/Env_Rpt/csfifra.html)

The National Weather Service  
<http://www.nws.noaa.gov>

## UNIVERSITIES

Clemson Plant Pathology and Physiology  
<http://agweb.clemson.edu/PlantPath/plantpathhome.html>

Colorado State University's Entomology Page  
<http://www.colostate.edu/Depts/Entomology/ent.html>

Colorado Ground Water Institute Server  
g o p h e r : / /  
[igwmc.mines.colorado.edu:3851/](http://igwmc.mines.colorado.edu:3851/)

Divot  
<http://ubmail.ubalt.edu/~msmith/divot.html>

FAQ - Golf  
<http://dunkin.princeton.edu/.golf/faq/golf-faq.html>

FAQ-rec/sport.golf  
<http://www.cis.ohio-state.edu/hypertext/faq/bngusenet/rec/sport/golf/top.html>

Golf Archives at Princeton University  
<http://dunkin.princeton.edu/.golf/>

Guelph Turfgrass Institute  
<http://www.uoguelph.ca/GTI/gtihome.htm>

Iowa State's Entomology Page  
<http://www.public.iastate.edu/-entomology/>

Michigan State information on growing turf in domed stadiums  
<http://web.msu.edu/turf/turf-eng.html>

North Carolina State University's Virtual Library for Agriculture  
[http://ipm\\_www.ncsu.edu/cernag/cern.html](http://ipm_www.ncsu.edu/cernag/cern.html)

Penn State Turfgrass Information (wide variety of on-line articles about turf)  
<http://www.realtime.net/turfgrass/penn.htm>

Texas A&M University Turfgrass Information  
<http://leviathan.tamu.edu:70/1s/mg/turfgrass>

Texas Plant Disease Handbook  
<http://cygnus.tamu.edu/Textlab/tpdh.html>

Texas Plant Diversity Home Page  
<http://straylight.tamu.edu/tamu/tpdh.html>

U. of Florida Mole Cricket Information  
<http://gnv.ifas.ufl.edu/entl/mcricket/index.html>

U. Georgia Agricultural Extension  
<http://www.ces.uga.edu/ces/pubs.html>

University of Nebraska plant and Insect Parasitic Nematode Home Page (links to many other nematode information sites)  
<http://ianrwww.unl.edu/ianr/plntpath/nematode/wormhome.html>

University of Toronto Heritage Forest Plant Selection Form  
<http://www.clr.toronto.edu:1080/cgi-bin/heritage/plants/filename=chart.2.0.1>

Factors to consider when using wetting agents  
[http://hermes.ecn.purdue.edu:8001/http\\_dir/acad/agr/extn/agr/acspub/acsonline/WS-7](http://hermes.ecn.purdue.edu:8001/http_dir/acad/agr/extn/agr/acspub/acsonline/WS-7)

Federal Pesticide Record Keeping Requirements  
[http://ipm\\_www.ncsu.edu/safety/recordkeeping\\_faq.html](http://ipm_www.ncsu.edu/safety/recordkeeping_faq.html)

AGRIGATOR-UF/IFGAS Resources  
<http://www.ifas.ufl.edu/www/agator/htm/FLREC.htm>

Chemical Fact Sheets  
g o p h e r : / /  
[ecosys.drdr.virginia.edu:70/11/library/gen/toxics](http://ecosys.drdr.virginia.edu:70/11/library/gen/toxics)

Agronomy  
[http://info.acs.purdue.edu/agronomy/othragry/htm\(not.html\)](http://info.acs.purdue.edu/agronomy/othragry/htm(not.html))

Entomology  
<http://www.colostate.edu/Depts/Entomology/ent.html>

Entomology Index of Internet Resources  
<http://www.public.iastate.edu/-entomology/ResourceList.html>

FAIRS-Florida Agricultural Information Retrieval System  
<http://hammock.ifas.ufl.edu/>

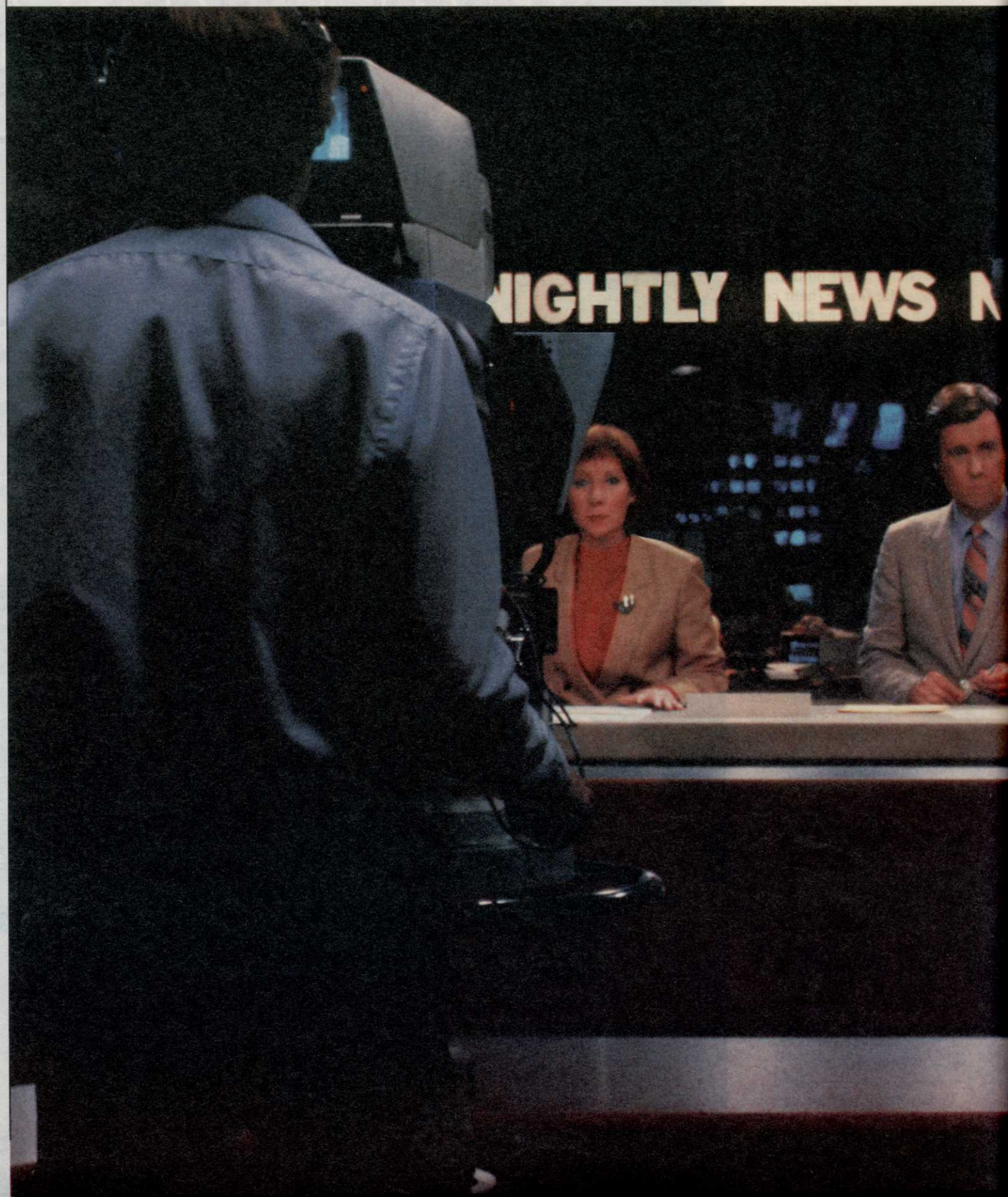
Golf Home Page  
<http://ausg.dartmouth.edu/~pete/golf/>

National Institute for the Environment  
<http://www.inhs.uiue.edu/niewww/cnie.html>

Nematology  
<http://ianrwww.unl.edu/ianr/plantpath/nematode/wormhome.html>

Continued on next page

# We'll keep the pesticide industry from





## 'Green' World Wide Web sites

Continued from previous page

Weed Control Information  
http://www.osaka-u.ac.jp:8080/-  
http://www.colostate.edu/Depts/IPM/  
natparks/turfweed.html

Turfgrass Response to Herbicides  
http://hammock.ifas.ufl.edu/txt/  
fairs/wg/18059.html

Turfgrass - not just a roadside attraction for people  
http://www.cas.psu.edu/docs/  
CASHOME/PROGPER/  
TURFGRASS.HTML

Southern Turfgrass Database  
http://gnv.ifas.ufl.edu/-entl/soft-  
ware/det\_turf.htm

Turfgrass Terminology  
http://gnv.ifas.ufl.edu/-entl/soft-  
ware/turf2.gif

Nematode Terminology  
http://gnv.ifas.ufl.edu/-entl/soft-  
ware/turf2.gif

Salt indexes of various turfgrass fertilizers  
gopher://psupena.psu.edu:70/  
0%24d%2028801205

Nitrogen fertilizers sources and information  
gopher://psupena.psu.edu:70/  
0%24d%2028801201

Description of Common Southern Turfgrass Diseases  
http://cygnus.tamu.edu/Textlab/  
Lawns/lawn1.html#Golf

National Parks Service IPM Manual  
http://www.colostate.edu/Depts/  
IPM/natparks/natpark.html

### CHEMICAL COMPANIES

American Cyanamide  
http://ipm\_www.ncsu.edu/com-  
pany/Cyanamid.html

BASF  
http://ipm\_www.ncsu.edu/com-  
pany/BASF.html

CIBA Crop Protection  
http://ipm\_www.ncsu.edu/com-  
pany/Ciba.html

Dow Elanco  
http://ipm\_www.ncsu.edu/com-  
pany/DowElanco.html

Dupont  
http://ipm\_www.ncsu.edu/com-  
pany/DuPont.html

Monsanto  
http://www.monsanto.org

Rohm and Hass Company  
http://www.rohmhaas.com/

### GOLF

GolfWeb  
http://www.golfweb.com/

GolfData  
http://www.gdol.com/

Golfnet  
http://www.win.net/~golfnet/

GolfNet [dec.com]  
http://cigww3.ecom.dec.com/mcs/  
golfnet/

GolfNet [digital-press.com]  
http://www.digital-press.com/  
golfnet/

GolfNet  
The 19th Hole  
http://www.sport.net/golf/

Golf Online  
http://www.golffonline.com

GolfWeb  
http://www.golfweb.com

iGolf  
http://www.igolf.com/

Scorecard Archive  
http://www.panam.edu/golf/  
CARD.html

Spectra.Net - Global Golf Network  
http://www.spectra.net

Sportlink  
http://www.sportlink.com/sport

USA Golf  
http://www.webcom.com/~tli/  
usagolf.html

World Wide Hole in One Club  
http://interchange.idc.uvic.ca/  
~golf/holein1.html

### ENVIRONMENTAL

The Enviroweb  
http://www.envirolink.org

Environmental World Wide Web Site  
http://www.webcom.com/~staber/  
welcome.html

### WEATHER

The Weather Channel  
http://www.infi.net/weather/  
index.html

Regional Climate Centers  
http://maestro.srcc.lsu.edu/.  
rec.html

### MISCELLANEOUS

Turfgrass Managers Information Service  
http://www.realtime.net/turfgrass

Agriculture  
http://www.cabi.org/cabi/

Fertilizers and descriptions  
http://www.scgt.oz.au/  
ferts.html#ferts

Horticulture  
http://www.ashs.org

Irrigation  
http://www.wiz.uni-kassel.de/kww/  
projekte.irr/irr\_i.html

Information Services for Agriculture  
http://www.aginfo.com

Integrated Pest Management Center  
http://www.realtime.net/turfgrass/  
cipm.htm

Additional information about fertilizers  
http://www.btw.com/  
garden\_archive/chap3\_toc.html

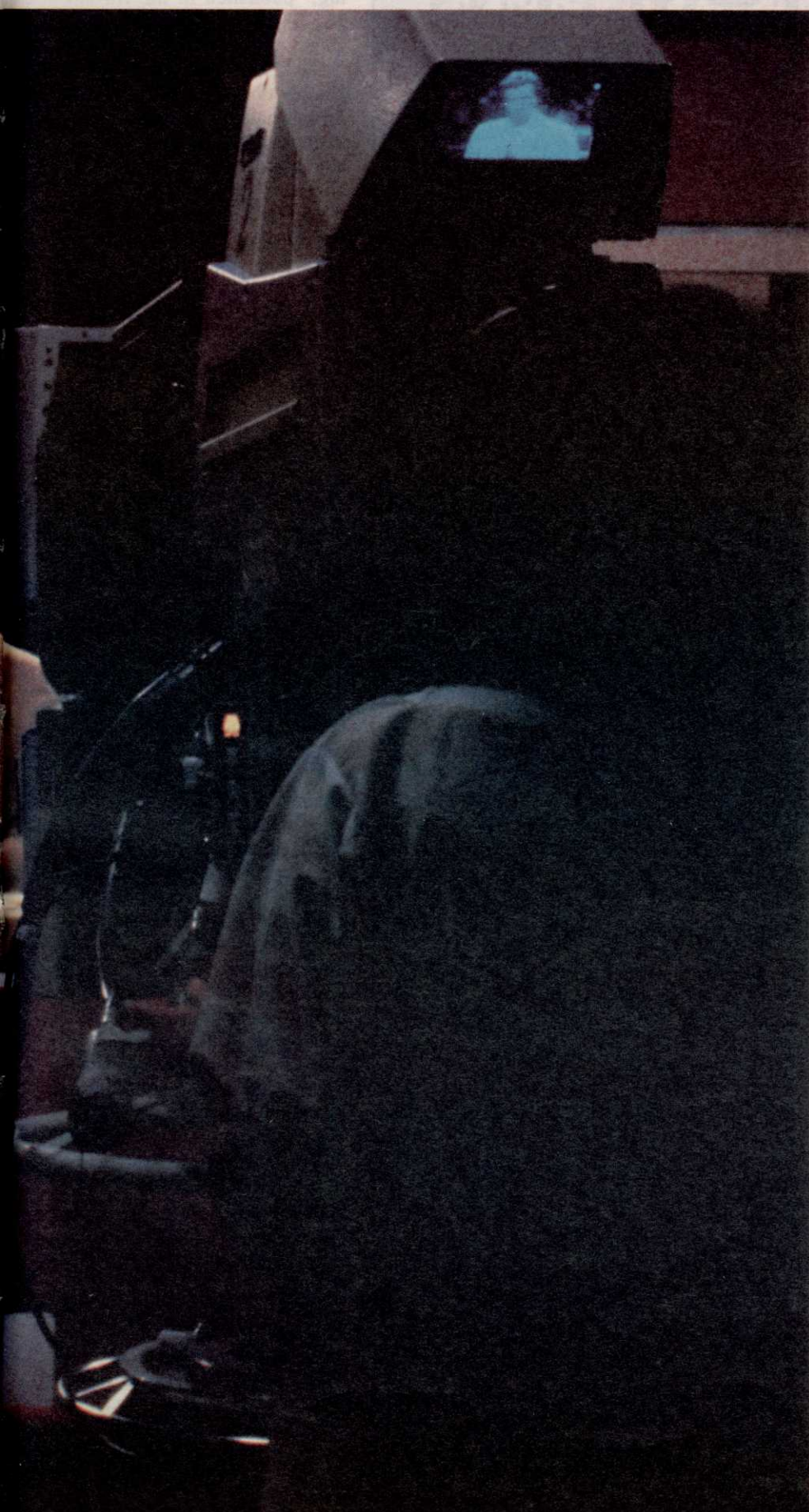
About Mulches and Grasses  
http://www.btw.com/  
garden\_archive/chap2\_toc.html

Native and Introduced Grasses, Seeds per pound  
http://www.realtime.net/turfgrass/  
gras.htm

Page 11 Turfgrass  
http://www.scgt.oz.au/page11.html

Toro Company  
http://www.toro.com/

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In addition to promoting environmental stewardship, RISE makes sure the media doesn't report misinformation as fact.

We also hold editorial meetings with media decision-makers. And respond to negative articles or broadcasts that are incorrect. We've been very successful so far. Not surprising considering what our most powerful weapon is.

The truth.

Of course, there's still a lot more work to do. But rest assured, RISE is up to the task.

Because we know if we eliminate air pollution, the pesticide industry can breathe a lot easier.



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Washington, D.C. 20005. ©1995 RISE RISB-0047-1



# Supers partners in Pesticide Stewardship Program

The Golf Course Superintendents Association of America has been formally accepted as a partner in the federal government's Pesticide Environmental Stewardship Program (PESP) when a strategy submitted by GCSAA for reducing pesticide risk on golf courses was approved by the Environmental Protection Agency (EPA).

PESP is a voluntary public/private partnership program sponsored by the EPA, the U.S. Department of Agriculture and the U.S. Food and Drug Administration. The partners work together to develop programs that protect human health and preserve the environment by reducing the risks associ-

## GCSAA UPDATE

ated with pesticide use.

GCSAA was eligible to become a partner in this program as an association representing pesticide users. GCSAA submitted a strategy of research, education and communication programs that demonstrates golf course superintendents' commitment to environmentally sound turf management choices, furthering the goals of the EPA and its sister agencies in the program.

GCSAA's research, education and com-

munication strategies are designed to increase the use of safer pest management products and practices to reduce risk to humans and the environment. Research will support the development of safer products and reveal new practices and technologies that reduce pesticide risk. Educated golf course superintendents will be more aware of the risks of pesticide use and be better equipped to manage pests safely and cost-effectively.

The United States Golf Association and Professional Lawn Care Association of America are among other green industry organizations involved in PESP.

## Writers contest winners announced

Bruce R. Williams, president of the Golf Course Superintendents Association of America has announced the winners of the association's 10th annual Golf Writers Awards competition.

The article chosen by the judges for first place was "The Tradition of the Tribe," which was written by Dave Anderson and appeared in the June 1995 edition of *Golf Digest*. Anderson will receive an engraved recognition plaque and a cash prize of \$1,000.

The second place prize of \$600 went to Mark Leslie for his story, "Courses, super withered by drought," which appeared in *Golf Course News*, October 1995.

The third-place award of \$400 went to Bob Labban for his article, "With the World Watching," published in the November 1995 edition of *Turf* magazine.

GCSAA's Golf Writers Awards competition recognizes writers for journalistic talent and effectiveness in informing the public about golf course management and the golf course superintendent's profession. Only articles and columns published in 1995 were eligible. The contest drew more than 30 qualified entries. The annual contest is open only to members of the Golf Writers Association of America (GWAA).

## Supers/players in int'l tourney

Continued from page 15

Ga.; GCSAA golf champion Jim Dusch, superintendent at Atlanta National Golf Club in Alpharetta, Ga.; and Vice President of the Golf Course Superintendents Association of Southern California Samuel Williamson of Ojai Valley Inn & Country Club in Ojai, Calif.

Nichols, Dusch and Williamson have been selected by the GCSAA board of directors based on their ability to represent the association as international ambassadors and on their golf ability.

"In our profession, like many others, communication is the key," said Williams. "Participating in this match will give us another opportunity to exchange ideas and learn how other turf organizations are handling the common challenges we face."

The balance of the Americas team will consist of four representatives of the Canadian Golf Superintendents Association and two representatives from the Argentina Greenkeepers Association.

The opposing team, from the Eastern Hemisphere, will be composed of four representatives each from the Australian, Spanish, German and Swedish greenkeepers associations.

GOLF COURSE NEWS

Seed Research of Oregon presents ...

## BEST 18 GOLF GREENS IN NORTH AMERICA

### Nominees:

Old Overton Club - Vestavia Hills, AL  
Club Terravita - Scottsdale, AZ  
Diamante CC - Hot Springs Village, AR  
Northview Golf & CC - Cloverdale, BC  
Nicklaus North at Whistler - Whistler, BC  
Brentwood CC - Brentwood, CA  
Silver Creek Valley CC - San Jose, CA  
Granite Bay Golf Club - Granite Bay, CA  
Sun City - Roseville - Roseville, CA  
Legacy Ridge at Westminster - Westminster, CO  
The Club at Cordillera - Edwards, CO  
Fox Hollow at Lakewood - Lakewood, CO  
Legends at Chateau Elan - Braselton, GA  
Lanier Golf Club - Cumming, GA  
Glen Oaks CC - W. Des Moines, IA  
Point Sebago Resort & CC - Casco, ME  
Cattail Creek CC - Glenwood, MD  
North Course at Stonehedge - Augusta, MI  
White Pine National GC - Hubbard Lake, MI  
CC of Lincoln - Lincoln, NE  
Sand Hills Golf Club - Mullen, NE  
Lightning "W" Ranch - Carson City, NV  
The Club at Genoa Lakes - Genoa, NV  
Santa Ana GC - Bernalillo, NM  
CC of Purchase - Purchase, NY  
Oak Hill CC - Rochester, NY  
Greenville CC - Greenville, NC  
Karsten Creek Golf Club - Stillwater, OK  
Oaks CC - Tulsa, OK  
Wyncote CC - Oxford, PA  
Bluegrass Yacht & CC - Hendersonville, TN  
Creekview Golf Club - Crandall, TX  
Denton CC - Denton, TX  
Turtle Hill GC - Muenster, TX  
Ridgewood CC - Waco, TX  
Sunrise GC - El Paso, TX  
Royal Virginia Golf Club - Louisa, VA  
James River CC - Newport News, VA  
Tri-Mountain GC - Ridgefield, WA  
Sumner Meadows GC - Sumner, WA  
North Bellingham GC - Bellingham, WA  
The Bog - Saukville, WI

Bruce Hospes  
Paul Ellwood  
Mandel Brockinton  
Jon Clark  
Darren Burns  
Mark Condos  
Nick Checklenis  
Jim Ferrin  
John Martin  
Scott Tuggle  
Tim Taagen  
Don Tolson  
Mike Brisbois  
Pat Stewart  
Tim Johnson  
Gerry White  
Kevin Pryseski  
Charlie Scott  
Bruce Wolfrom  
Charlie Hadwick  
Keith Nordick  
Tom Unruh  
Jed Anderson  
Gary Hodge  
Robert Miller  
Joe Hahn  
Bob Young  
Steve Wilcoxon  
Leon Stroike  
Mark Del Santro  
Jim Hinchman  
Jordan Eldredge  
Merlin Tielkemeier  
Danny Arena  
John Andersen  
Tom Broom  
Maurie Shields  
Jesse Parsons  
Dan Bierscheid  
Lee Anderson  
Rich Jahnke  
Pat Shaw

In our search to find the very best Providence, SR 1020 and Dominant creeping bentgrass greens, these golf courses and superintendents were nominated as the very best in North America. From these names, a winner will be judged, and awarded a trip to the 1997 International Turfgrass Conference in Sydney, Australia!

\* \* \*

Regional Finalists will be announced in next month's issue of this publication.

\* \* \*

Good Luck to all of our nominees!

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## Taeger places emphasis on 'organization'

Continued from page 16

lower fertilizer requirement. The only reason Taeger ever fertilizes it is to get a darker green color. During the growing season, however, it needs steady mowing. While it grows very fast in the summer, it shuts down in the winter, and needs mowing only every two weeks or so.

"A lot of my salesmen don't understand why I'm not buying much fertilizer or why I don't need more reye grass seed," Taeger said. "But I have a real common-sense membership here, and as long as the playability is good, esthetics comes second."

It may be helpful that his membership's average age is 74. With kikuyugrass, the ball nearly always sits up high, much like on a tee. It is an ideal surface for those who don't take deep divots.

An initial problem with kikuyu was that it kept creeping into the greens, marring the putting surface. Taeger found that he can keep it limited to the collar of the green by using a broadleaf herbicide called Turflon. "We used to spend a lot of man-hours just pulling kikuyu from our greens," he said. "Now we apply a very small amount of Turflon in August, September and October, at 30-day intervals with a backpack sprayer, and it does the job for us."

It is the business aspect of the superintendent's job that Taeger had to learn when he took the job at Village Country Club. "I have an engineering committee,

a beautification committee, a greens committee, a board of directors, a general manager, my crew, and my membership. All of these people want to be educated on what I'm doing and why I'm doing it," he said.

He is still smarting from his most recent mistake. He decided to have all the ball washers refurbished. His mistake was in sending them all out at the same time, rather than on every other hole.

Taeger has also had to con-

tend with a bacteria problem in his deep well. Shortly before he took the job at Village Country Club, a new irrigation system had been installed. The sprinklers were replaced with sprinklers with smaller orifices. Algae, which flowed through the Rainbirds, kept clogging the new sprinklers.

It took three years to diagnose the problem. It was finally determined the cause was an iron-reduction bacteria in the well. This bacteria adhered to

the walls of the main irrigation line. During the warmer summer months, clumps of algae adhering to the bacteria would break off and plug the sprinklers.

Taeger first thought the problem was in his lakes. He tried using copper sulfate in the lakes without success. Finally, he learned that farmers in the area were having the same problem with their drip irrigation lines. He believes he can now effectively treat the problem by dripping chlorine into the well.

Taeger has also joined "Turfnet," a program on the internet. Turfnet is now prima-

rily an East Coast program. What he is finding through internet chats is a way of comparing prices for things he needs to purchase. He feels he can save hundreds of dollars through this comparison shopping.

"I can sometimes buy products in Florida cheaper than I can from Los Angeles, and the company picks up the shipping charges and there is no tax," he said.

While Taeger is young, he is obviously progressive, and has determined where his priorities lie, which makes for a satisfying arrangement with both his workers and his club membership.

## Toro backs 'Par for the Course'

The Golf Course Superintendents Association of America has announced The Toro Co. has returned in 1996 as a supporting sponsor of the association's television show, "Par for the Course," which airs nationwide on ESPN.

"Par for the Course," which offers a look at the world of golf and its beauty, will return to ESPN for a second year in 1996. Twenty-five original, half-hour episodes will be produced this season. New episodes are airing each Sunday morning at 7:30 Eastern through Aug. 25.

As a supporting sponsor, Toro is receiving a logo billboard on "Par," which will appear after segments that highlight the playing fields of golf and include information about new course design and construction.

"Educating viewers about golf and the environment is a common goal of 'Par for the Course' and the Toro Co.," said Mike Anderson, director of marketing and service for Toro. "We are pleased to continue our partnership with GCSAA in presenting 'Par' and its entertaining and informative messages."

GOLF COURSE NEWS

## Pythium Gives You Two Choices.

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well as crown and root rot in established turf, plus damping-off in newly seeded areas. Banol

There's one sure way to stop a pythium problem. Banol® Fungicide. Because Banol controls the three forms of pythium in all types of turf. It controls blight as

can be sprayed when overseeding without harming germinating seedlings. In fact, its performance has been proven to be outstanding as both a preventative and a curative, with no damage to turf. Banol shows no signs of resistance development, either. So don't let ugly, balding patches scalp you. Stop pythium right down to the roots—with Banol.

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CIRCLE #125



# USGA, researchers looking for solutions to Bermudagrass woes

Continued from page 15

The increase in problems, O'Brien said, stems from Southern golfers "demanding playing conditions that bentgrass golfers are getting." Southern superintendents responded by cutting their Bermuda greens lower — to 5/32-inch height of cut on greens and 1/8-inch cut on fairways.

Bermudagrasses "were never meant to be exposed to this kind of stress," O'Brien

said. "By cutting shorter, we're noticing patches that disrupt the uniformity of the green and affect putting. These patches are a combination of genetic mutations and contaminations of other types of Bermudas."

In the 1960s and '70s, Bermudagrasses were cut at 1/4- or 3/16-inch and there were few problems, at least that could be seen, said Snow. "But by cutting lower, you see it. Either it was always there but not noticeable because of the



*Bermudagrasses 'were never meant to be exposed to this kind of stress.'*

— Patrick O'Brien  
USGA Southeast Region

higher grass, or cutting it down causes the problem."

Tifgreen and Tifdwarf — hybrids derived from Common Bermudagrass crossed with African Bermudas — have

been plagued by mutations almost since they were released by the University of Georgia's Dr. Glenn Burton as public varieties in the late 1950s, O'Brien said. Tifdwarf

was actually a mutation of Tifgreen that appeared just a few years after Tifgreen was introduced.

Now, Snow said, the question is: Why does it seem to be occurring more quickly and with greater frequency now than 20 years ago?

"It seems that since we've gone to lower cutting heights, these off-types have happened more quickly. Is it a genetic reason, or are there contaminants that exist all along but are more observable at the lower heights?"

The problem is exacerbated, O'Brien said, because little of the Bermuda sod or sprigs being grown is certified, and "most people are not even aware there is a difference."

In Georgia, for instance, less than 1,700 of the 12,000-plus acres of Bermudagrass sod and sprig is certified each year, according to the Georgia Crop Reporting Service.

"And, unfortunately," he said, "in a lot of states the certification programs are not closely monitored."

A more stable Bermudagrass is the final aim, Snow said, adding that research might scrutinize Bermuda from the angles of genetics and contamination, and answer the question of how to certify sod and sprigs as pure.

Some help may lie in the upcoming release of putting-green-quality Bermudagrasses, such as the University of Georgia's TW72, which will not be a public variety.

...

In the meantime, how do superintendents and golf course builders ensure they are getting the best Bermudagrass?

"You go to the nursery yourself, block off the area you want, be there when they cut the sod and follow the truck back to the golf course," Snow said. "The fact is, people just call sod companies, order X feet of Tifdwarf, and proceed in complete faith that they will get what they order. If you're concerned, take those extra steps and that will reduce the odds of imperfection."

"It comes down to house-keeping," Snow added, "both by the sod producers [by fumigating their fields more often] and the courses and superintendents themselves."

When the Bermudagrass problem is solved, O'Brien said, golf courses "will probably pay a lot more for these grasses because of inspection costs and growers needing to do a lot more to maintain their fields."

"If nothing happens, we will still have the problems — and those problems are all throughout the South."

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## Turf geneticists making strides toward perfection

Continued from page 15

format. And little collaboration exists between scientists working on different aspects of turfgrass improvement.

"This is an exciting time," said MSU biotechnologist Dr. Mariam Sticklen. "This is Step Two in the Green Revolution. Step One was plant breeding. Genetic engineering research is taking even greater steps."

The associate professor in MSU's Department of Crop and Soil Sciences explained genetic engineering as "tailored plant breeding."

"With breeding, you are mixing up genes with the hope that you get rid of the bad genes, essentially," she said. "But with genetic engineering you are tailoring the whole process. You are cutting the genes that you are interested in and putting them in the plant."

"Also, in plant breeding you can not take a gene from a pathogen, which would be herbicide-resistant, or a bacterium which controls insects, and put it in turfgrass. With genetic engineering, you can..."

Saying that problems still need to be solved, Sticklen added: "This is just the beginning. I'm talking about [dealing with] pathogens, insects, stress factors... We have a long way to go in the evolution of turfgrass science."

But already, MSU has developed a creeping bentgrass that is resistant to herbicide, brown patch and dollar spot. And, she said: "We have the capabilities to develop dwarf turfgrass, insect-pathogen, heat, drought-, cold- and salt-resistant turfgrass — anything that anyone could wish."

"If we had the finances, we could do this in a very short period of time — a maximum of three to five years for the laboratory work."

MSU is using bentgrass in its research because "we had it here and when we started working on it, it became a model system," Sticklen said. "Some of the turfgrasses may be more difficult than others. It's not that genetic engineering would be much different. It's that the efficiency of *in vitro* culture or regeneration *in vitro* might be different."

The work of cell and molecular genetics — which ranges from gene cloning to genetic engineering to bringing [the results] to breeding and to the field level and so on — is "very labor-intensive, highly technological and it's information-intensive," Sticklen said.

The USGA-MSU conference will address that information intensity.

Researchers, breeders and

others in the industry will hear talks under the general topics Turfgrass Molecular Marker Analysis; Biological Control, Including Endophyte Strategies; Genes with Potential for Turfgrass Improvement; *In Vitro* Culture and Genetic Engineering of Turfgrass; and *In Vitro* Culture and Genetic Engineering of Turfgrass.

More information on the conference is available from Kenna at 405-743-3900, or Sticklen at 206 Pesticide Research Center, MSU, East Lansing, Mich. 48824; 517-353-9140, or FAX 517-353-1698.



## HEAVEN-BENT AT HELL'S BUNKER

Superintendent Tony Gustaitis of Whitmarsh Valley Country Club in Lafayette Hill, Pa., prepares to blast out of the infamous Hell's Bunker during a round at St. Andrews Old Course in Scotland. People might remember Jack Nicklaus taking five strokes to get out of this bunker during the British Open last year. Gustaitis slapped the ball out in one attempt. Gustaitis' round was part of the expense-paid trip for two to Scotland that he won from American Cyanamid Co. during the International Golf Conference and Show last year. The trip included five rounds of golf at various courses in Scotland.

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Summer stress conditions can prompt a rapid reduction in turf quality in tees, greens and fairways. By mid-summer, effects of extensive wilt, Localized Dry Spot (LDS) and turf decline are evident on this untreated tee (ladies tee box). Soil cores from symptomatic areas (inset) were powder dry, even after irrigation.



## TREATED

Monthly applications of Primer 604 (started in late spring) on the men's tee box (of the same hole), showed superior turf quality. Even under conditions of severe summer stress, no afternoon wilt or LDS was observed. Soil cores from treated tee (inset) were uniformly moist, indicating improved penetration, infiltration and distribution of applied water (rainfall or irrigation).

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The O. J. Noer Research Foundation, Inc. has announced four new grants covering a variety of interests in the turfgrass industry. Recipients include:

- Dr. Wayne Hanna, Coastal Plain Experiments Station, Tifton, Ga., toward developing fine textured seeded Bermudagrasses;

- Dr. Robert Shearman, University of Nebraska, to lead a study on the impact of cultural practices on putting greens and their microbial communities;

- Dr. Henry Wilkinson, University of Illinois, to study genetic resistance to patch diseases by bluegrasses and bentgrasses; and

- Dr. Joe Vargas, Michigan State University, who will continue his work on anthracnose crown rot of *Poa annua*.

The grants were approved at the annual meeting of the Foundation during the 1996 Golf Course Superintendents Association of America Conference and Show in Orlando, Fla., according to Research Director Jim Spindler.

## RBI web site a diversity of golf industry interests

LITTLETON, Colo. — RBI Companies, a contracting group based here, is talking dirty on the world wide web, or rather dirt; moving it, shaping it, hauling it and creating golf courses from it.

Sound interesting? Not initially, but when you dive into RBI's home page at <http://www.abwam.com/rbi>, you'll see the construction of the field at Texas A&M, golf courses under construction and recently completed, and you can even visit the Cheyenne Mountain Zoo.

What you will find at <http://www.abwam.com/rbi>

- RBI Sport: Weekly photos of the field construction at Texas A&M with status reports. Soon to be added to this site: The facts on RBI's contract with Iowa State for its new football field.

- RBI Golf: Photos of courses recently completed, under construction and even new golf courses barely on the drawing board.

- Randall & Blake, Inc.: RBI's full-service capabilities throughout the western United States in every aspect of construction from site development/utilities installation to landscape maintenance.

### GCSANJ SUPPORTS SCHOLARS

The Golf Course Superintendents Association of New Jersey has awarded scholarships to five students. They are John Genovesi of the University of Rhode Island and Scott Fretz, Keith Kubik, Paul Stampa and Yi Wang of Rutgers University. All intend to pursue careers in the turf industry.

## Noer Foundation awards four grants for turfgrass research

Also, President William R. Schmidt announced the Board of Directors was expanded from 9 to 12, with the addition of Wally Fuchs, Turf Products Ltd., West Chicago, Ill.; Dick Morey, Brantwood Publications, Clearwater, Fla.; and Jim Latham, Whitney, Texas, as secretary.

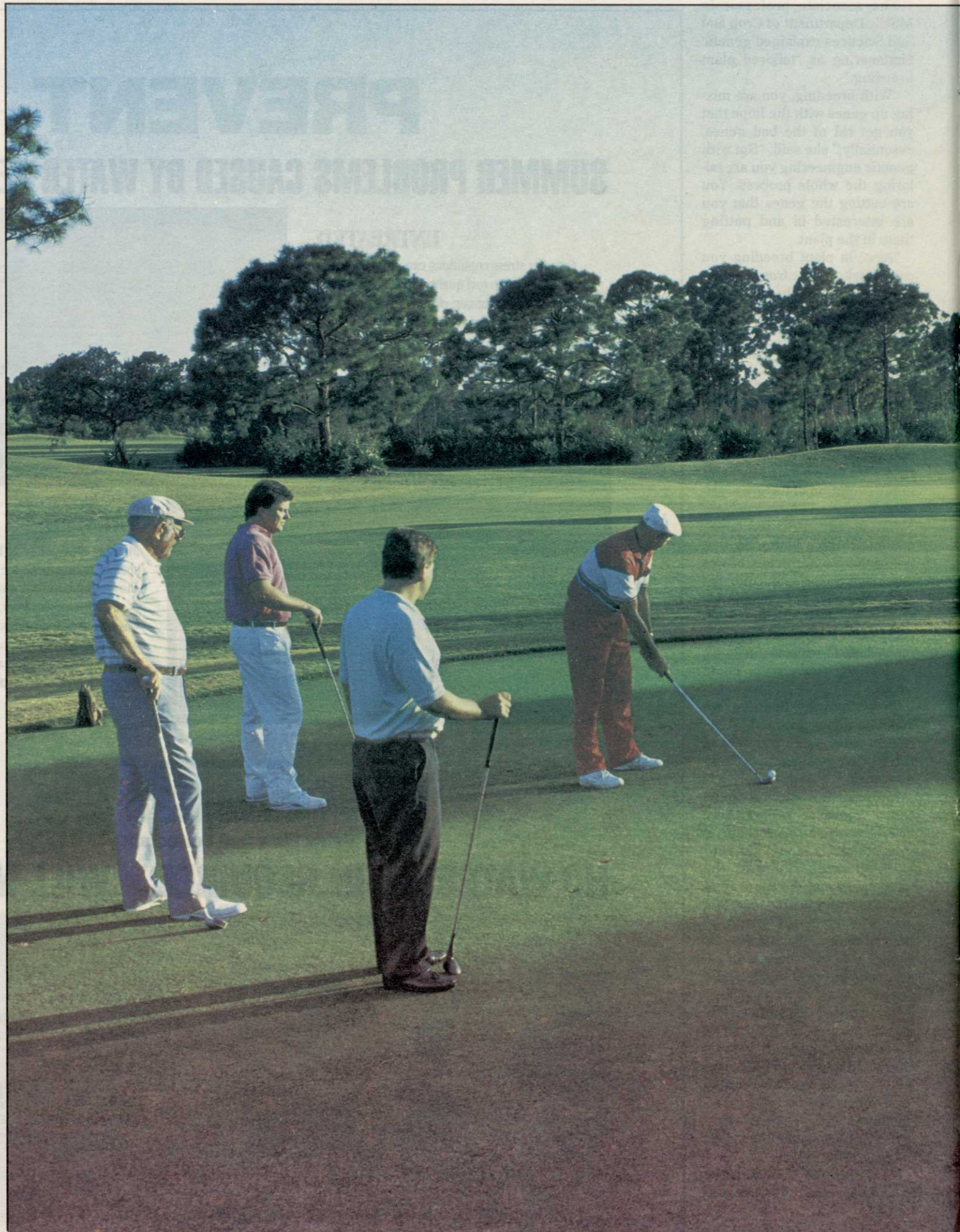
The Foundation was created in 1959 to honor O.J. Noer, who

was known internationally for his expertise in turfgrass agronomics. His career as agronomist for Milorganite spanned 40 years, during which he worked closely with golf course superintendents and other professionals in turfgrass management. His many contributions to the turfgrass industry were acknowledged by the GCSAA's dedication of the 1960

International Turfgrass Conference to him, and the USGA's presentation of the Green Section Award in 1963. He is also the only non-golfer in the Wisconsin Golf Hall of Fame.

The purpose of the O.J. Noer Research Foundation is to fund basic turfgrass research. This has provided a vehicle for many students to receive advanced degrees. Since its inception, it

has provided over \$400,000 for turfgrass research, as well as establishing a means for the Turfgrass Information File at Michigan State University to purchase rare books for its collection. Funds are generated through membership subscriptions, contributions from individuals, professional associations and turf-oriented corporations. Milorganite distributors have been especially helpful, as well as the Milwaukee Metropolitan Sewerage District which makes annual contributions based on Milorganite sales.





## North Central



### MIDWEST JOINS PLATINUM TEE CLUB

The Midwest Association of Golf Course Superintendents (MAGCS) has become the newest chapter member of the Golf Course Superintendents Association of America's Platinum

Tee Club with a \$5,000 contribution to The GCSAA Foundation.

The contribution was raised by volunteer donations from chapter members when paying chapter dues.

The MAGCS is the first chapter to become a Platinum Tee Club member this year.

### HAGCSA PLANS FUND-RAISER

LEAWOOD, Kan. — The Heart of America Golf Course Superintendents Association (HAGCSA) has scheduled its 12th Annual Scholarship and Research Tournament at

Leawood South Country Club here on June 17.

Funds generated by the event help continue HAGCSA's commitment to fund research at Kansas State and the University of Missouri-Columbia.

They will also provide scholarships to students planning careers as golf course superintendents.

More information on the tournament, or to donate to the fundraiser, people may contact David Dettmer at Lawrence Country Club, 400 Country Club Terrace, Lawrence, Kan. 66049; telephone 913-842-0592.

## Northeast

### UMASS ADDRESSES PROBLEMS

WALTHAM, Mass. — The University of Massachusetts Extension Service has scheduled a workshop on Recognizing and Diagnosing Problems of Turf here, Aug. 29.

The 3 to 5 p.m. session will focus on an integrated approach to turf management and pest control of the most trouble-

some weed, insect and cultural problems.

Two contact hours of pesticide credits will be offered for category 37 and applicator's license. A \$35 fee is being charged, and registration is limited.

Meanwhile, landscape and nursery workshops are scheduled for June 6 in Sandwich, June 11 in Amherst and June 12 in Stockbridge.

For more information and to register, people should contact IPM Workshops, UMass Extension, French Hall, Box 32910, Amherst 01003-2910.

### NEW ENGLAND GOES SPIKELESS

FRANKLIN, Mass. — At the monthly meeting of the Golf Course Superintendents Association of New England (GCSANE) held at Franklin Country Club, the board of directors voted to have all golf events of the association conducted using spikeless golf shoes.

Michael Hermanson of Gardner Municipal Golf Course, the group's golf chairman, said he was pleased that the GCSANE was taking a leadership role in an area that will directly improve playing conditions.

Hermanson said: "There is overwhelming evidence from both the USGA and independent university researchers that the use of spikeless golf shoes improves the quality of putting surfaces."

As the professionals who are responsible for green quality, I'm pleased to be part of the spearhead for spikeless shoes."

The GCSANE is not endorsing any specific brand or type of shoe.

### PROVIDENCE HOSTING CONCLAVE

PROVIDENCE, R.I. — The Rhode Island Turfgrass Foundation (RITF) will present the Second Annual Rhode Island Turfgrass Show and Conference at the Rhode Island Convention Center here, Dec. 4-5.

The show will feature more than 200 turf-related booths, as well as a program of workshops and seminars. Educational sessions will cover market trends, and Pesticide Applicators Recertification Credits will be offered for all New England states, New York and New Jersey.

The RITF has joined forces with the Connecticut Association of Golf Course Superintendents. RITF is a non-profit organization created to benefit the New England Golf & Green Industry. Proceeds from the show will assist the University of Rhode Island and turf research.

Advance passes are \$30 for one day and \$50 for two days. All passes include lunch and show reception. Special student rates will be available at the door with a valid student identification.

More information is available from the show office at 401-847-7666.

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But, did you know that we've developed **TERRANE SP** Turf Fungicide with another four in mind. The foursome that play your course, walk your fairways, divot your tees, and scuff your greens all day long. **TERRANE SP** does more than give them the best looking surface possible. It's low toxic, biodegradable formula allows you to apply **TERRANE SP** in the evening and have your course ready for 6:30 A.M. tee off.

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#### **Unmatched aeration capabilities**

Otterbine has the highest oxygen transfer rate of 2.3 pounds per horse power per hour, based on published independent testing by Auburn and Louisiana State University. Each motor is built to run at the lowest RPM rate so you can expect years of dependable service with

unmatched aeration capabilities, unlike high speed motors that sacrifice operating efficiency and aeration capability.

#### **No more inconvenient repairs**

The Otterbine warranty is the best in the industry – 2 years on all moving parts and 5 years on all non-moving parts – while most standard warranties only cover you for 1 to 3 years. Plus, with over 60 authorized Otterbine service centers around the globe, you'll never have to worry about fixing an aerator yourself, or sending it long distances for service – which would mean long down times and greater expense.

#### **Learn more about water management**

Otterbine is the leader in the science of aeration. Read what we've learned in 40 years as the market leader in aeration – ask for your free copy of "Pond & Lake Management." It's a guide to help you make the right decisions on aerator sizing, placement, and the scientific reasons behind those recommendations.

Otterbine offers a diverse line of products that include

both surface and subsurface aerators, lake dye, portable pumps, ozone generating and delivery systems, plus much more.



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CIRCLE #129



## Ozone systems gaining popularity as means to clean golf course ponds

By PETER BLAIS

**E**DWARDS, Colo. — Every so often, Country Club of the Rockies superintendent Kevin Ross stops his utility vehicle on the bridge spanning the pond bordering the 9th and 18th holes here. He takes a couple earthworms and tosses them into the water.

The worms are just beginning to settle when out from under a rock flashes Walter, a 5-pound rainbow trout club members named after the lunker Henry Fonda finally caught in the movie *On Golden Pond*. Walter gulps his lunch and heads back home.

Ross witnesses all this through the crystal clear water running under the bridge. Members tell him several years ago he wouldn't have seen a thing. In fact, he probably would not have stopped his vehicle at all because of the odor from the pond.

"They put in an ozone system and some grass carp in the summer of 1994," said Ross, who took over the private facility a year ago. "Members have told me the situation is 10 times better than it was in the past."

Algae-choked lakes and ponds are an unsightly and smelly problem, especially in summer. Runoff

containing materials such as phosphorus, nitrate, ammonia and sulfate finds its way into the ponds and acts as fertilizer in water. The added nutrients give rise to algae blooms and rooted aquatic vegetation. Plants die and organic material settles to the bottom, decomposing and releasing more nutrients for aquatic plants and algae.

In a well-balanced system, naturally occurring bacteria decompose the organic nutrients. But as algae levels increase, oxygen levels decrease, and bacterial composition slows. With limited oxygen, other noxious gases such as methane, ammonia and hydrogen sulfide are produced. These gases cause odors that offend golfers and sometimes kill fish.

Fountains and submerged aerators have long been used to introduce more oxygen to the ponds.

In the past few years, air diffusion systems (ADS), like the one at Ross' course that place ozone along the pond bottom, have gained acceptance. Ozone consists of unstable oxygen molecules with three oxygen atoms rather than the two found naturally in air.

Continued on page 42



The effects of treating a pond (left) with a bioaugmentation product as opposed to leaving it untreated (right) are obvious at Ridgewood Country Club in Danbury, Conn. (Photo supplied by TerraBiotics)

## Bioaugmentation offers natural alternative




The following technical bulletin was written by Jim Beer, bioaugmentation product manager for AquaScape, a Toro Co. partner. AquaScape is set to introduce an as-yet-unnamed bioaugmentation product. Several other companies market bioaugmentation materials, descriptions of which can be found on page 40.

Bioaugmentation is the process of improving water quality by the addition of naturally occurring microorganisms. Water quality is increased by alleviating such strains as organic build up, anaerobic decomposition and excessive plant and algae growth. Microorganisms such as bacteria cultures, enzymes and essential nutrients break down organic sludge, eliminate noxious by-products of anaerobic decomposition and limit plant and algae growth.

Leaves, grass, fish waste, dead aquatic plants, and airborne particles all contribute to the organic load on a pond. Depending on the amount of organics deposited in a pond and the concentration of bacteria and enzymes in the water, an undesirable sticky, black sludge may result at the bottom of the water column. Enzymes, produced by bacteria, break down organics into simple nutrients which


Continued on page 42

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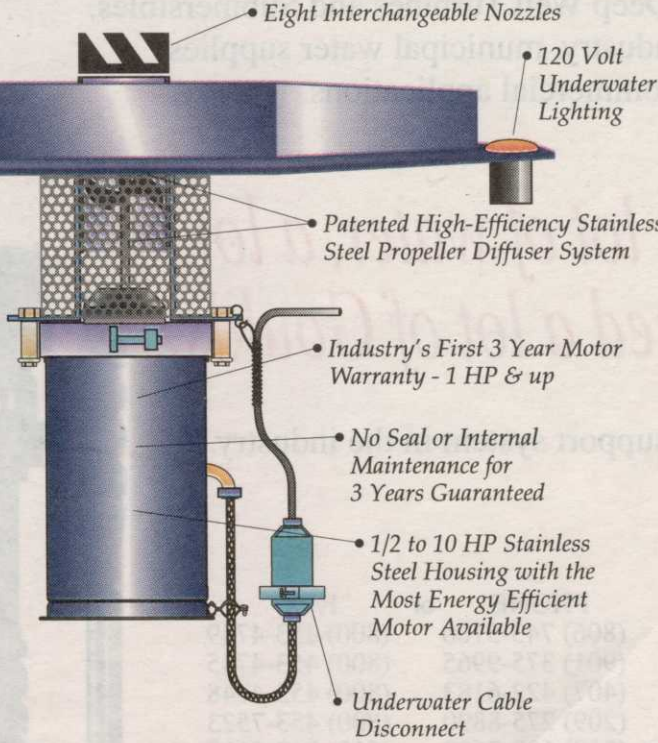
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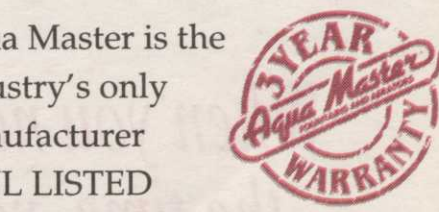

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BacMan comes in 1-pound, water-soluble packets. Initial application is generally four to eight packets per pond acre foot. Subsequent additions of one packet per acre foot are recommended every two

weeks during the season.

BacMan maintains natural microbial balance for clean, healthy ponds; retards scum development and odors; controls algae growth; consumes sediments and particulates; stabilizes oxygen levels for healthy aquatic life; reduces nutrient imbalances; and digests fertilizer runoff. For information call 800-826-GROW.

CIRCLE #306

## Pond scum controlled with TerraBiotics' bacteria

Aqua-T from TerraBiotics uses bioaugmentation to control pond scum and foul odors that commonly plague golf course ponds.

The program consists of regular treatments of Aqua-T throughout the growth season and requires no applicator's license or permits.

Aqua-T is a blend of naturally occurring soil and water bacteria that remove the algae's primary food sources, nitrogen and phosphorous, from the pond. This drastic reduction in nitrogen makes it impossible for al-

gae to bloom.

Aqua-T works in the entire water column and sludge layer to digest any organic wastes that are generated by plant and animal life in the aquaculture. The product is also safe for irrigation ponds as it is not an algicide.

Aqua-T will remove excess fertilizer, nitrogen and phosphorous that cause algae; clarify the water column and de-sludge the pond bottom by digesting dead organic matter; eliminate odor through bioremediation of ammonia and hydrogen sulfide;

improve potability of water resulting in healthier fish populations; and stabilize pH, dissolved oxygen, biochemical oxygen demand, hydrogen sulfide and ammonia.

Winners of the Audubon Society of New York 1995 Environmental Steward Awards that use Aqua-T are Barton Creek Resort & Clubs in Austin, Texas; Cape National Golf Club in Erma, N.J.; Gold Canyon Resort in Apache Junction, Ariz.; Minnesota Valley Country Club in Bloomington, Minn.; and Winchester Country Club in Winchester, Mass.

For more information, contact TerraBiotics, 500 Alexander Park, Princeton, NJ 08540; telephone 800-988-8257.

CIRCLE #307

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## Biodegradable packets arrest algae growth

New LakePak WSP from Turf Health Care, L.C. is a concentrated microbial based product that provides a safe, effective method for biodegrading nutrients and organic matter in golf course ponds to improve water clarity and quality.

LakePak WSP contains a proprietary blend of over 17 beneficial bacteria strains to provide quick, consistent results. These bacteria consume nutrients and organic materials that lead to algae blooms. LakePak WSP also contains "facultative bacteria" that survive in both anaerobic and aerobic conditions, which is important to help reduce sludge and organic sediments in the bottom of the pond. LakePak WSP is non-toxic to humans, fish or other animals, and an applicator's license or permit is not required.

The typical initial LakePak WSP dosage is three pounds per acre foot, followed by 1/2 pound per acre foot every two weeks. Each box of LakePak WSP contains 6 x 1/2 lb. water soluble packets for easy application, with 24 packets per case.

LakePak WSP is now available through local turf and ornamental distributors.

For more information contact Turf Health Care, L.C., P.O. Box 447, Ames, Iowa 50010; or call 800-418-9333; or fax 515-232-5961.

CIRCLE #308



## Ozone generators pass stringent tests

RGF O<sup>3</sup> Systems, Inc. announces all models of its Turbohydrozone line of ozone generators have passed stringent testing and evaluation by Underwriter Laboratories (UL) and are now UL listed.

The Turbohydrozone line consists of ozone generators designed to reduce bacteria, algae, chemical oxygen demand, bacteria oxygen demand, color, pesticides, herbicides and insecticides and other waterborne substances. The products can, in addition to wash water recycling operations, be used to reduce algae growth and purify water in ponds, lakes and fountains.

In addition, the unit works on a 110V standard electrical outlet and has low power consumption. The ozone generator is housed with UV protected PVC and aluminum. The ozone output varies on the different models offered in the Turbohydrozone line.

For more information on these products, please contact RGF O<sup>3</sup> Systems Inc., at 800-633-7743; or fax 407-848-2170.

CIRCLE #309

## Subsurface ozone aeration equipment now available from EP Aeration

EP Aeration has announced availability of its new EP LK-Outdoor Series subsurface activated oxygen aeration systems. The EP LK-Outdoor Series is designed for stand-alone, outdoor installation, and is quieter and more compact than previous outdoor systems.

"Our EP LK2000 series, designed for vault and pumphouse mounting, is highly successful," said Michael McGee, president and general manager of EP Aeration. "We've received an increasing number of inquiries for outdoor systems over the past couple of years, but felt that the cabinet options previously available were both bulkier and higher-cost than many

of our customers wanted.

The EP LK-Outdoor contains both ozone generation and air compression equipment. New filters render the unit quieter, while the cabinet is much lighter and smaller than previous outdoor units. The EP LK-Outdoor is approximately 40 inches high, 20 inches wide, and 18 inches deep. The new unit is comparable in price to the EP-LK2000 complete with vault or pumphouse rack-mount. EP Aeration also offers a full line of bio-augmentation and esthetic water maintenance products. For further information, contact McGee at 805-541-6140, or by fax at 805-541-6149.

CIRCLE #310

## Fluid Systems booklet provides product specs

A new 20-page technical booklet, available from Fluid Systems, provides detailed product line specifications and applications information on the firm's entire line of geotextiles, geogrids, and ancillary products.

Detailed information is provided on eight product lines. In addition, details on key features — along with application notes — provide guidelines for product use. Information on ancillary products, including covers and erosion control prod-

ucts, is also covered in this new booklet.

Fluid Systems is a leading supplier of a wide range of geosynthetics for the waste containment industry, including Poly-Net drainage nets and Tex-Net geocomposites, Bentofix Thermal Lock GCLs, geogrids, erosion blankets, plastic safety fences, HDPE and PVC piping, HDPE manholes, and Sani-Cover geotextile alternative daily covers. For more information, call 800-346-9107.

CIRCLE #311

## Toro offers aerator for shallow ponds

The new Toro Fountain/Aerator, manufactured by AquaScape, is designed to enhance any aquatic setting.

The decorative spray patterns not only add visual interest but assist the natural aquatic rejuvenation process by increasing dissolved oxygen levels, providing needed circulation and maintaining aerobic conditions throughout the water column.

The Toro Fountain/Aerator is ideal for shallow ponds and lakes three feet and deeper. The fountain is available in 1/2-, 1-, 2-, 3-, 5-, 7 1/2- and 10-horsepower models, 1- or 3-phase. The unit features a high-volume, all-stainless-steel pump and proven stainless steel submersible motor. Made from ultraviolet resistant polymer, the foam-filled float will not sink even if punctured. An optional underwater lighting system is also available.

For additional information and the name of the nearest TORO distributor contact: AquaScape at 800-569-1345.

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CIRCLE #133



## Ozone systems

Continued from page 39

"Ozone is more reactive with water than regular oxygen," explained Bill Logan, president of Aqua Sierra Inc., which installed The Country Club of the Rockies' and 40 other golf pond systems nationwide. "It is very aggressive helping bacteria physically take apart organic matter."

Aqua Sierra's system involves injecting compressed, ozone-containing air (ozone is created by exposing air to a 185-nanometer ultraviolet light) to the lake bottom where it is dispersed through a network of polyethylene tubing weighted with quarter-inch lead thread. Bubbles emerge from the tubing pulling cold, oxygen-poor water to the surface, where it picks up more oxygen.

If run continuously, it turns over the water in a typical pond eight times a day, although systems are generally run 12 hours at a time, Logan said. This action also breaks up the thermocline, a transition zone typically found at depths of 6 to 14 feet within the water column. Within the thermocline the temperature quickly drops from as much as 70 degrees at the top to as low as 38 degrees at the bottom. The thermocline isolates the top from the bottom of the pond and allows little oxygen to pass through.

An Aqua Sierra system costs \$2,000 to \$4,000 per acre of treated pond surface. While more expensive than surface aerators, an ADS saves electricity, Logan said. A 1 1/2-horsepower compressor is sufficient to treat a one-acre pond with

ADS, whereas a surface aerator would require a 5- to 10-horsepower unit to treat the same area, he added.

Other companies manufacture and install ozone systems. Atlantic Ultraviolet Corp. of Hauppauge, N.Y., has begun marketing its Eco-Logic Pond and Lake Reclamation System. The company has tested the product in several Long Island locations for the past three years, including a tidal pond at Inwood (N.Y.) Country Club, according to Director of Marketing Ann Wysocki.

"I've noticed a definite improvement since we put it in," said Inwood superintendent Pete Ruggier. "Because it's tidal, the ocean pushes much of the algae and other debris back to the shore every day. I'm sure it would work better in an enclosed pond. I spoke to a greenkeeper who uses it in a pond at a private estate in Melville. He said the water quality used to be terrible, but now it's crystal clear. It also solved major problems at a pond in front of the IBM headquarters building in Armonk, N.Y."

RGF O<sup>3</sup> Systems Inc. has used ozone since 1985 to reduce pollutants in wastewater treatment systems. The West Palm Beach, Fla firm recently introduced its O<sup>3</sup> Aqua Aeration System to keep golf course ponds free of algae, biological oxygen demand, oils and pesticide runoff. It comes with a compressor and RGF's unique macro aeration hose, according to company literature. The golf pond unit is so new that few have been installed, said sales representative Sharon Plunkett.

## Bioaugmentation

Continued from page 39

the bacteria use as nutrition. A variety of enzymes are necessary for the chemical break down of complex molecular organics. Lipase will break down animal or plant fats and grasses, protease attacks proteins, cellulase degrades cellulose while amylase transforms carbohydrates and starches. The results of these reactions are increased nutrient levels which are able to sustain a healthy bacteria population and a dramatic reduction in the presence of organic sludge in the pond.

Many bacterial cultures require oxygen as well as organics to survive. These organisms are classified as aerobic bacteria. Aerobic bacteria use oxygen to digest nutrients by the following simplified reaction:

Organics + Water + Enzymes = Water Soluble Nutrients + Oxygen + Bacteria = Water + Carbon Dioxide

This reaction shows the importance of oxygen and how it relates in breaking down organic waste without odorous or noxious by-products. An additional benefit of aerobic decomposition is that it is considerably quicker than anaerobic decomposition. For this reason it is highly recommended to use bioaugmentation products in conjunction with some type of aeration equipment.

Excessive aquatic plant and weed

growth in a pond is due to several factors. For plant life to flourish, the water must contain essential nutrient levels, beneficial light, carbon dioxide and be within a certain temperature range. Bacteria compete with plants for nutrients such as ammonia, nitrates, and nitrites. Bioaugmentation converts these nutrients to nitrogen gas which evaporates to the atmosphere. Therefore there are competing plants for these nutrients.

Results of one test conclude reductions in ammonia concentrations from .337 milligrams per liter, nitrate levels were reduced from .272 to .176 milligrams per liter and Kjeldahl nitrogen was reduced from 5.9 to 4.2 milligrams per liter. Other findings include significant decreases of chlorophyll (75%), phenophytin concentration (85%), and turbidity (70%). The above test is representative of only one body of water and is independent of any other pond.

It is important to realize this bacteria will continue to reproduce only when the following conditions exist:

1. A water medium containing food (organic waste).
2. Dissolved oxygen levels of at least 5 parts per million.
3. pH level between 6.5 and 8.
4. Water temperature of at least 60 degree Fahrenheit.

Bioaugmentation is one of several methods of controlling water quality.

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## BRIEFS



## GRAHAM, PANKS HIRE COLCERI

PHOENIX, Ariz. — Golf course architects David Graham and Gary Panks have hired Tom Colceri as director of business development. Colceri has worked in sales and marketing with Marriott Corp. and as a PGA golf professional.

## REES JONES RESTORING DAD'S CREATION

WILLIAMSBURG, Va. — Rees Jones is directing restoration of the Golden Horseshoe Gold Course here, a track designed by his father, Robert Trent Jones Sr., in 1963. The work will recreate and reconstruct Jones Sr.'s trademark runway teeing areas, subtle green undulations and strategic fairways. New substructures will be rebuilt for tees, greens and bunkers.



Rees Jones

## GCBA RELEASES DIRECTORY

The Golf Course Builders Association of America (GCBA) has released its updated Membership Directory and construction reference guide. The 128-page booklet contains contacts and detailed information on all member companies of the GCBA, as well as a description of its Builder Certification Program, and a 10-page golf course construction reference section that contains measurement conversions and a bibliography of other reference sources. Copies are \$15 each, and can be obtained by contacting GCBA headquarters, 920 Airport Road, Ste. 210, Chapel Hill, N.C. 27514; 919-942-8922; fax 919-942-6955.

## COLORADO TOWN APPROVES RESORT

BROOMFIELD, Colo. — The Broomfield City Council has approved Interlocken Ltd.'s plans to build a 302-room hotel and a 27-hole championship golf course along the Boulder Turnpike. The complex will also include convention facilities, a clubhouse for the golf course, a health club with indoor and outdoor swimming and two restaurants. The golf course was designed by Richard von Lührte of RNL Associates in Denver. The resort project will cover some 304 acres and is scheduled for completion in 1998.

## GRIFFITHS DESIGNS MUNI IN TENNESSEE

KINGSPORT, Tenn. — Construction on Kingsport's first municipal 18-hole golf course, designed by golf course architect Denis Griffiths, is set to start by the end of this month. The course will be called The Cattails at MeadowView and is expected to take 15 to 18 months to build. The golf course will adjoin the MeadowView Conference Resort and Convention Center.

GOLF COURSE NEWS

## Preserve golf course designs, Whitten urges

By MARK LESLIE

PINEHURST, N.C. — Calling himself their No. 1 fan, Ron Whitten urged golf course architects to become "a Self-Preservation Society," preserving their work or facing the possibility of losing any record of it.

Accepting the Donald Ross Award from the American Society of Golf Course Architects, the Golf Digest and Golf World golf course architecture editor said: "Ten, 15, 25, 50 years from now — unless you leave a record behind — there will be no record of your architecture." He said that while plans on paper are subject to interpretation and deterioration and while computer disks can become obsolete and unreadable, black-and-white photographs keep the best record.

Take photos, he said, not of "calendar shots" but "from every angle, every bunker, every tee."

Pointing to great changes that have been made over the years to Cypress Point and Augusta National, Whitten said architects need to give clubs clues to their designs, "especially when 50 years down the road some club decides to undo 50 years worth of green committee damage. Maybe you don't care what clubs do to your designs after you leave the premises. But if you do, leave them a clue. In black and white."



Ron Whitten shows one of his design "shows" describing modern golf course design work.

He also urged the architects to never lose sight of the real purpose of golf course architecture. "It's more than just an art, more than just a science," Whitten said. "It's part of the huge global entertainment business. Golf course architecture is show biz."

Continued on page 45



Ron Fream checks his blueprints at one of his golf courses.

## Q & A Fream's world unhindered by distance or cultures

Ron Fream was in the midst of a master's degree program in turfgrass management at Washington State University in the United States in 1966 when he was lured away from his studies to join the golf course design team at Robert Trent Jones Inc. He worked with Jones for four years, then spent three years as a construction supervisor for Robert F. Lawrence and as a design associate with Robert Muir Graves. In 1972 he and Terry Storm established their own firm — now known as Golfplan and headquartered in Santa Rosa, Calif. Celebrating his 30th year in the design field, Fream is still devoting most of his efforts to the Asia-Pacific region but is also eyeing his homeland.

**Golf Course News:** You hold a college degree in ornamental horticulture from California Polytechnic Institute and have a background in soil science, botanical science and ecology. From where does your expertise in design come?

**Ron Fream:** My "technical" education complemented the more pure design or golfing backgrounds of other designers on the Jones staff. In my four years with Jones Inc. I believe I earned a PhD in golf course architecture. Those years were expansive and truly educational.

Later, when Terry and I formed our company, we collaborated with Peter

Continued on page 46

## Palmer & 8 title winners to design track

ORLANDO, Fla. — Arnold Palmer and eight other major tournament winners each will design two holes of a golf course to be built in Manila, Philippines.

The project was announced during the Bay Hill Invitational here on March 16 when Palmer Course Design Co. (PCDC) signed a single-day record of five new agreements for golf course architectural services. The record-setting day capped

a record-setting month that saw nine new agreements.

PCDC officials said they reached an agreement with Pagbabago Development Corp., which was acting on behalf of a consortium of developers for the Manila project. PCDC is acting as overall project architect and designing two golf holes. The developers have opened negotiations

Continued on page 47

## BOOK REVIEW

## Ross' insights are plentiful, varied

By MARK LESLIE

His fans are legion, yet they never met — never even saw the man.

His golf courses — numbering more than any other architect has ever designed — exude exuberance and fond recollections from aficionados who have played them.

There is even a fan club in his memory: The Donald Ross Society.

Yet, what do we really know about Donald Ross? Until now, very little. He is the least-published among the great golf course architects. But with the publication of the lost commentaries of Donald Ross, the man and the designer is unveiled.

*Golf Has Never Failed Me*, compiled by Ron Whitten and published by Sleeping Bear Press for the American Society of Golf Course Architects, is due out May 25. Don't miss it!

This is an utterly fascinating book, loaded with many old photos never before made public — but, more importantly, seeping with insight into the all-time favorite golf course architect, a Brit who made America his home and transformed its land in the meantime.

Readers interested in Ross's ideas on golf course design and construction won't be disappointed (although they may find they were completely wrong about his ideas on earthmoving, blind shots, water hazards and other facets of design).

But my favorite parts of the book are Ross's thoughts on other aspects of the game and those involved in it. To wit:

• "Greenkeeping is destined to

Continued on page 48



Donald Ross



# Architects Society endorses principles as framework for development

By MARK LESLIE

PINEHURST, N.C. — The American Society of Golf Course Architects (ASGCA) has endorsed the Environmental Principles for Golf Courses, a project called "the most labor-intensive" in the group's 50-year history.

"Of all the responsibilities required of the president over the past term, the highlight for me is — without a doubt — completion of the Environmental Principles Report," said ASGCA outgoing President Jeff Brauer of Arlington, Texas.

"It is my desire that they have a positive impact in the golf industry in the future."

Meant to provide a framework for environmental responsibility in developing goals for golf course planning, design, construction and operations, the principles were developed by the ASGCA and 15 other golf and environmental groups. The document was first presented to the second conference on Golf & the Environment here in mid-March before being aired at the

ASGCA's late-March conclave.

Saying architects are "well ahead of the curve in terms of the measures we're taking," ASGCA Immediate Past President Don Knott told his colleagues at a panel discussion: "When you read the principles you'll find yourself saying, 'What's the big deal? We've been doing this for years.'"

Bill Love, who worked on the principles draft, said they "are meant to raise environmental awareness, but also carry the

message that golf courses present the opportunity for compatible land uses that can enhance the environment as a result of responsible design construction and maintenance."

They will become "a valuable tool," he said, "in the planning and design process by addressing issues early on and coming up with positive and innovative design solutions ... that will allow projects to go through the regulating and permitting process in the most efficient and

timely manner."

Another past president, Dr. Michael Hurdzan, saw the principles as "a great educational tool."

They "do not impact the development process at all," Hurdzan said. "[They] may even give us leverage with any clients who want us to bend the rules."

"We needed to establish a baseline so we can raise the bar in terms of course management," said Dr. Kimberly Erusha, U.S. Golf Association director of education. "Education is the key in being able to implement the next step."

"The society's work on the principles is perhaps the most labor-intensive project in its history," said ASGCA Executive Director Paul Fullmer. "Now we have to take the offensive and bring this environmental good news aggressively to the public."

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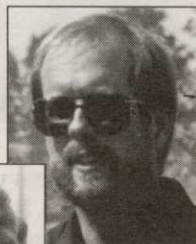
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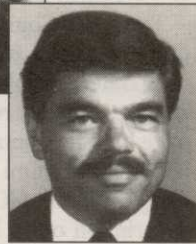
Denis Griffiths



Alice Dye



Bob Lohmann



## Griffiths takes reins of ASGCA

PINEHURST, N.C. — Denis Griffiths of Braselton, Ga., was elected president of the American Society of Golf Course Architects (ASGCA) at the society's 50th annual meeting here in late March.

Joining him are new Vice President Alice Dye of Delray Beach, Fla.; Secretary Bob Lohmann of Marengo, Ill.; and Treasurer John LaFoy of Greenville, S.C.

Immediate Past President Jeff Brauer of Arlington, Tex., is serving as ex-officio member of the ASGCA board of governors.

Damian Pascuzzo of Walnut Creek, Calif., was elected to the board, joining Doug Carrick of Don Mills, Ont.; Jay Morrish of Flower Mound, Tex.; Bob Cupp of Atlanta, Ga.; Mike Dasher of Winter Park, Fla.

Also, Bill Love of College Park, Md.; Tom Marzolf of Hendersonville; and Clyde Johnston of Hilton Head Island, S.C. Griffiths, Dye, Lohmann, LaFoy and Brauer also are members of the board.



## ASGCA admits six new associate members

PINEHURST, N.C. — The American Society of Golf Course Architects elected six new associate members at its 50th anniversary meeting here in late March.

Chris Cochran of North Palm Beach, Fla.; Perry Dye of Denver; Les Furber of Canmore, Alberta, Canada; Neil Haworth of Honolulu and Singapore; Ray Hearn of Lansing, Mich.; and David Whelchel of Columbus, Ohio, all were accepted into the society.

Dye, the son of ASGCA members Pete and Alice Dye and brother to P.B., also an ASGCA member, is president of Dye Designs. He has designed dozens of golf courses in Asia as well as Karsten Golf Course at Arizona State University in

Tempe, Red Mountain Ranch Country Club in Scottsdale and Glenmoor Country Club in Englewood, Colo.

Whelchel works with Hurdzan Golf Course Design, Inc., and has designed such courses as The Meadows at Grand Valley State University in Allendale, Mich., and The Oaks Golf Club in Flatwoods, Ky.

Employed by Nicklaus Design, Cochran has designed many courses in Asia, including Mission Hills Golf Club in Kanchanaburi, Thailand, and Mission Hills China in Guanlan, China.

Furber, who operates Golf Design Services, is credited with many course designs throughout the Pacific Northwest. Among them in British Columbia are Riverway

Golf Course in Burnaby and Meadow Gardens Golf Resort in Pitt Meadows.

A partner in Nelson-Haworth, Haworth has been active around the world, designing such tracks as Royal Hills Golf Course in Near Bangkok, Thailand and Kuala Lumpur Golf and Country Club's East and West courses in Malaysia.

The chief designer for Matthews & Associates, Hearn has produced such courses as Majestic at Lake Walden in Heartland, Mich., and Mistwood Golf Course in Lake Ann.

Associate members must have a minimum of five years experience designing golf courses, have produced five or more 18-hole courses and be 28 years of age.

## McCumber, three others full members

PINEHURST, N.C. — PGA Tour player Mark McCumber is one of four associate members who were elected regular members of the American Society of Golf Course Architects here.

Others joining McCumber are Jan Beljan of Jupiter, Fla., John Harbottle III of Tacoma, Wash., and Brian Huntley of Uniontown, Ohio.

McCumber, who owns Mark McCumber & Associates design firm in Jacksonville, Fla., is best known for his designs of Ravines Golf & Country Club in Middleburg, Fla., and Queen's Harbour Yacht & Country Club in Jacksonville.

## Whitten on design

Continued from page 43

Saying golf course architecture is about relaxation, he added: "You can relax with a good book, or a good movie, or even a good basketball game if it's totally absorbing, if it takes your mind off your worries, if it provides an escape. Golf's the same way.

"That's why we gush over golf courses that we can clearly recall, hole for hole, in our mind's eye, years after we've played them. They captured our complete attention. That's why the worst label we can ever slap on a golf course is that it's boring."

And while people normally watch a movie or read a book once, they play a golf course over and over again — four or five hours at a time, Whitten said. Playing on the angle of golf courses as show biz, Whitten brought down the house recounting various themes from box office hits:

- **Hard Target Architecture:** operates on the theory that the best way to grab a golfer's attention is by the throat. "In Hard Target Architecture the fairways are no wider than numchuks and the greens are the size of loin cloths," he said. "Bunkers aren't bunkers, they're bear traps. Water hazards aren't water hazards, they're black lagoons. When you're told the course record is 62 — lost balls, not strokes — it's Hard Target Architecture."

- **Cliffhanger Architecture:** relies on shock value using nose-bleed tee boxes, chasm carries and greens edged by surging surf... [It] likes to teeter us just on the edge of disaster before pulling us back. It tests both our agility and our acrophobia."

- **Copycat Architecture:** Whether it's an island green or a double green or a double-island green, if it makes a spread in *Golf Digest*, then people want it on the courses they play. [It] doesn't necessarily mean architects stealing from one another. Oftentimes, a single architect uses a pet hole at every golf course he produces."

- **Coneheads Architecture:** not simply a passing fancy of the 1980s, it has made a comeback. "The original Coneheads clustered around fairways and greens and sprouted thick mains of lovegrass. The new, improved Coneheads congregate everywhere, next to tees, in the roughs, even in the middle of bunkers. Most of them come from France and while they are amusing, it's still not apparent that golfers can stomach mass quantities of the things."

- **Splash Architecture:** the idea is to take "a guy's mind off his worries by emptying his golf bag."

- **Flintstones Architecture:** an exceedingly rare style that is in fact rapidly becoming extinct. [It] is where you propel yourself around the golf course using your own two feet."



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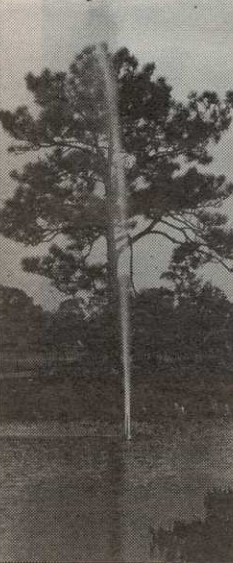
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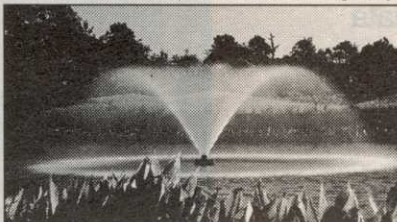
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CIRCLE #138



## Q&A: Fream

Continued from page 43

Thomson, five-time British Open champion, and his partner, Michael Wolveridge of Australia. Peter was one of the first pro golfers to recognize the opportunities golf design could provide to the accomplished and recognized player. This collaboration brought exposure and experience in many Asian countries, the Caribbean and Europe.

**GCN:** Was that the first and last of your work with "name" golfers?

**RF:** We have not worked with

any "name pro" on a regular basis since 1978. Without a "name" of our own, we do not receive wide recognition. However, we seem to achieve acceptable results under difficult conditions, for fees and construction budgets "name" architects would not accept. Many of our courses are quite well known in their own markets. Generally, our clients do not need extravagant marketing or promotion to attract ample players.

Given small budgets and/or difficult conditions, Golfplan performs well. We perform well otherwise, too. It is always easier to obtain spectacular results, regard-

less of where the site is, with unlimited or open-ended budgets.

**GCN:** In these last 30 years your work must have taken you into major challenges of all sorts.

**RF:** Pioneering new golf in what were non-golfing, and in some cases only recently industrialized countries, provided many challenges, many lessons, tremendous experience and (with hindsight) a fantastic vocabulary of experiences to draw from and relate to. Since 1972 I have been involved in various aspects of golf course architecture — from site evaluation to conceptual and land use, master

planning, golf and landscape design, earthworks and erosion-control engineering, desert and mangrove swamp reclamation, dredging from the sea, effluent water use... And I've worked in all sorts of areas: the Arctic, Sahara desert, rain forests, rock mountains, peat bogs, sand dunes, prairies, rice paddies, cobra country... I went to many locations before air conditioning, or malarial mosquito control. Golf may be 18 holes, but the experience is immense and difficult to fully describe when viewed over 30 years with the diversity of more than 50 coun-

tries and their climatic, social, religious, cultural, culinary, economic and philosophical factors.

**GCN:** Is more expected from golf course builders and architects today?

**RF:** Yes. Golf across Asia has become very much more sophisticated than during the 1970s and '80s. For instance, Golfplan will soon begin to prepare construction working drawings for upgrading and modernizing the Pantai Mentiri Golf Club in Bandar Seri Begawan, Brunei. When I first went to Brunei in 1980 to discuss designing this course with the Public Works Department, oil wealth had not transformed the sleepy tropical water village into the dynamic oil metropolis of today. The original draft of objectives from the PWD requested a modestly priced members club (government employees) on a waterlogged seaside site. Over the years, as Brunei prospered, so did the members. Now the objective is a "waterproof" course, even with 175 to more than 200 inches of rain annually and a water table six inches below original soil level.

**GCN:** We understand you are interested in working more in the United States. Is that true?

**RF:** I hope to spend a little more time working on domestic projects. It has been mentioned that Golfplan is not interested in U.S. sites. That surely is not the case. I would like to fly a little less, and a little less often. During 1995, I flew 140 times!

**GCN:** Do you have any U.S. projects on the boards?

**RF:** We have three under way in California; one in collaboration with Johnny Miller. We are also preparing design plans for the total rebuilding and repositioning of the Thunderbird Golf Club course at South Mountain in Phoenix.

**GCN:** I want to ask you about design — specifically the apparent drive, especially in Asia, to have tremendously long golf courses. Can and should that change?

**RF:** Resort golf courses do not automatically have to be championship 7,000-yard, 18-hole "monster tracks" on 180 to 210 acres of land. "Championship" is an over-used term. The course should be designed for user-friendliness and average golfer's play. Ego-driven courses that are too demanding may test the pros, but few pros ever pay for greens fees. Holiday golfers do not seek to be humiliated due to the severity of the golf course design. Depending on the scope of the resort, the land available, location and terrain, alternatives to the championship course are available. Compact "boutique" courses can be created on 25, 65, or 100 acres, or whatever size site is offered.

A proper 18-hole course, or even 36 holes, can be the correct long-term market-supported end product. A very fine course of 18 holes can be 6,500 or 6,800 yards

Continued on next page

GOLF COURSE NEWS

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## 9 winners, 2 holes apiece

Continued from page 43

with the eight other tournament winners.

Announcement of the other designers will be made when negotiations are finalized.

When it is complete, Ft. McKinley Golf & Country Club will become an amenity in the largest commercial and residential development in Metro Manila history. Construction is expected to start late this year, with tentative opening expected in early 1998.

Meanwhile, PCDC reached an agreement with J.T.H. Development Corp. for an upscale daily-fee 18-hole course in Palm Bay. The Palm Bay Golf Club will have a championship layout, clubhouse, golf shop, practice range, and separate 12-acre site for a state-of-the-art golf teaching center.

Construction is scheduled to start in May, with tentative opening expected next spring.

PCDC reached an agreement with Northeast Phoenix Residential Limited Partnership for an 18-hole track in Phoenix, Ariz. The course will be built at Desert Ridge, a master-planned community being developed in northeast Phoenix.

Construction is scheduled to start this summer, with the course opening expected early next year.

Indonesia-PCDC reached an agreement with Pt. Putra Alvita Pratama for an 18-hole course near Jakarta, Indonesia. It will serve as an amenity for an upscale, master-planned community — Kota Legenda (Legend City).

Kota Legenda will become the standard-bearer for golf and residential communities in the area,

PCDC said. Construction will begin this summer and opening is expected in early 1998.

PCDC also reached an agreement with Pierce Financial & Investments for an 18-hole facility in Hanford, Calif. Built on "a splendid tract of land," the course will be a cornerstone of an upscale, master-planned community — Sierra Madre.

Construction will begin this summer, and an early-1997 opening is projected.

## Architects Society going on-line by summer

By PETER BLAIS

PINEHURST, N.C. — The American Society of Golf Course Architects (ASGCA) plans to go on line with its own web site by early summer, the society announced during its recent annual meeting here.

ASGCA spokesman Chad Ritterbusch said that among the information likely to appear on computer screens will be:

- Background on the ASGCA.
- Biographies of ASGCA members.
- Information on how to develop a golf course.
- Procedures for selecting a qualified golf course architect.

• Environmental discussions, including case studies and information regarding environmental principles.

• Specific advice on developing municipal layouts.

• Links to other Allied Association of Golf members with web sites.

"This should be good news for architects and developers," Ritterbusch said. "The general public should find the information on golf's effect on the environment very interesting. We want to get some good solid information out there. Eventually, we might be able to do some fun stuff like a design-your-own-course contest on line."

## GOLF COURSE NEWS

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**September 1996 closing: August 16th.  
November 1996 closing: October 18th.**

## Q&A: Fream

Continued from previous page

long when total land area is somewhat limited. Par should be 70, 71 or 72 for the proper course. A site of 125 to 175 acres would be suitable for this 18-hole course. There is a place for true championship courses in the tourist resort context, when market conditions and land availability permit. Keep in mind, however, that the majority of your golfers are at best "average" players.

GCN: Once the golf course is complete, how important is course maintenance?

RF: Turfgrass maintenance is vital. A poorly maintained course will discourage repeat play and present a very unfavorable public-relations problem. Golfers are sophisticated. They have freedom of choice. They do not travel to mediocre or poorly maintained courses. Growing numbers of national and regional golf resorts offer options and alternatives. A successful golf destination resort must provide distinctive, challenging, memorable, golfer-pleasing and user-friendly golf. The quality of the turfgrass is the most visible feature the golfer will notice.

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## Unveiling Ross

Continued from page 43

be a very important and lucrative profession, of really far greater importance to a golf club than the services of a club professional. We haven't realized this sufficiently here yet, but already some of the universities in the East have started special courses of greenkeeping and course maintenance."

• "There has been great progress in golf in recent years, as in every other phase of American life. That's only natural. Look at the time and study the professionals give to the playing of golf to-

day. The only evil that's creeping into the game, as I see it, is the tendency to bet on it. I don't mean a quarter Nassau bet between two friends. What I dislike are the big Calcutta pools. They don't belong in such a fine, clean game."

• "I've been asked my opinion of the latest generation of golfers. These young fellows are so completely wrapped up in getting a little golf ball into a little hole in fewer strokes than anyone else that their attitude and sense of intelligent balance to the more important things in life has not only been distorted, but is practically nonexistent."

• "These boys acquire the idea

that golf, or tennis ... is terribly, terribly important. They read about themselves in the sports pages and they become complacent and eager for more and greater laurels. What is happening is that you cannot carry on an intelligent conversation with most of these big-name youngsters."

• "One thing that struck me as extremely queer on my latest trip to Britain was that the average standard of play on the other side seemed vastly inferior to the average standard on this. British golfers seemed to take less pains and to care much less whether they win than in America."

• "Golf is the one gentleman's

game. For this reason, you can never draft rules to control the game completely. Every golfer is on his honor. As long as we keep golf a game of honor, we are on the right road."

• And yet, "There is no good reason why the label 'a rich man's game' should be hung on golf. The game had its origin with the shepherd, who used his crook and a ball to while away the time... In my own native country, the shop workers and mill workers throng the links, for which their annual dues amount to about 50 cents and their total annual expenditures to not more than \$5."

• "The new standard golf ball

has eliminated from the top-notch ranks the mechanical golfer of the past, and the skilled shotmaker will now reap his deserved reward. The game was becoming too stereotyped with the old ball. The former ball did not place enough of a premium on a well-hit shot. The sluggers were getting such distances off the tee that they had nothing but easy pitches for second shots."

Superintendents will enjoy *Golf Has Never Failed Me* for a variety of reasons. Having a background in greenkeeping, Ross shows a wide knowledge of soils, watering and fertilizing, green care, bunker construction.

Recalling his youth, he wrote: "I also became the greenkeeper, although we didn't dignify the task by any such title. What I really did was to go out in overalls and get down on my hands and knees and care for the turf and the bunkers and the greens. And how I used to hate it. But, as it turned out, that was the best training I could have had for what turned out to be my future."

For decades, golfers and course designers have tried to get inside the brain of Donald Ross and, in doing, have defined his philosophies. But listen to these two little hints of his ideas on blasting, earthmoving, blind shots and water hazards:

• "During construction, the use of dynamite will be found necessary... It is astonishing what an amount of material can be moved in this way at a very low cost. It can also be employed in blasting out bunkers in heavy clay or hard subsoil. It is particularly helpful in assisting drainage, as it opens up crevices."

• "In these days of steam shovels and modern improvements, it is possible to do wonderful things on flat, level country. I have come to the conclusion that I prefer to lay out a course on level land."

• "On undulating land, blind shots are bound to occur, and one or two of them are not at all serious. Truth be told, I rather like them, as they add a bit of spice to the game."

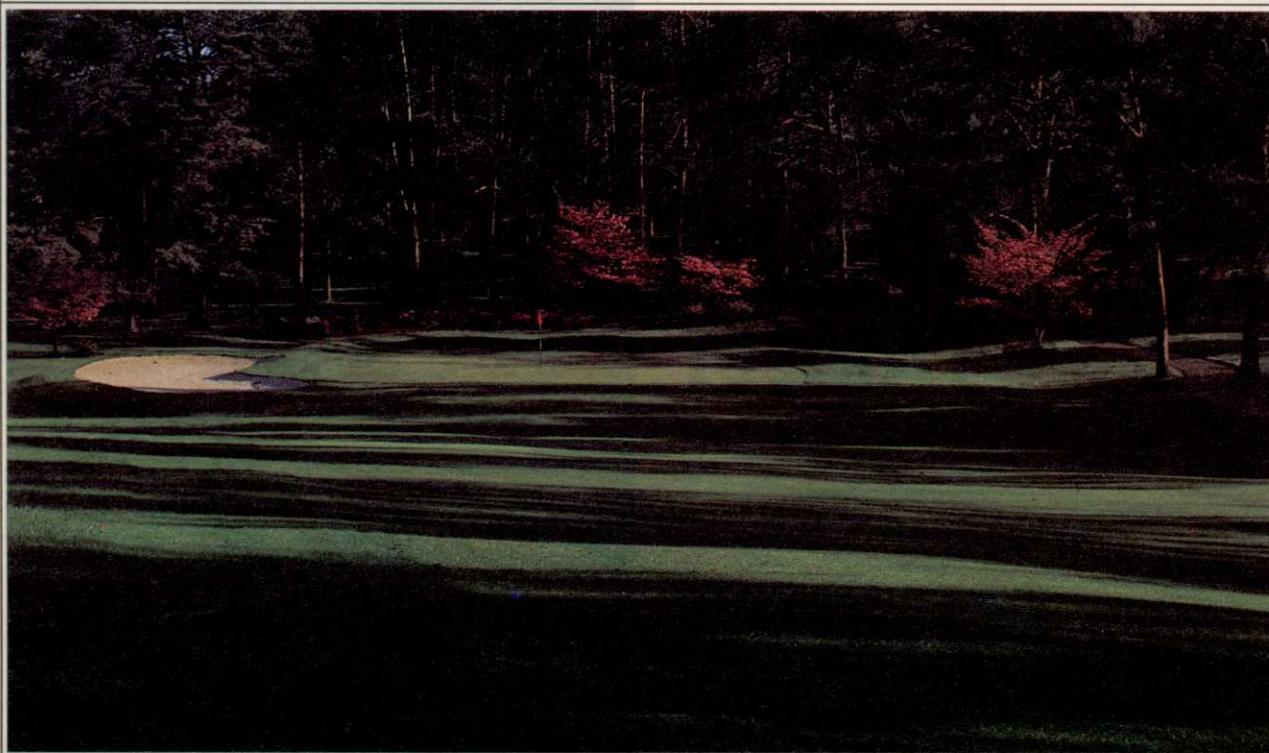
• "Water hazards always lend welcome variety and test of skill to a course. They are pleasant breaks that can generally be made into charming beauty spots. But don't allow your enthusiasm for them to run away with your good judgment. Limit the number of water hazards to three. Two might be better."

Why Ross's opposition to more water hazards? Was it design? Not quite. "The repeated loss of balls to those whom the hazard is difficult is apt to create dissatisfaction," he wrote.

Readers will enjoy getting to know this man as much as they enjoy playing his golf courses.

*Golf Has Never Failed Me: The Lost Commentaries of Legendary Golf Course Architect Donald J. Ross*, 288 pages, \$29.95, published by Sleeping Bear Press, P.O. Box 20, Chelsea, Mich. 48118; phone 313-475-4411.

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CIRCLE #141





## Phillips comment

Continued from page 10

nation's bureaucracy and total unfamiliarity with the game. Many believe these factors peg China as the ultimate short-term investment.

Whether mainland China will emerge as a viable, sustainable golf market was the topic of much discussion in Singapore, mostly because Stephen Allen — a former Golf Asia organizer who left to start his own trade show in Hong Kong — is moving his second-year exhibition to Shanghai. In a Golf Course News exclusive, Mr. Allen explains his motivation for the move, in addition to his views on the Chinese golf market. See page 59.

...

Congratulations to GCN Managing Editor Mark Leslie who earned second prize in the Golf Course Superintendents Association of America Writing Contest (see story page 32).

The winning entry was Mark's front-page story on last year's harrowing weather patterns ("Courses, supers withered by drought," October 1995). First prize went to Dave Anderson of the *New York Times*.

As he has been with GCN since the publication's inception eight years ago, it's hard to think of anyone who has written about maintenance issues longer or more eloquently than Mark Leslie. His recognition is richly deserved.

...

Everyone wants government out of their lives, right? And everyone, Republican and Democrat, seems to support smaller federal government these days, right? And with the proposed abolition of the National Turfgrass Evaluation Program (NTEP), golf industry types have the opportunity to follow through on the rhetoric, right?

Right...?

Tough call. The fertilizer has hit the fan in Beltsville, Md., where Kevin Morris directs the NTEP's important work. Important to us, that is. Unfortunately, NTEP is a victim of proposed budget cuts.

Read Kevin's letter to the editor on page 10 for details.

In the 1990s, when citizens speak publicly of "special interests" lobbying to preserve funding for their particular niches in the federal budget, their voices carry a palpable measure of scorn. But what happens when we're the "special interest"?

I guess we'll find out soon enough.

### CORRECTION

Because of an editing error, there was a mistake in the March *Golf Course News* story on Buffalo Shoals Golf Club in Statesville, N.C. [page 51]. The architect for this project is Gene Bates of West Palm Beach, Fla.

GOLF COURSE NEWS



Photo by Rolling Greens Photography

### MILL CREEK NEARS GRAND OPENING

Christening of the first 18 holes at Mill Creek in Geneva, Ill., is scheduled this summer. The Chicago-area layout will eventually include 27 regulation-length holes, a nine-hole par-3 track, and a golf learning center. Roy Case designed the golf facility for developer Kent Shodeen. The course will help store the 250 million gallons of storm water Mill Creek could generate.

### REES JONES LANDS NANTUCKET PROJECT

NANTUCKET, Mass. — Construction has begun on Nantucket Golf Club, a Rees Jones-designed club whose memberships is by invitation. The facility sits on the former 250-acre Coffin Farm here. It will feature a 6,900-yard, par-72 course and a 20,000-square-foot shingle-style clubhouse, four cottages for use by members, an employee dormitory and two historic farmhouses that will be renovated. Wadsworth Golf Construction Co. is building the course. The project coordinator is Golf Services, Inc.

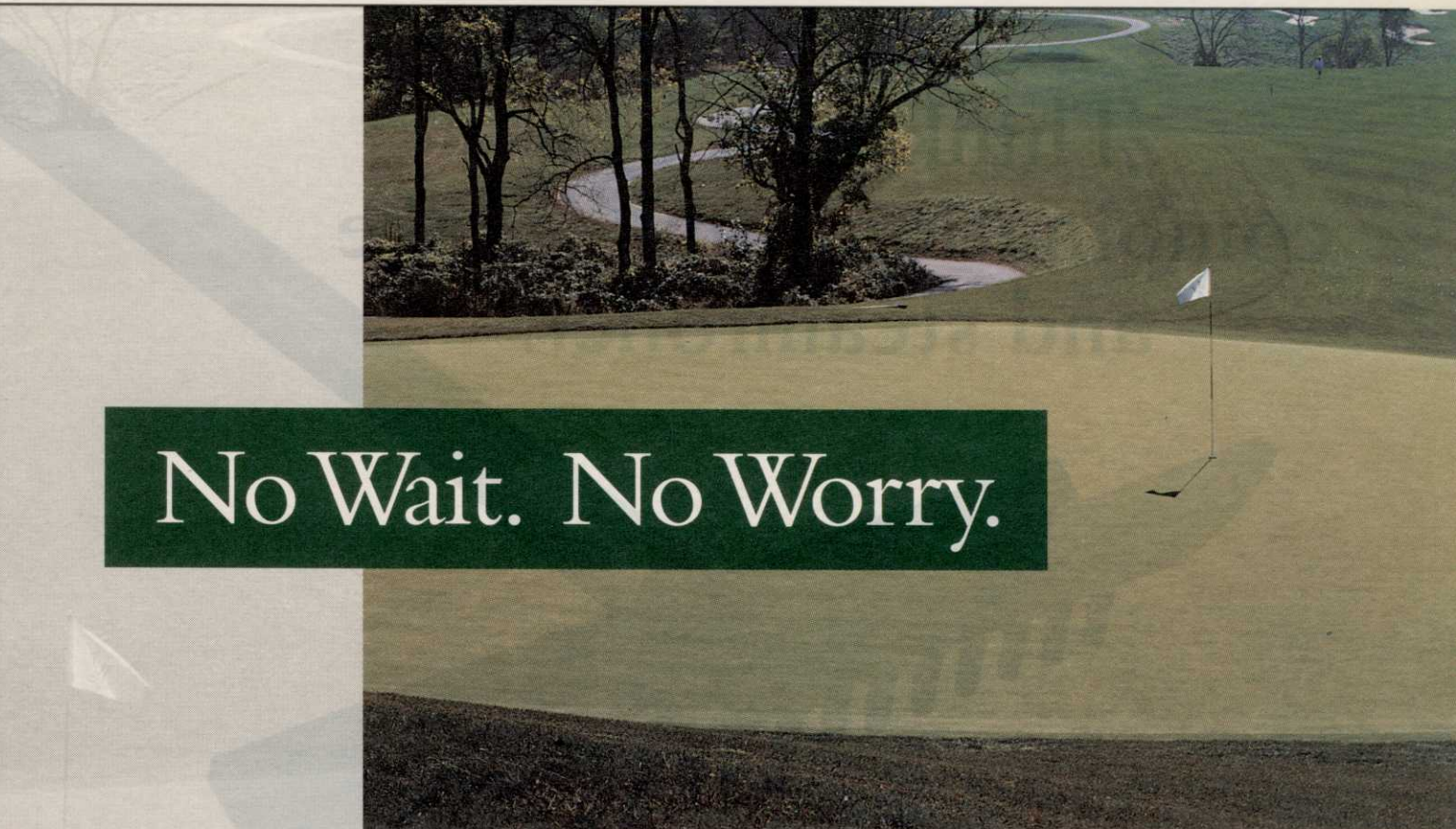
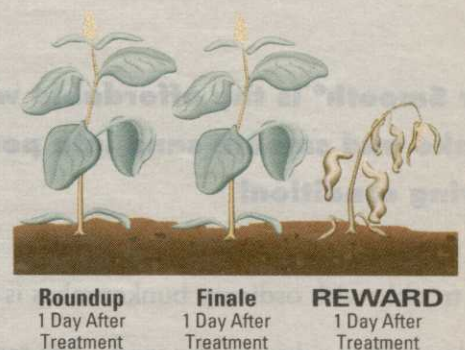


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# Development projections are bright from NGF survey

Continued from page 3

The numbers show that, for the past five years, roughly one-third of those courses built have been additions to existing facilities. In 1995, there were 159 such projects and they accounted for 34 percent of the total construction activity. The remaining projects (309) involved brand-new facilities.

"Expansions are typically easier to finance," he said, "because lenders have a track record on which to make the financing decision. Furthermore, loans are

often repaid from cash flow that is relatively less encumbered than is true for new development.

"On new developments, while lenders still typically require in excess of 40 percent equity, we're seeing a greater variety of equity sources beyond traditional limited partnerships...including a trend toward equity participation on the part of lenders."

Norton also points to the continuing availability of financing as another factor that's been driving the development surge.

"All types of financing vehicles have contributed to this growth — everything from your traditional local bank loans and municipal bond issues to the more specialized packages being offered by golf capital companies. We're also seeing greater participation by institutional and pension-fund managers."

Norton and his analysts estimate that the 468 projects completed in 1995 represent a total investment of roughly \$1.3 billion. They put the total value of

those 820 courses still in the pipeline today at \$3 billion.

...

Much of the construction activity over the past five years has centered in the nation's East North Central and South Atlantic regions. Each year, they've easily outdistanced the other seven regions in projects completed and together they've accounted for nearly half [47 percent] of what's come on line since 1991.

In 1995, the East North Central region — which includes Michi-

gan, Indiana, Ohio, Wisconsin and Illinois — led the nation in openings for the fourth straight year with 119. The South Atlantic region was second, also for the fourth consecutive year, with 93.

As Norton points out, there are a number of conditions favoring golf course development in the East North Central region. For example, he said, this region has historically boasted one of the highest participation rates in the country at 16 percent. The national average is just over 11 percent.

This region, he adds, not only has a good supply of relatively inexpensive land, but it also benefits from "a more favorable development topography and an easier permitting process."

A different set of factors, says Norton, is driving development in the South Atlantic region. High on the list are population and tourism growth. This region is being led by: North Carolina, South Carolina, Georgia and Florida.

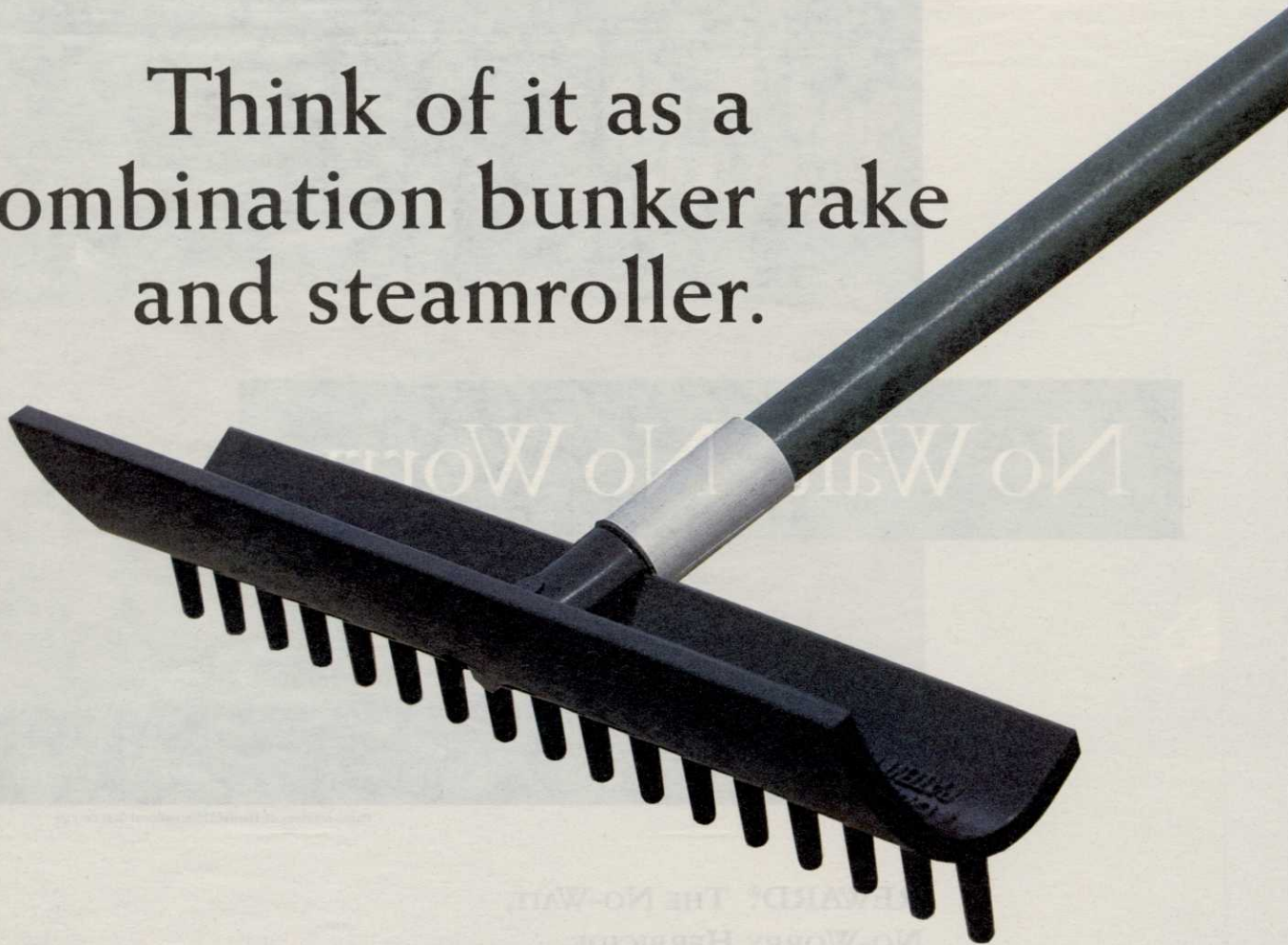
Among the other findings presented in the 1996 edition of Golf Facilities in the U.S.:

- **Public vs. Private:** As has been the pattern for the past 10 years, the vast majority [86 percent] of those courses coming on line in 1995 were public.

- **The Real Estate Factor:** In the 1980s nearly 50 percent of all golf course construction was associated with a real estate development. Today, real estate development is driving only about 30 percent of all golf course construction activity.

- **Overall Gain:** While 1995 was the most active in U.S. history in terms of golf construction project completions, those courses coming on line increased the total national supply by only 3 percent. The nation's total golf supply now stands at 15,390 courses.

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## Iowa Park eyes public facility

IOWA PARK, Texas — Flatt Golf Service, Inc. (FGS) of Overland Park, Kan., has completed a feasibility study here to determine the opportunity for developing a modestly priced public golf course in this rapidly growing community adjacent to Wichita Falls. FGS was also charged with the task of performing an analysis on three potential sites in the community and providing a recommendation to the city.

The study found a void in the public golf market in north Texas and suggested the city could develop a successful, moderately priced public. The report said success of a project would depend on acquisition of the recommended property or property with similar characteristics and location, and a commitment by the city to participate in financing the capital costs.

The report further recommended that private golf management partners be sought to assist the city in the development and management of the facility.

GOLF COURSE NEWS





Coyote Hills Golf Club in Fullerton, Calif., presented tough circumstances for course designer Cal Olson.

## DEVELOPMENT

# Olson-designed Coyote Hills Golf Club preserves nature, challenge

FULLERTON, Calif. — With owner Unocal making great efforts to protect the natural habitat of the gnat catcher and preserve oil wells that have stood since the turn of the century, the public Coyote Hills Golf Club opens here May 20.

Designed by Cal Olson and operated by American Golf Corp., Coyote Hills offers up playability as well as thrills, featuring elevation drops as much as 150 feet and 18 bridges crossing brooks and waterfall areas.

Extensive bunkers direct golfers through the layout, and pepper trees transplanted to the rear of greens provide targets.

The par-70 track measures 6,800 yards from the back tees.

The facility boasts 18,000- and 20,000-square-foot putting greens, and a two-tiered grass practice tee with the upper-level tee for synthetic mats.

Olson also added a 2,000-square-foot chipping green, and a separate area for hitting balls from lies of varying slopes.

## Real Golf takes design-planning show to Vietnam

HAIPHONG, Vietnam — Real Golf, the San Francisco-based golf course architects and environmental planners, have been selected to design a new 18-hole championship golf course here, the first track in Hai Phong, a major port city of nearly one million people.

The par-71, 6,700-yard layout with a large double-ended practice range, is located in the Red River delta some 60 miles east of Hanoi. The new Hai Phong course is being developed by the Hai Phong Development Partnership and will include 350 homes, an international school, and retail areas.

"With new economic zones emerging in Vietnam there has begun to be a demand for upper-scale housing with amenities such as golf," said Real Golf principal Daniel Buck, who added the project will be a technical and environmental challenge. "We need to protect water resources and the traditional agriculture of the area. The site is virtually at sea level with high ground water which is brackish, so we have to create drainage where there is none."

Real Golf has specialized in getting projects through difficult permitting processes and working with environmentally complex sites.

"I haven't won the U.S. Open or Masters recently, so our opportunities come from our creative and technical skills and our understanding of project economics," said Bucko.

### MAPLES DESIGNING VIRGINIA TRACK

SOUTH RIDING, Va. — South Riding, a 2,000-acre golf course community, has begun construction of a 7,000-yard, par-72 course designed by Dan Maples. The project is being developed by GolfSouth of Greenville, S.C., which will also operate and manage the club. The course will be open to the public, while South Riding residents will be offered special memberships.

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# Planned courses throughout U.S.

| Location              | Course Name     | Type | Holes | Work | Contact           |
|-----------------------|-----------------|------|-------|------|-------------------|
| <b>Arizona</b>        |                 |      |       |      |                   |
| Mesa                  | Longbow GC      | D    | 18    | N    | Ken Kavanaugh     |
| Phoenix               | Desert Ridge    | P    | 18    | N    | Arnold Palmer     |
| <b>California</b>     |                 |      |       |      |                   |
| Hanford               | Sierra Madre    | P    | 18    | N    | Arnold Palmer     |
| Irvine                | Oak Creek GC    | D    | 18    | N    | Tom Fazio         |
| Monterey              | Bishop Ranch    | D    | 18    | N    | Robert Graves     |
| <b>Colorado</b>       |                 |      |       |      |                   |
| Silt                  | TBD             | D,P  | 36    | N    | Dennis Carruth    |
| <b>Connecticut</b>    |                 |      |       |      |                   |
| Middletown            | TBD             | D    | 18    | N    | Al Zikorus        |
| <b>Delaware</b>       |                 |      |       |      |                   |
| Middleton             | Frog Hollow     | TBD  | 18    | N    | Paul Robino       |
| <b>Florida</b>        |                 |      |       |      |                   |
| Bradenton             | TBD             | TBD  | 18    | N    | Bill Robinson     |
| Palm Bay              | Palm Bay GC     | D    | 18    | N    | Arnold Palmer     |
| <b>Georgia</b>        |                 |      |       |      |                   |
| Marietta              | TBD             | D    | 18    | N    | Mike Young        |
| <b>Hawaii</b>         |                 |      |       |      |                   |
| Honolulu              | TBD             | D    | 18    | N    | Keith Kurahashi   |
| <b>Illinois</b>       |                 |      |       |      |                   |
| Edinburgh             | Timbergate GC   | TBD  | 18    | N    | Clyde Johnston    |
| Lakewood              | Lakewood GC     | D    | 18    | R    | David Esler       |
| <b>Indiana</b>        |                 |      |       |      |                   |
| Fort Wayne            | TBD             | D    | 9     | N    | Patrick Bruggeman |
| <b>Iowa</b>           |                 |      |       |      |                   |
| Waterloo              | Pheasant Ridge  | M    | 18    | N    | Beth Galles       |
| <b>Kansas</b>         |                 |      |       |      |                   |
| Topeka                | Lake Shawnee GC | M    | 18    | R    | Craig Schreiner   |
| <b>Kentucky</b>       |                 |      |       |      |                   |
| Covington             | TBD             | D    | 18    | N    | Alan Arman        |
| <b>Louisiana</b>      |                 |      |       |      |                   |
| Covington             | TBD             | D    | 18    | N    | Kevin Tucker      |
| <b>Maine</b>          |                 |      |       |      |                   |
| Belgrade Lakes        | TBD             | D    | 18    | N    | Kyle Evans        |
| Litchfield            | The Meadows     | D    | 18    | N    | Brad Booth        |
| <b>Maryland</b>       |                 |      |       |      |                   |
| Cambridge             | TBD             | D    | 18    | N    | Dale Moulton      |
| <b>Massachusetts</b>  |                 |      |       |      |                   |
| Burlington            | TBD             | D    | 18    | N    | Geoffrey Cornish  |
| <b>Michigan</b>       |                 |      |       |      |                   |
| Petoskey              | Hidden River    | TBD  | 18    | N    | Bruce Matthews    |
| <b>Minnesota</b>      |                 |      |       |      |                   |
| Faribault             | Legacy Links    | TBD  | 18    | N    | Garrett Gill      |
| <b>Mississippi</b>    |                 |      |       |      |                   |
| Hattiesburg           | TBD             | D    | 18    | N    | Richard Fulkerson |
| <b>Montana</b>        |                 |      |       |      |                   |
| Havre                 | TBD             | D    | 18    | N    | Keith Hellstrom   |
| <b>Nebraska</b>       |                 |      |       |      |                   |
| Omaha                 | Northridge CC   | TBD  | 18    | N    | Grant Wencil      |
| <b>Nevada</b>         |                 |      |       |      |                   |
| Las Vegas             | TBD             | D    | 18    | N    | Bill Walters      |
| <b>New Hampshire</b>  |                 |      |       |      |                   |
| Dover                 | TBD             | M    | 9     | N    | Ron Prichard      |
| <b>New Jersey</b>     |                 |      |       |      |                   |
| Egg Harbor Twp.       | TBD             | M    | 18    | N    | James McCullogh   |
| <b>New York</b>       |                 |      |       |      |                   |
| Carmel                | TBD             | D    | 27    | N    | Larry Nelson      |
| <b>North Carolina</b> |                 |      |       |      |                   |
| Edenton               | TBD             | D    | 18    | N    | Tom Fazio         |
| <b>Ohio</b>           |                 |      |       |      |                   |
| Batavia               | Elks Run GC     | D    | 18    | N    | Greg Norman       |
| Bowling Green         | Reserve GC      | D    | 18    | N    | Art Hills         |
| <b>Oregon</b>         |                 |      |       |      |                   |
| Bend                  | TBD             | D    | 18    | N    | Peter Jacobsen    |
| <b>Pennsylvania</b>   |                 |      |       |      |                   |
| Bedford               | Bedford Springs | D    | 18    | R    | Rees Jones        |
| Glen Mills            | TBD             | D    | 18    | N    | Bobby Weed        |
| <b>Rhode Island</b>   |                 |      |       |      |                   |
| Hopkinton             | Bushy Brook     | D    | 18    | N    | Michael Weremay   |
| <b>South Carolina</b> |                 |      |       |      |                   |
| Hilton Head           | Indian Hill GC  | D    | 18    | N    | Richard Covelli   |
| <b>Tennessee</b>      |                 |      |       |      |                   |
| Kingsport             | Cattails GC     | D    | 18    | N    | Denis Griffiths   |
| <b>Texas</b>          |                 |      |       |      |                   |
| Denton                | The Colony      | D    | 18    | N    | Tripp Davis       |

## Another Nicklaus enters design field

CARDEN PARK, England — Steve Nicklaus has signed an agreement to co-design an 18-hole golf course with his father, Jack Nicklaus, according to officials at Nicklaus Design. The site here features an existing 18-hole golf course, which the father-son team will renovate, and boasts room for a new 18-hole course which the Nicklauses will design together.

For Steve, who is general manager of Golden Bear Sports Management and a vice president of Golden Bear International, the project marks his debut in golf course design. "I've been watching with great interest the work my dad and brother Jack have been doing all these years," said Steve. "I'm anxious to take what I've learned from them and put it to work."

The site, in northwestern England, is a 720-acre parcel amid rolling countryside. British developer St. Davids Hotel, Ltd., recently acquired the prop-

erty, which features a working inn called Carden Park Hotel Golf and Health Resort. The company plans to upgrade the facility into a world-class resort, complete with championship golf, premium hotel accommodations and private cottages. "With the beautiful setting we have here and now the most accomplished family in the golf course design business creating our new golf course, there's no reason why we can't have the premier golf destination in northern England," said Peter Lavin, managing director of St. Davids.

Ground was broken on the course in April and plans call for grassing to begin in the fall.

"It's fun and quite gratifying to see the boys get involved," said Jack Nicklaus, who has designed more than 120 golf courses around the world. "It's nice to have your son come in and get involved in what you're doing."

## Courses recently approved in the U.S.A.

| Location              | Course Name           | Type | Holes | Work | Contact          |
|-----------------------|-----------------------|------|-------|------|------------------|
| <b>Alabama</b>        |                       |      |       |      |                  |
| Cullman               | White Pines GC        | D    | 18    | N    | Ricky White      |
| Northport             | Old Cove GC           | D    | 18    | N    | Mike Young       |
| <b>California</b>     |                       |      |       |      |                  |
| Irvine                | Oak Creek GC          | D    | 18    | N    | Tom Fazio        |
| <b>Colorado</b>       |                       |      |       |      |                  |
| Denver                | Castle Pines North GC | D    | 18    | N    | Tom Weiskopf     |
| <b>Florida</b>        |                       |      |       |      |                  |
| Miami                 | Doral Resort          | D    | 18    | R    | Ted McAnlis      |
| Naples                | Bay Colony GC         | P    | 9     | A    | Robert von Hagge |
| Ocala                 | Ocala Palms           | D    | 9     | N    | Steve Newgent    |
| Orlando               | Celebration GC        | D    | 18    | N    | R.T. Jones II    |
| <b>Georgia</b>        |                       |      |       |      |                  |
| Kingsland             | Laurel Island         | M    | 18    | N    | Davis Love III   |
| Lincolnton            | Rocky Branches GC     | D    | 18    | N    | Bill Ashmore     |
| <b>Indiana</b>        |                       |      |       |      |                  |
| West Lafayette        | Purdue University     | D    | 36    | R    | Pete Dye         |
| <b>Iowa</b>           |                       |      |       |      |                  |
| Andrew                | TBD                   | D    | 18    | N    | Jay Morrish      |
| <b>Kansas</b>         |                       |      |       |      |                  |
| Atchison              | Bellevue CC           | P    | 9     | A    | Marty Johnson    |
| Wichita               | Flint Hills Nat'l GC  | P    | 18    | N    | Tom Fazio        |
| <b>Kentucky</b>       |                       |      |       |      |                  |
| Lexington             | The Peninsula         | D    | 18    | N    | Pete Dye         |
| <b>Louisiana</b>      |                       |      |       |      |                  |
| Hammond               | Ironwood GC           | D    | 9     | N    | Art Zieske       |
| <b>Maine</b>          |                       |      |       |      |                  |
| York                  | The Ledges            | D    | 18    | N    | Bradley Booth    |
| <b>Maryland</b>       |                       |      |       |      |                  |
| Baltimore             | Greystone GC          | D    | 18    | N    | Lindsay Ervin    |
| <b>Michigan</b>       |                       |      |       |      |                  |
| Bath Twp.             | David Kesler          | D    | 18    | N    | Daryl Kesler     |
| Carp Lake             | TBD                   | D    | 9     | N    | Dick Carter      |
| Rochester Hills       | Twin Lakes GC         | D    | 18    | N    | Jerry Matthews   |
| <b>Mississippi</b>    |                       |      |       |      |                  |
| Jackson               | Caroline GC           | D    | 18    | N    | Max Maxwell      |
| <b>Nevada</b>         |                       |      |       |      |                  |
| Henderson             | Seven Hills           | D    | 18    | N    | Rees Jones       |
| Las Vegas             | Desert Pines GC       | D    | 18    | N    | Perry Dye        |
| Mesquite              | Players Island Club   | D    | 18    | N    | Cal Olson        |
| <b>New Jersey</b>     |                       |      |       |      |                  |
| Princeton Twp.        | TBD                   | P    | 18    | N    | Gary Player      |
| <b>Pennsylvania</b>   |                       |      |       |      |                  |
| Lancaster             | Pilgrim Oaks GC       | D    | 18    | N    | Michael Hurdzan  |
| <b>Rhode Island</b>   |                       |      |       |      |                  |
| Lincoln               | Lincoln CC            | P    | 9     | R    | Bradley Booth    |
| <b>South Carolina</b> |                       |      |       |      |                  |
| Charleston            | Kiawah Island Resort  | D    | 18    | N    | Gary Player      |
| <b>Tennessee</b>      |                       |      |       |      |                  |
| Chattanooga           | Harrison Bay St Pk    | D    | 18    | N    | Jack Nicklaus    |
| Chickasaw             | Chickasaw St Pk GC    | D    | 18    | N    | Jack Nicklaus    |
| Oak Ridge             | Oak Ridge Muni        | M    | 18    | N    | Gary Baird       |
| <b>Texas</b>          |                       |      |       |      |                  |
| Eules                 | Texas Star GC         | M    | 18    | N    | Keith Foster     |
| Weslaco               | TBD                   | D    | 18    | N    | Jeff Brauer      |
| Weslaco               | Tierra Santa GC       | D    | 18    | N    | Jeff Brauer      |
| <b>Utah</b>           |                       |      |       |      |                  |
| Draper                | TBD                   | D    | 18    | N    | Gary Panks       |
| <b>Vermont</b>        |                       |      |       |      |                  |
| Sherburne             | Green Mtn Nat'l GC    | M    | 18    | N    | Gene Bates       |
| <b>Virginia</b>       |                       |      |       |      |                  |
| Prince Wm Cnty        | Forest Greens GC      | D    | 18    | N    | Clyde Johnston   |
| <b>Washington</b>     |                       |      |       |      |                  |
| Kent                  | Washington Nat'l GC   | P    | 18    | N    | Keith Foster     |

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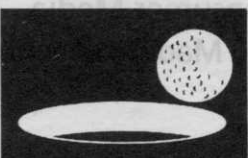
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## BRIEFS



## CORCORAN TO MANAGE WIDOWS WALK

SCITUATE, Mass. — The town has selected Corcoran Jennison Hospital-ity (CJH) to manage Widow's Walk Golf Course, an 18-hole, daily-fee facility designed by Michael Hurdzan and scheduled to open by July 1997. CJH also manages Ocean Edge Resort and Golf Club on Cape Cod and Glen Ellen Country Club in Millis.



Heather Siegel



James Bailey

## NGCOA APPOINTS PAIR

MT PLEASANT, S.C. — The National Golf Course Owners Association has named James Bailey director of membership and sponsorship and Heather Siegel communications director. Bailey was formerly vice president of marketing for CNA Insurance Companies in Chicago. In his new position he will focus on member recruitment and retention, chapter development and member benefits. Siegel has been with the association for a year. She will create and edit industry-specific publications, focus on media relations and serve as associate editor of the association's monthly publication, *Golf Business*.

## KSL FAIRWAYS ADDS TO PORTFOLIO

KSL Fairways has acquired two new courses, Tantallon Country Club in Ft. Washington, Md., and Willow Run Golf Club in Pewaukee, Wis. Tantallon is KSL Fairway's fifth course in the Washington area. Willow Run is located just 15 minutes from downtown Milwaukee.

## CASPER NAMES NEW DIRECTORS

VIENNA, Va. — Billy Casper Golf Management has named new directors of golf at two of its facilities. Bill May — formerly of Tee and Tee Golf and in Portland, Maine and Bath (Maine) Country Club — is now at Kennebec Heights Country Club in Augusta, Maine. Thomas Beidleman — formerly of Cattail Creek Country Club in Glenwood Md. — has joined the soon-to-open Links at Caledon in Mount Airy, Md.

## ARIZ FIRMS TEAM UP IN DENVER

DENVER — Troon Golf Management and Suncrown Development have joined forces to build Castle Pines North Golf Club in south suburban Denver. The same team developed and operated Troon North Golf Club in Scottsdale, Ariz. Tom Weiskopf will design the facility.

## Maryland family battles elements, government to keep course going

By PETER BLAIS

The Shields family has been in the Maryland golf business for 55 years. Family members have seen their courses wither in the heat, drown under heavy rains, become overgrown when fathers and brothers were away at war and unable to care for them.

Despite the worst Mother Nature and foreign dictators could throw at them, the Shields always brought their courses back into play. But John Shields isn't sure whether his family and other private course operators can overcome their newest adversary, the government.

Short on funds and long on hope that golf is the answer to their financial woes, local and state governments have become major golf course developers. With free land, no taxes, and the ability to subsidize operations that fall below projections, government-owned facilities start with a tremendous advantage over private course operators like the Shields, owners of Glenn Dale (Md.) Golf Club and Twin Shields Golf Course in nearby Dunkirk.

"It's welfare golf and it makes it very hard on the private sector," Shields said. "With all the munis coming on line, we [United States] could end up with more courses than we need and private, daily-fee operators could get squeezed out. The only choice our family may eventually have is to turn our land into house lots."

That prospect unnerves Shields, whose father, Ray, and uncle, Roy, moved from Ohio to Maryland in the mid-1930s. The twin brothers worked at East Potomac

Park for the Loeffler family, operators of East Potomac and other courses, including Annapolis Country Club.

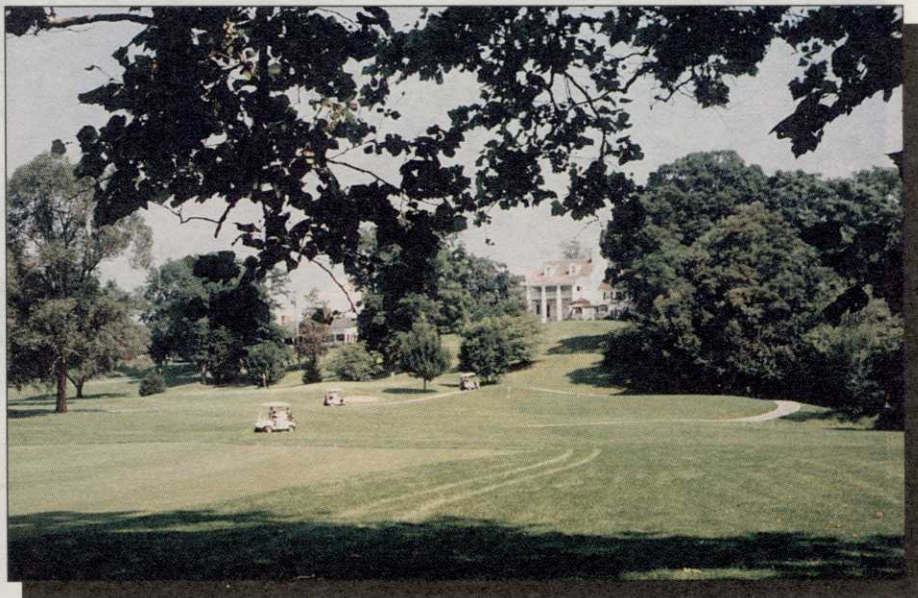
Ray and Roy bought the Annapolis club in 1941, but were shortly thereafter called into the service in World War II. With no one available to maintain Annapolis Roads, weeds and small saplings took over. When the hostilities ended, the two returned and began the work of reclaiming the neglected facility. Older brother Bob (who later became head superintendent at nearby Woodmont Country Club in Rockville) helped restore the course.

The Shields sold Annapolis CC in 1958, but not before a brief, four-year fling operating White Flint Golf Club from 1950-54 and acquiring the property to build Glenn Dale Golf Club in 1957. Ray and Roy later designed and built Twin Shields Golf Club in Dunkirk, which opened in 1969.

Ray died in 1980 and John, a graduate of the University of Maryland's associate turfgrass program, returned home to help his mother, Hinky Shields, manage Glenn Dale. Ray's surviving brother, Roy, took over full-time operation of Twin Shields, leaving Glenn Dale to John and his family. John, brother Jeff and sister Pam Jasper bought Glenn Dale from their mother in 1984. (Roy, 80, his daughter Karen and head pro of 20 years John Dodson operate Twin Shields.)

Glenn Dale underwent some major changes beginning in 1984. The family redesigned the course and reconstructed all the tees. They planted 1,000 additional

Continued on page 58



The Shields family has operated Glenn Dale (Md.) Country Club for almost 40 years.

## California writers ass'n honors American Golf Corp.'s Price

PEBBLE BEACH, Ca. — American Golf Corp. Chairman of the Board and Chief Executive Officer David Price has been awarded the California Golf Writers Association's (CGWA) Golden State Award, recognizing the golf operations entrepreneur's contributions to the game of golf in the state of California. The award presentation was made by *San Francisco Chronicle* sports writer Pat Sullivan during the CGWA's Annual Awards Banquet HERE.

Price joins an impressive list of past Golden State Award winners that includes Bing Crosby, Dinah Shore and golf course



David Price

developer Sandy Tatum.

"I am thrilled to be honored by the California Golf Writers Association and to join such a renowned list of past recipients," said Price upon accepting the award. "It is especially gratifying to be recognized in my home state, where American Golf has worked hard to provide golfers with unsurpassed service, value and a high-quality golf experience... In addition to expanding the opportunities for Californians of all levels and backgrounds to learn and play the great game of golf."

Price's outstanding service and contributions to the game began nearly 30 years



## MARKETING IDEA OF THE MONTH

## Marketing on the 'Net' wave of golf's future

By DEBORAH SANDERS

As a course owner or general manager, you market your course locally and perhaps in national periodicals. But how about marketing in the newest forum, the Internet?

The World Wide Web with its nicely formatted text and its pictures, and often its sound and video clips — and almost always its hypertext links that allow the user to go from the Web site to an E-mail address or to another Web site — are highly attractive features that draw users. That last feature — the immediate transportation to your E-mail address — is probably the most important aspect of marketing on the Web. If you're piggybacking on the Web site of another golfing entity, it enables potential customers to reach you directly and immediately.

You may want to build your own Web page, for an investment. You may want to find your own designer, or you may want to use DesignSite (tm) LLC, which has put together sites for a recording studio, an industrial equipment company, and many law firms.

Continued on page 56

Deborah Michelle Sanders, Esq., is a small-business lawyer in San Francisco. She can be reached via E-mail at DMS94122@aol.com.



## Brassie takes steps to improve profitability

TAMPA, Fla. — Brassie Golf Corp. has announced several developments with respect to its operations and partnerships, all designed to enhance the management company's profitability.

They include a proposed debt restructuring and increase of ownership by Brassie's partners in its four Gauntlet golf courses, significant overhead reductions, a capital raise and possible changes and additions to the board of directors.

- Brassie is continuing nego-

tiations with its Pension Fund partners (the "Pension Funds") whereby the Pension Funds would assume primary financial responsibility for The Gauntlet courses. Through this proposed reorganization, Brassie would significantly reduce all short- and long-term obligations associated with the ownership of The Gauntlet courses. Furthermore, as currently proposed, Brassie would continue to manage The Gauntlet courses on a fee basis. As part of this proposed restructur-

ing, the Pension Funds would increase their ownership interest in The Gauntlet courses. Additional details of the proposed deal were not disclosed.

- In another measure to attain profitability, Brassie implemented initiatives to reduce operating overhead. The firm expects to reduce operating expenses through the further integration of the former Club Operations Property Management (COPM) into Brassie Golf Corp. Among the cost reduction

steps taken are the elimination of redundant tasks and the installation of tighter controls. Also, Brassie expects to realize further cost cuts resulting from the reorganization of its partnership interests in the four Gauntlet courses.

- Brassie recently completed the private placement of \$5,500,000 of its 6 percent convertible debentures due March 1, 1998 (the "Debentures"). Commencing 180 days after the issuance date, and continuing through the first anniversary thereof, Brassie may cause any

Debentures not previously converted by the holders thereof to be converted into shares of its common stock. The terms of the Debentures provide for conversion at a discount to the then-current market price of Brassie's common stock.

The net proceeds of the sale of the Debentures will be used to repay a portion of Brassie's short-term debt and for general working capital purposes.

- With completion of this financing, Brassie expects to name one or more outside directors to its board.



## Golf Enterprises notes revenue, income upswing

DALLAS — Golf Enterprises, a leading golf course management company that is in the process of merging with giant American Golf Corp., recently reported an improved financial picture for 1995.

For the year ended December 31, 1995, operating revenue increased 64.7 percent to \$80.2 million from \$48.7 million a year earlier. Operating income jumped 53.5 percent to \$8.6 million from \$5.6 million in 1994.

Net income per common share was \$0.51 in 1995 compared to income per common share before extraordinary item of \$0.33 in 1994.

The company also added seven courses to its management portfolio in 1995. The new additions included the purchases of Eldorado Country Club in McKinney, Texas, and Willow Fork Country Club in Katy, Texas; the lease of Killearn Country Club and Inn in Tallahassee, Fla., and two golf course properties located at the Lely Resort and Country Club in Naples, Fla.; and contracts to manage Indian Creek Golf Course in Carrollton, Texas, and Corvallis (Ore.) Country Club.

Three months ago, GEI entered a definitive agreement to sell its 20 owned golf course properties to National Golf Properties Inc. for approximately \$58 million and to merge with a newly formed corporation affiliated with American Golf Corp. The deal had not been finalized as of late April, according to a GEI spokeswoman.

Dallas-based GEI owns, leases or contracts to manage 43 courses in 17 states.



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A very high standard.

They've come to expect exceptional turf safety. Low use rates. Easy handling. And above all, dependable performance.

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Eagle provides lasting protection against 14 major

turf diseases. From summer patch and leaf spot to brown patch and dollar spot. So you can always count on great control.

For even broader-spectrum performance, you can combine Eagle with contact fungicides such as Fore®.

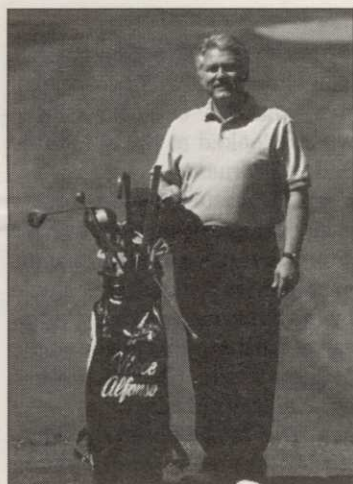
And unlike some other fungicides, Eagle offers

outstanding turf safety. You won't see weakened roots, leaf damage, yellowing or coarse turf blades. So greens always look and play their best.

### A great fit

Eagle provides a new tool for your resistance management program. A systemic with both curative and protectant activity,





Vince Alfonso

## Former NGCOA president forms own consulting company

By MARK LESLIE

WILLIAMSVILLE, Ill. — Vince Alfonso Jr., who led The Rail Golf Course into national prominence and spearheaded major growth of the National Golf Course Owners Association (NGCOA) while serving as its president, has formed his own company.

While Alfonso will continue his popular educational and motivational speaking and golf instruction, Alfonso Creative Golf Enterprises will focus on consulting

for golf course managers.

"We will implement as well as consult," Alfonso said of his consulting program GHOST, which stands for Golf Help On Site Today. "We want to carry a project through to the end. We will go to a golf course and stay a few days, a few weeks, whatever is needed to work on merchandising, television, radio, etc."

Alfonso is also available on retainer, he said.

He has been in golf for more than 30 years, the last 13 as head

professional and general manager of The Rail, which hosts the LPGA State Farm Rail Classic each year. A Class A member of the Professional Golfers Association, the 49-year-old served the NGCOA as president from 1993-95 and this year received its Don Rossi Award, given annually for long-time service to the organization.

But in late winter, he sold his interest in The Rail to majority owner Leonard Sapp when Sapp decided to sell the course. That

led to creation of Alfonso Creative Golf Enterprises.

Alfonso's management ideas — using the media, increasing trade in the pro shop, tee slots to the time sheet — are legend and he has spoken extensively about them around the country. This he intends to continue, partly through Jim Melton's speakers bureau in Palm Springs, Calif.

Additionally, Alfonso is continuing his teaching, leading clinics at various indoor and outdoor facilities and using his manual "Is It Mind over Matter or What?"

"The teaching manual and seminar is entertaining and informative and explains the game and attitude," he said.

Alfonso has written two management books, including a new one about running golf outings called "How To Turn a Clean Latrine into a Money Machine."

"God gave me a tremendous opportunity here," he said. "A lot of people don't have a chance to hop on a wagon, take their wares and head out. We've [he and his wife Sally] made a conscientious decision not to operate a golf course seven days a week. This way, we can share a lot with a lot of people."

At The Rail, I grew a lot, used my authority to interact with the community in a lot of ways. Now I've moved on."

## Owners, Yamaha ink new agreement

MT. PLEASANT, S.C. — The National Golf Course Owners Association (NGCOA) has signed a new agreement with Yamaha USA Golf Car Group that will provide funding and programs to all NGCOA members through the year 2000.

"This announcement is a solid endorsement of the success of our Smart Buy Program, and the impact of our member golf course owners in the national golf marketplace," said Mike Tinkey, director of the NGCOA Smart Buy Program.

"Working closely with the Yamaha dealers and the national marketing group, the NGCOA has delivered sales of over 11,000 new golf cars, and 30 million in sales revenue in the first three years of our partnership with Yamaha."

According to Yamaha National Account Manager, Mike Muetzel, the NGCOA programs and relationships, coupled with the strong reception to Yamaha's new products, have been the catalyst for Yamaha's growth in the past three years.

"This program has been critical to our incremental growth in Southern and Western markets, especially with our new electric car, the Yamaha Ultima 48V with PaceSetter," said Muetzel.

## Over Your Course.

Eagle gives you another option to work into your rotation.

There's plenty for applicators to like about Eagle, as well. Extremely low use rates, for instance. Just six tenths of an ounce per 1,000 square feet gives you all the control you need. This translates into easier storage, transport and mixing.

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T-O-160

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CIRCLE #145



## AGC sets sights on 400 golf courses

SANTA MONICA, Ca. — American Golf Corp. (AGC) plans to add nearly 30 quality courses to its prestigious portfolio each year for the next four years — bringing the number of private, resort and daily fee courses it operates to more than 400.

In the past 18 months, AGC has undertaken management of 31 new properties, including 10 private country clubs and 21 daily fee and resort

courses. President David Price credits this growth, which has conveniently been accompanied by increased profitability, to an innovative corporate re-engineering initiative launched in 1995.

Eight functional areas were scrutinized as part of the initiative, resulting in a more streamlined, efficient structure that lends itself to increased focus on specific course/club operational issues.

## Internet markets

Continued from page 53

Managing Director Fred Willard can be reached at E-mail [fred@designsite.com](mailto:fred@designsite.com).

You may want to piggyback on an existing Web page. At last count, there were 2,973 Web sites devoted to golf or golf courses. Of these, I have selected nine potential collaborators, plus a bonus. If your course is owned by a larger company, your organization probably already has a Web page. If not, as an independent course, you probably wouldn't want your marketing

material on a page the competition has generated.

Here are some selected sites:

- S PlusNet's Golf Information Center (the URL or address is <http://www.splusnet.com/golf>) is actively looking for sponsors. It is owned by an employment agency, which can be reached by phone at (508) 799-9599 or by fax at (508) 798-2731.

- If you are in the market for a new course or to sell yours, you will be interested in Golf Courses & Hotels Across the Country for 1031 Exchange or Sale (<http://www.mauinet.net/%7Eqmartyn/>

[1031exchangesNNNinvestments.golf](http://1031exchangesNNNinvestments.golf)). You should know, however, that there was only one course listed when I looked at the site at the end of February.

- The Masters 96.com Review is an example of an event-specific site. Of course, this April championship event will have been held by the time you read this, but you can get in line for inclusion on the Masters 97 site. The URL is <http://www.masters96.com>.

- The GolfWeb Home Page Review has many journalists on staff and covers many stories like a newspaper. Look at <http://www.golfweb.com>.

- The Golf Network Review covers key events like the four majors and the Ryder Cup. See <http://www.golfnetwork.com>.

- iGolf—the Players' Exchange Review is the "People" magazine of the golf Web. You can find it at <http://www.igolf.com>.

- Golfers Delight Review features electronic golf equipment. This high-tech site might be just the place for you to advertise your course. Look at <http://www.webcomm.com/~dms/golf.html>.

- Courses in several major metropolitan regions are featured in Drive! Review. It's at <http://www.greengrass.com>.

- Getting Around the Planet Review is a general travelogue with golf courses featured. See <http://www.pathfinder.com/Travel>.

Finally, I promised you a bonus. There are scores of locality sites that feature the tourist attractions of various places in the country. Some feature golf courses only like Michigan Golfers Online Review (see <http://www.iquest.com/michigangolfer>). Some include all sorts of attractions like the Arizona Central—Travelers Information Review (at <http://www.azcentral.com>).

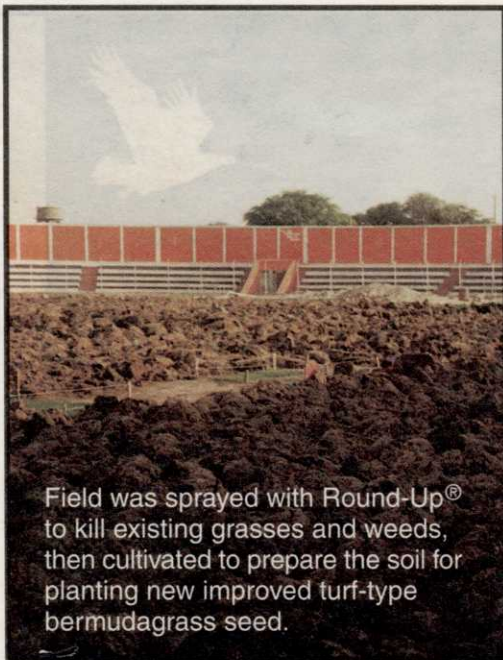
Whether you build your own Web page or piggyback, you need an E-mail address and yours should contain your own domain name for maximum exposure of your golf course's name. The domain name in an E-mail address such as [DMS94122@aol.com](mailto:DMS94122@aol.com) is the segment after the @ sign. Network Solutions of Herndon, Va., is responsible for registration services for domain names. Registration costs \$50 per year with the first two years payable in advance.

Only large companies register directly with Network Solutions, which requires the firm to have a pair of independent computer servers (at physically separate locations and on different networks if possible) of its own to service the domain.

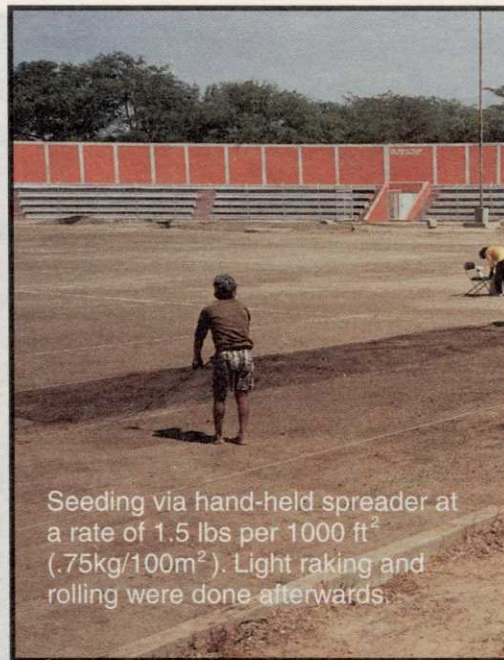
Smaller companies would register a domain name through AT&T, PSI, or any other Internet service provider, which searches the database and then on behalf of you submits your application to Network Solutions.



**BEFORE:** Stadium Miguel Grau, Piura City, Peru. Piura City has maximum summer temperatures of 86° to 100° F (30° to 38° C), with little to no precipitation.



Field was sprayed with Round-Up® to kill existing grasses and weeds, then cultivated to prepare the soil for planting new improved turf-type bermudagrass seed.



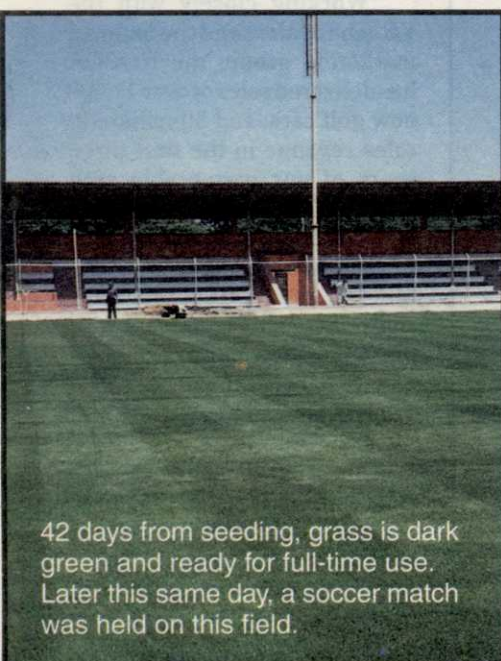
Seeding via hand-held spreader at a rate of 1.5 lbs per 1000 ft<sup>2</sup> (.75kg/100m<sup>2</sup>). Light raking and rolling were done afterwards.



7 days after seeding, over 90% of the seedlings have emerged. Some pre-existing weeds have also germinated. Chemical controls were applied.



32 days from seeding, after several mowings, grass is fully established and needs first routine application of fertilizer.



42 days from seeding, grass is dark green and ready for full-time use. Later this same day, a soccer match was held on this field.



2 days later, little damage is noted. The field was rolled as part of routine postgame maintenance.



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## Buena Vista adds new California track

CAMARILLO, Calif. — Buena Vista Golf Holdings (BVGH), a recently formed joint venture of Buena Vista Hospitality Group of Tampa, Fla., and Hanover Capital Holdings Corp. of New York, has acquired Spanish Hills Golf & Country Club here. Private Spanish Hills opened in 1993 featuring an 18-hole Robert Cupp course.

BVGH was formed in early April. The firm specializes in the acquisition, ownership and operation of golf properties. Buena Vista Hospitality Group is a real-estate and hospitality management company, while Hanover Capital is a real-estate investment and merchant banking firm.

Buena Vista also manages Buena Vista Palace Resort & Spa at Walt Disney World Village, Fla.; PGA National Resort & Spa in Palm Beach Gardens, Fla.; Lodge & Bath Club at Ponte Vedra Beach, Fla.; LPGA International in Daytona Beach, Fla.; Steele Canyon Golf & Country Club in San Diego; and WestWinds Golf & Country Club in Newmarket, Md.

## Prefab clubhouses

Continued from page 1

Valley opened for play in June 1992, according to Director of Golf Larry Wise. The developers leased three 14'-by-40' modular units from a Philadelphia firm (GE Capital) and arranged them in a U-shape. They placed the units on footers and cabled them down to make certain they stayed in place. They landscaped extensively inside and out and built pitched, wooden roofs over each.

On the inside of the U, they built a 40'-by-60' patio and covered it with a framed tent. The tented area contains an outside restaurant that seats 110, allowing it to accommodate almost any outing plus regular diners. The tent is lighted, music is piped in and intercoms keep golfers informed about what is happening on the course. At the entrance to the tent, the developers added a wooden structure and fan system housing a barbecue area where pig roasts and ribs are cooked. A bar next to the cookery handles drink orders.

"We've had an excellent response from our customers," Wise said. "The only down side is that we might have missed out on a few major corporate outings or entertaining some upscale clients. But we wanted to get the course accepted and operating. It's definitely helped us establish the course as one of the best in the area."

The green fees at Central Valley are

\$48.75 weekdays and \$56.50 weekends. "The fact that we have a supposedly temporary clubhouse hasn't affected rounds or green fees at all," Wise said.

In fact, there is really nothing temporary about the Central Valley facility, according to Wise. The club purchased the units for about \$250,000 shortly after they were installed and plans on using them as the main clubhouse for at least three more years. Once a stick-built clubhouse is erected — that Wise estimates will cost \$2 million — the prefab units will still host outings.

Another advantage of prefab clubhouses is that they give developers the opportunity to see what type of amenities their customers prefer before actually committing millions of dollars to a permanent clubhouse with facilities that could go unused, according to Robert Harper, director of golf at Wild Wing Plantation.

"A temporary clubhouse gives you a barometer of the type of guests you have so that you won't jump in and spend money on things they won't use, anyway," said Harper, who also worked out of temporary facilities at Tournament Player Club courses in Memphis, Tenn., and Miami.

Wild Wing leased two double wides for nine months when it first opened back in 1991, Harper said. The club dressed them up with landscaping and outside decking before erecting a permanent, 33,000-square-foot facility.

"Ours were color-coordinated and very

well done," Harper remembered of the units the club rented from Space Master of Charlotte, S.C. for approximately \$900 per month per unit. "By the time they were in the ground, you couldn't even tell they were temporaries. That's important because that first impression is often a lasting one. As soon as we were done with them they were on the road to another new club down in Florida."

Some companies are trying to take the word "temporary" out of the prefab clubhouse business altogether. Commercial Structures of Nappanee, Ind., custom designs, manufactures and installs modular clubhouses that can be leased or purchased, according to company Vice President Eric Johnson.

They are built to the same BOCA codes as stick-built structures and generally range in price from \$30 to \$45 per square foot, well below the cost of traditional clubhouses, Johnson said. They are designed so that more space can be added on at a later date.

"Developers usually go this route because they see it as a quick fix," Johnson explained. "But they are finding they can keep them as permanent structures once the landscaping is done. We can also do the drawings and construction in a matter of four to six weeks compared to several months for a regular clubhouse. We see the prefab clubhouse market as a niche we'd like to develop."

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is proud to announce it has closed the following transactions since its inception in late 1994.

**\$7,000,000 - NORTHGATE COUNTRY CLUB, Houston, TX**  
Refinance an 18-hole private course.

**\$3,400,000 - THE LINKS GROUP, Myrtle Beach, SC**  
Refinance leases on 144 holes of golf plus a credit line for future acquisitions.

**\$11,500,000 - THE LODGE OF FOUR SEASONS, Lake of the Ozarks, MO**  
Refinance a 311-room lodge, 211-slip marina and 45 holes of golf.

**\$5,000,000 - KEMPER SPORTS MANAGEMENT, Chicago, IL**

**\$2,250,000 - OLDE POINT GOLF & COUNTRY CLUB, Wilmington, NC**  
Refinance 18-hole course plus construction funding for clubhouse expansion.

**\$2,500,000 - GEORGETOWN COUNTRY CLUB, Georgetown, MA**  
Refinance a 9-hole public course plus construction funds for additional 9 holes.

**\$3,500,000 - THE SEA RANCH GOLF LINKS, Sea Ranch, CA**  
Refinance a 9-hole public course plus construction for a second nine holes.

**\$2,400,000 - WHITTIER GC & VICTORIA GC, Los Angeles, CA**  
Refinance two 18-hole public courses.

**\$5,000,000 - THE BEACH CLUB GOLF LINKS, Ocean City, MD**  
Refinance an 18-hole course and construction financing of new 18-hole course.

**\$3,600,000 - THE HERITAGE GOLF CLUB, Atlanta, GA**  
Construction of an 18-hole course and a line of credit for new acquisitions.

**\$5,200,000 - AVILA BEACH RESORT, San Luis Obispo, CA**  
Refinance an 18-hole resort golf course.

**\$4,750,000 - CRYSTAL SPRINGS GC, Sussex Co., NJ**  
Refinance an existing course to draw out equity to construct a new course.

**\$3,250,000 - BLACK BEAR GC, Sussex Co., NJ**

Construction of a new 18-hole course, cross-collateralized with Crystal Springs.

**\$3,800,000 - CHESTNUT HILL & DEERFIELD GC, Buffalo/Rochester, NY**  
Refinance 18-hole course and acquisition of 27-hole course.

**\$8,500,000 - ANGEL FIRE RESORT, near Taos, NM**

Acquisition of a ski mountain, golf course, hotel, RV park & other amenities.

**\$9,500,000 - GOLF CLUB of ILLINOIS & BURR HILL GC, Chicago, IL**  
Refinance GCI, acquire Burr Hill and provide a line for future acquisitions.

**\$7,000,000 - ELY BOWLING, Northern NJ**  
Refinance 4 bowling centers in northern NJ and southwestern NY.

**\$6,700,000 - BADLANDS GC, Las Vegas, NV**  
Take-out of course construction loan, plus provide for clubhouse construction.

**\$2,600,000 - CASSELBERRY GC, Orlando, FL**  
Construction loan for new daily fee course.

**\$3,600,000 - SOUTH RIDING GC, Washington, DC**  
Construction loan for new daily fee course.

**\$2,800,000 - GREEN ACRES LANES, Lake Worth, FL**  
Acquisition loan for 60 lane bowling center.

**\$2,500,000 - SHATTUCK GC, Jaffrey, NH**  
Acquisition loan for existing daily fee course.

**\$3,500,000 - RANCHO VISTOSO GC, Tucson, AZ**  
Permanent mortgage to take-out course construction loan.

Don Rhodes Bobby Fitzpatrick Debbie Suppa Barbara Welty  
Vice President Jerry Hinckley Rick Nekoroski Nancy Loucks

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## Shields family

Continued from page 53

trees, installed a new irrigation system, constructed four miles of macadam cart paths, upgraded the clubhouse and renovated the swimming area. The club has since sponsored a local U.S. Open Qualifier, two LPGA Northeastern Championships, and many other events.

The tremendous change in golfer's expectations was one of the major reasons for the upgrade, John said. Television coverage of professional events has led many people to expect Augusta-like conditions at their facilities.

"Twenty years ago we mowed the greens at one height and everything else at a second height," John said. "But with the new mowing equipment, chemicals

and fertilizers we have today, people expect a more finely-tuned product. That's made golf more expensive."

Glenn Dale's green fees are \$23 weekdays and \$27 weekends for unlimited play, fairly reasonable for suburban Washington, D.C. Twin Shields' rates are within a dollar or two of Glenn Dale's, John said. Shields describes Glenn Dale as a "gray collar" facility. "We're sort of a stepping stone for people who eventually end up at a private club," John said. "We'll even help them set up an appointment with the membership committee at any of the nearby private clubs."

That attention to customers is important at the Shields' operations. In fact, the families are re-emphasizing customer service in 1996. "Next to the golf courses, customer service is the most important

thing we have that can set us apart."

The Shields plan to stay in the business into the foreseeable future, but have no plans to acquire additional courses unless members of the next generation want to become involved in the business. All are involved in the club's operation. Hinky handles invoices and billing. Jeff operates the food and beverage operation. Alvin, Pam's husband, is being trained as the landscaper and her daughter, Michele, to take over the office operation. John, a two-term member of the National Golf Course Owners Association board of directors, is in charge of maintenance.

Many management companies have approached the Shields about leasing or buying their operation, John said.

"We've considered it," he added.

"Management companies can save money on many line-item areas that a Mom-and-Pop operation can't. They can centralize and spread costs around different facilities on items like legal, accounting and secretarial fees. They have mass purchasing power that gets them discounts on equipment and supplies we can't touch. They also save taxes by leasing facilities and writing off expenses on a yearly basis that I [as an owner] have to depreciate more slowly."

"They have become very efficient by developing manuals to run each course as a business. But they can have difficulty in making the manual fit each course. Every operation is a little different and you have to be flexible to meet those needs. Sometimes management companies have trouble doing that."

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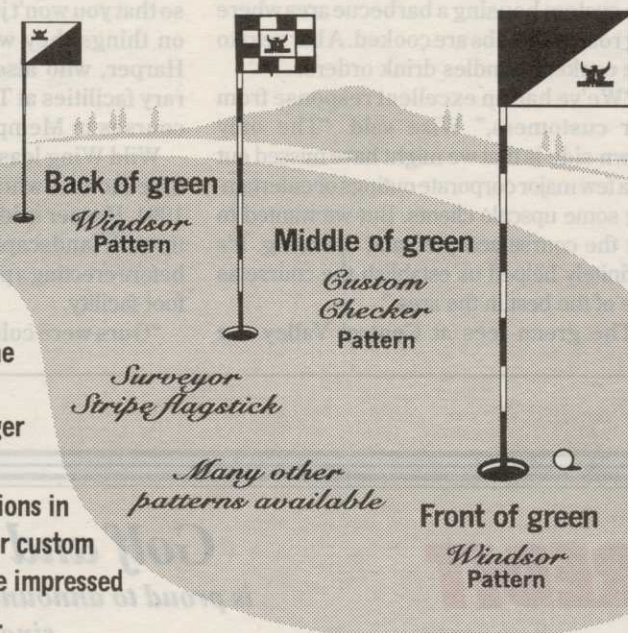
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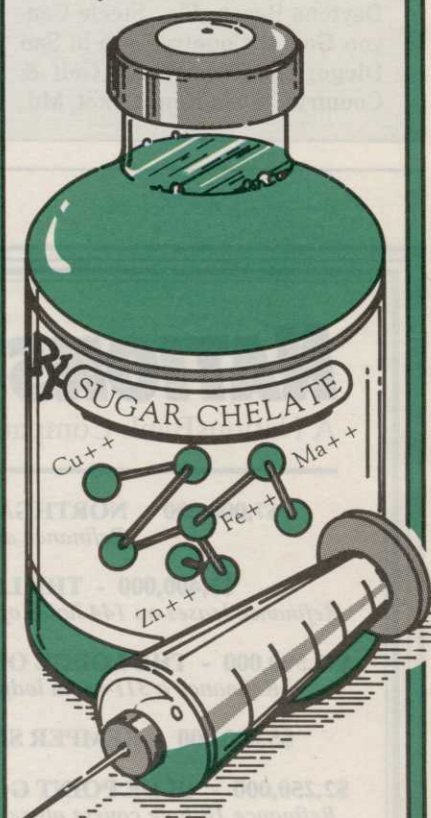
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CIRCLE #150



## BRIEFS



## JORDAN JOINS RANSOMES TURF

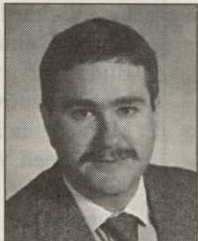
MINNEAPOLIS — Ransomes America Corp. named David Jordan market support manager for the company's Turf Division. As market support manager, Jordan will assist territory sales managers and distributors with product demonstrations and training throughout the states of Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee. A native of Birmingham, Ala., Jordan has nearly six years of experience in turf maintenance equipment sales.



David Jordan

## ZAJAC HIRES MERRIGAN

ALBANY, Ore. — Bill Merrigan has joined Zajac Performance Seeds in the newly created position of production coordinator. His responsibilities include contracting with turf seed growers to assure a dependable supply to support Zajac's expanding seed programs. In addition to inventory management, Merrigan will be responsible for the purchase and sale of common turf and forage grasses, an expanding area for the company. He joins Zajac Performance Seeds at the company's new facilities here.



Bill Merrigan

## VOGEL HONORED BY WISCONSIN GMA

Bill Vogel, President of Spring Valley Turf Products of Jackson, Wis. has won the annual Person of the Year Award from the Grounds Management Association of Wisconsin. Vogel has earned this distinguished honor as a result of his long-standing dedication and involvement with shaping legislation governing the landscape and turf industries.

## ASSOCIATES OPEN KC OFFICE

OVERLAND PARK, Kan. — Associates Corp. of North America has opened a new equipment finance office to serve the Kansas City area. Located in Overland Park at 10561 Barkley, Suite 250, the office will offer financing for heavy construction equipment. The branch manager is Rick Leegwater, who can be reached by telephone at 913-385-4222; or by fax at 913-385-4210.

## Budd Seed to buy Lofts

Officials: Expect few changes, including the Lofts name

WINSTON-SALEM, N.C. — Budd Seed, Inc., a wholesale grass seed and fertilizer distributor company based here, has reached an agreement in principle to purchase Lofts Seed, Inc., the world's largest marketer of turfgrass seed. A definitive agreement to purchase is expected on June 30.

New Jersey-based Lofts sells seed to golf courses, sod farms, retail stores, landscapers, lawn-care operators and municipalities. Lofts has been in the turfgrass industry since 1923. It has developed and owns patents on more than 25 seed varieties such as, Rebel II, Rebel III, Turf-Type Tall Fescue, Palmer Perennial Ryegrass and Georgetown Kentucky Bluegrass.

"We are very pleased with this agreement and look forward to welcome this outstanding group of talented professionals into our company family," said Richard Budd, chief executive officer of Budd Services and Budd Seed. "This is a major milestone in our company's history and for the seed industry. The formation of this new

Continued on page 60



## FLOWTRONEX PSI PUMPS OUT A MILESTONE

Crew members direct and watch the proceedings as the 5,000th pump station manufactured by Flowtronex PSI settles into its new home at Primm Creek Golf Course, 35 miles outside Las Vegas, Nev. (For stories, turn to page 63). Primm Creek was laid out by Tom Fazio Golf Course Designers, Inc. with irrigation consulting provided by Larry Rodgers Design Group, Inc., and irrigation contracting performed by Formost Construction, Inc.

## For Deere, it's a smaller world

BY KIM ACKER LIPP

MOLINE, Ill. — In today's high-tech world a computer network lies at the heart of most organizations. To most, it's a headache simply to monitor the information being pumped between the planning and the financial departments. So imagine the challenge of tracking information as it travels across North America, Europe, Australia, South America, and Africa. That's exactly what information technology experts must do at John Deere & Co.

The international manufacturer of turf and farm equipment has established JDNet, a private worldwide net-

## New computer network links internat'l divisions

work. At headquarters here, a main-frame system sends corporate information, such as product updates, to remote processing centers. In turn, the remote processing centers send local information, like sales orders, back to the mainframe.

"It's one corporation, but it's a decentralized company. They have a lot of local automation at the factories and branches," said John Higgins, a

Continued on page 62

## COMMENTARY

## Why Shanghai?

Show organizer explains the decision to leave Hong Kong

By STEPHEN ALLEN

With just one golf course per 23 million people, it's not difficult to see why China is being touted as potentially the biggest single golf market in the world.

It's a fact clearly not lost to us here at Golf World Exhibitions (GWE). We launched our very first Hong Kong and China Golf Exhibition and Conference last year. The pioneer event, held in Hong Kong, proved successful enough to have made exhibition site reservations for not only this year, but for subsequent years up to 1999.

Although we saw Hong Kong as a convenient hub for both the international industry and its potential partners in China, there were some restrictions on travel for visitors from China. This was something we had to respond to, on behalf of our exhibitors, who represented some of the biggest names in the golf business.

With this priority in mind we went to China, moving to the bustling and

Continued on page 64



## NEW PRODUCT OF THE MONTH

E-Z Rinse, new from Phil Worth Mfg., quickly rinses pesticide containers at a stationary load-out point or on the job site. Only 40 pounds of pump pressure are needed. Rinse solutions go directly into the spray tank and onto the target area. For more information, contact Phil-Worth Mfg. at 419-424-5793. For more new products, turn to page 65.



Stephen Allen is president of Perth, Australia-based Golf Media Group, organizer of the International Hong Kong & China Golf Exhibition and Conference.



## Kelley to head Turfline marketing

ST. CHARLES, Mo. — Rick Kelley, a veteran newspaper journalist, has been hired by Turfline, Inc. President John Humphrey to develop and implement a strategic marketing and sales campaign for the company's patented True-Surface Vibratory Greens Rolling System.

Prior to joining Turfline, Inc., Kelley was president of the R.K. Co., a marketing and consulting firm. A graduate of the University of Missouri-Columbia, he compiled 20 years in the news-

paper industry as news editor and publisher. Kelley also worked the 102nd session of the U.S. Congress as press secretary to a United States congressman.

While at Turfline, Inc., Kelley has spearheaded the company's major commitment to promoting the vibratory roller to golf courses worldwide. He has assisted in developing a major network of international distributors and conducts a direct sales campaign from the company's St. Charles, Mo., office.

## biosys acquires AgriDyne, adds to biological product line

COLUMBIA, Md. — AgriDyne Technologies Inc., of Salt Lake City, Utah, has become the latest acquisition of biosys, Inc., a biological pest control company here.

The AgriDyne acquisition brings azadirachtin chemistry to the biosys family of biological products that includes baculoviruses, beneficial nematodes, and a line of pheromone products. In addition, the AgriDyne team is utilizing recombinant

DNA technology to develop a synthetic pyrethrum insecticide that will have applications in turf, ornamental, and nursery crops.

Azadirachtin is the active ingredient in neem

oil, a plant-derived material. It is formulated and sold as OHP Azatin EC and OHP Azatin XL for control of a broad range of insect pests in greenhouses, outdoor nurseries, and interiorscapes.

University- and company-sponsored research has shown that Azatin is effective against dozens of insect species, including several species of cutworms, armyworms and other lepidoptera, plus leafminers, whiteflies, aphids, Colorado potato beetle, psyllids, black vine weevil, beetles, fungus gnats, thrips, and fruit flies.

OHP Azatin is distributed in the United States by Olympic Horticultural Products.



You've had to change  
the way you maintain  
your fairways to reflect  
new, higher standards  
of quality. We know  
your equipment needs to  
be up to the challenge.

**Ransomes®**  
**Fairway Mowers.**



Today's fairways demand a level of quality that was formerly reserved for greens. To meet these higher standards, superintendents have found a reliable, productive ally in the Ransomes® family of fairway mowers. The T-Plex 185 is perfect for highly visible tees and collars. The 250, 305 and 7-plex 405 are the industry's only "right" weight mowers. The 405 features a wide 156" cutting swath while the new 3500 is a production powerhouse. Ransomes mowers have been designed to maintain the same perfect finish from one side of the fairway to the other. When you start with Ransomes reel mowers, you finish with the best.

Call 1-800-228-4444 for a free demo or the name of the dealer nearest you.



**RANSOMES**  
**CUSHMAN**  
**RYAN**

For The Best Results

## Lofts purchase

Continued from page 59

company enhances the capabilities and services for our existing customers and opens new market opportunities, while maintaining the philosophies upon which both businesses were founded."

John Loft, president and chief executive officer of Lofts Seed, said the Lofts name, its product line and commitment to service will not be affected by the sale.

"We are pleased to become associated with Budd Seed," said Loft. "The philosophies and evolution of both companies have been based on similar fundamental values—exceptional customer service that is based on partnership, professionalism, integrity and complete dedication to every phase of the turf industry."

Ken Budd, president and chief operating officer of Budd Seed, will become president of Loft Seed Co. Richard Budd and Ferald Chrisco, chief financial officer of Budd Services, will become senior executives of the company. Mike Beauchamp, controller for Budd Seed, will become the manager of the Winston-Salem operations for Budd Seed Co.

Loft Seed boasts domestic branches and subsidiaries in Massachusetts, Pennsylvania, Maryland, Ohio, Oregon and Georgia. The 73-year old company has more than 100 employees. Budd Seed sells grass seed and fertilizer to businesses and municipalities in North and South Carolina, Tennessee, Kentucky, Virginia and West Virginia. Budd Seed purchases its grass seed in the United States from Oregon and Missouri, and around the world from Australia, New Zealand and France, for distribution to the Southeast region.

### PEMRICK JOINS LOFTS

SOMERSET, N.J. — Lofts Seed, Inc. has added Walt Pemrick to its Professional Turf Division. Pemrick will be working with Lofts distributors, sod farmers, professional turfgrass managers, and golf course architects throughout the country. Pemrick, formerly of Warren Turf, Inc., was one of the founders of the International Turfgrass Producers Foundation and has served as its president for the past four consecutive years.



## Barenbrug broadens its national reach

TANGENT, Ore. — Barenbrug has taken a majority share holding in TFI of Columbia, S.C. and Modern Forage Systems of Ferndale, Wash.

TFI was founded by Tom Ferriter who specializes in the marketing of turf seed while serving the golf course and professional markets in the Southeastern U.S.. Ferriter will remain general manager.

Ferriter recently hired Bob Zion to head the professional and retail division. The company will change its name to Barenbrug Southeast.

Modern Forage Systems is a forerunner in the proprietary forage grass market. General manager John Kaye, a grass farmer himself, has been successful in introducing New Zealand varieties for the temperate areas in North America and European ryegrass markets. Matua bromegrass and Barenbrug's BG3 and Tetraplus are among the products in high demand.

Barenbrug has restructured its operations under a separate North America group which comprises the following subsidiaries:

Barenbrug USA in Oregon with general manager Don Herb and Barenbrug Production with general manager Don Obrist; Garfield Williamson in New Jersey headed by Bill Lind; Modern Forage Systems; and Barenbrug Southwest.

The management team of Barenbrug North America consists of Frederick Bosch, president/chief executive officer; Don Herb, executive vice president; and Steve Mock, chief financial officer.

## Parkway named marketing agent for nematicide

HOUSTON, Texas — Parkway Research, headquartered here, has been named exclusive marketing agent, Neo-Trol, a naturally derived nematicide for the turf and ornamental industries.

This patented nematicidal product, developed through years of research and experimentation, is registered by the Environmental Protection Agency. Neo-Trol has proven especially useful for golf and sports turf applications where nematodes prevail as an extensive economic pest. Neo-Trol is available in most states.

For more information, contact Sharon Gravitt, product manager at 13802 Chrisman Road, Houston, Texas 77039, or call 713-442-9821.

GOLF COURSE NEWS

## Jacobsen names Pacesetter winners

ORLANDO, Fla. — Jacobsen Division of Textron presented 1995 Pacesetter Awards to six distributor sales representatives during the International Golf Course Conference and Show here.

The Pacesetter Award is given annually to Jacobsen distributor sales representatives in recognition of outstanding performance in sales and total customer service.

Recipients of the 1995

award included Bill Barrett of Sawtelle Brothers, Inc., Lawrence, Mass.; Brian VanderBaan of Valley Turf, Inc., Grandville, Mich.; Rod Durham of Illinois Lawn Equipment, Orland Park, Ill.; Dave Combe of Rocky Mountain Turf & Industrial Equipment, Salt Lake City, Utah; Bobby Johnston of Horizon Turf Inc., Phoenix, Ariz.; and David Bunting of Capital Ford New Holland, Inc., Bryant, Ariz.

## Jacklin marks 60th year in seed

POST FALLS — In 1996, Jacklin Seed Co. celebrates its 60th year in business.

Duane, Doyle and Don Jacklin are the third generation of the family-owned company, founded in 1935 by their grandfather, Ben, and his three sons. In the 1940s, the Jacklins began experimenting with grass seed production on the Rathdrum Prairie, north Idaho. Acreage has expanded since that initial field of Merion Kentucky bluegrass to where now the company contracts and produces seed on

more than 50,000 acres in Oregon, Washington, Idaho, Arizona and Georgia.

Today, Jacklin is one of the world's largest national and international grass seed research, production and marketing organizations serving customers throughout the world. The company boasts the largest private research and turfgrass breeding company in North America. The firm has production and conditioning facilities in Post Falls, Nezperce and Jerome, Idaho; Albany, Ore.; and Ritzville, Wash.

**New**

**ONE CRAB WE CONTROL. THE OTHER ONE'S UP TO YOU.**

In your business two types of crabs are a fact of life. New ACCLAIM® EXTRA Herbicide provides excellent control of the crabgrass escape type. Even more concentrated than the original Acclaim, ACCLAIM EXTRA is 14% stronger. So that lower rates give you the same dependable spot treatment control without damaging your existing turf. Plus, ACCLAIM EXTRA also lets you reseed fescue and ryegrass immediately after the spray dries.\* It can

also still be used on bluegrass, ryegrass, zoysiagrass, fine fescue, tall fescue — even bentgrass fairways and tees. And ACCLAIM EXTRA controls crabgrass escapes from the 1-leaf stage right up to just before seed head formation.

No preemergence herbicide is perfect, so make postemergence ACCLAIM EXTRA a part of your season-long crabgrass control program. As for that other type of crab... sorry, but you're on your own.

\*Wait 3 weeks for bluegrass, zoysiagrass, bentgrass.

**Acclaim® Extra**  
HERBICIDE

**AgrEvo**  
A company of Hoechst and NOR-AM

Read and follow label directions carefully. AgrEvo USA Company, Wilmington, DE 19808 © 1996



## Valent's Pinpoint okayed for mole crickets; Primo label expanded

WALNUT CREEK, Calif. — Superintendents in South Carolina have a new weapon against mole crickets following a label addition for Pinpoint 15 Granular insecticide. A 24(c) label was recently approved for the product. The label addition permits application on residential lawns, athletic fields, parks and commercial landscapes.

According to Joe Chamberlin, field market development specialist for Valent U.S.A. Corp., the granular formulation of Pinpoint makes it more user-friendly in

public areas, such as golf courses.

"While there are good liquid alternatives on the market, such as Orthene Turf, Tree and Ornamental, some areas are difficult to reach with spray equipment," Chamberlin said. "Pinpoint will allow superintendents to spot-treat these hard-to-reach areas."

Chamberlin said the product will also be useful under wet conditions when heavy spray equipment may damage turf. Research has demonstrated that a broadcast application of Pinpoint effectively controls both the nymphs



and adult mole crickets. "That means Pinpoint can be used year-round—an important consideration

for South Carolina golf course superintendents," he explained.

...

DES PLAINES, Ill. — **Barri-**cade preemergence herbicide from Sandoz Agro Inc., has been registered by the California Environmental Protection Agency (EPA). Barricade is designed to deliver preemergence performance in controlling crabgrass, goosegrass, poa annua and 27 other problem grasses and broadleaf weeds on fairways, tees and roughs. Using up to 75 percent less active ingredient than other

preemergence herbicides, Barricade offers up to 26 weeks residual control following a single application. Its flexibility allows for fall, spring, or split applications. Barricade is available in cases of six, 5-pound bags of water soluble packets or 24, one-pound boxes.

...

GREENSBORO, N.C. — Ciba Turf and Ornamental Products has announced the Environmental Protection Agency approval of a new, expanded label for **Primo** plant growth management tool. The expanded label now permits the use of Primo or carpetgrass, buffalograss, kuku-yugrass and Texas common St. Augustinegrass, along with other warm- and cool-season turfgrasses already on the label. The new label also provides instructions for Primo's use in Poa annua conversion and maintenance and overseeding.

## Deere network

Continued from page 59

senior data-base analyst at John Deere & Co. "What we find is that the data-base expertise varies widely from one factory to another, or even from one department to another."

The technology support experts at Deere headquarters often found themselves fielding emergency phone calls from local data-base analysts after a network process has failed. Higgins said the company has turned to a product called Patrol in an effort to better manage its computer systems throughout its worldwide locations.

Patrol, released by Houston-based BMC Software, is a network management application that automates and centralizes the control of critical elements. By using Patrol, staff members at headquarters can monitor computer systems in the field, and in some cases prevent network problems before they start.

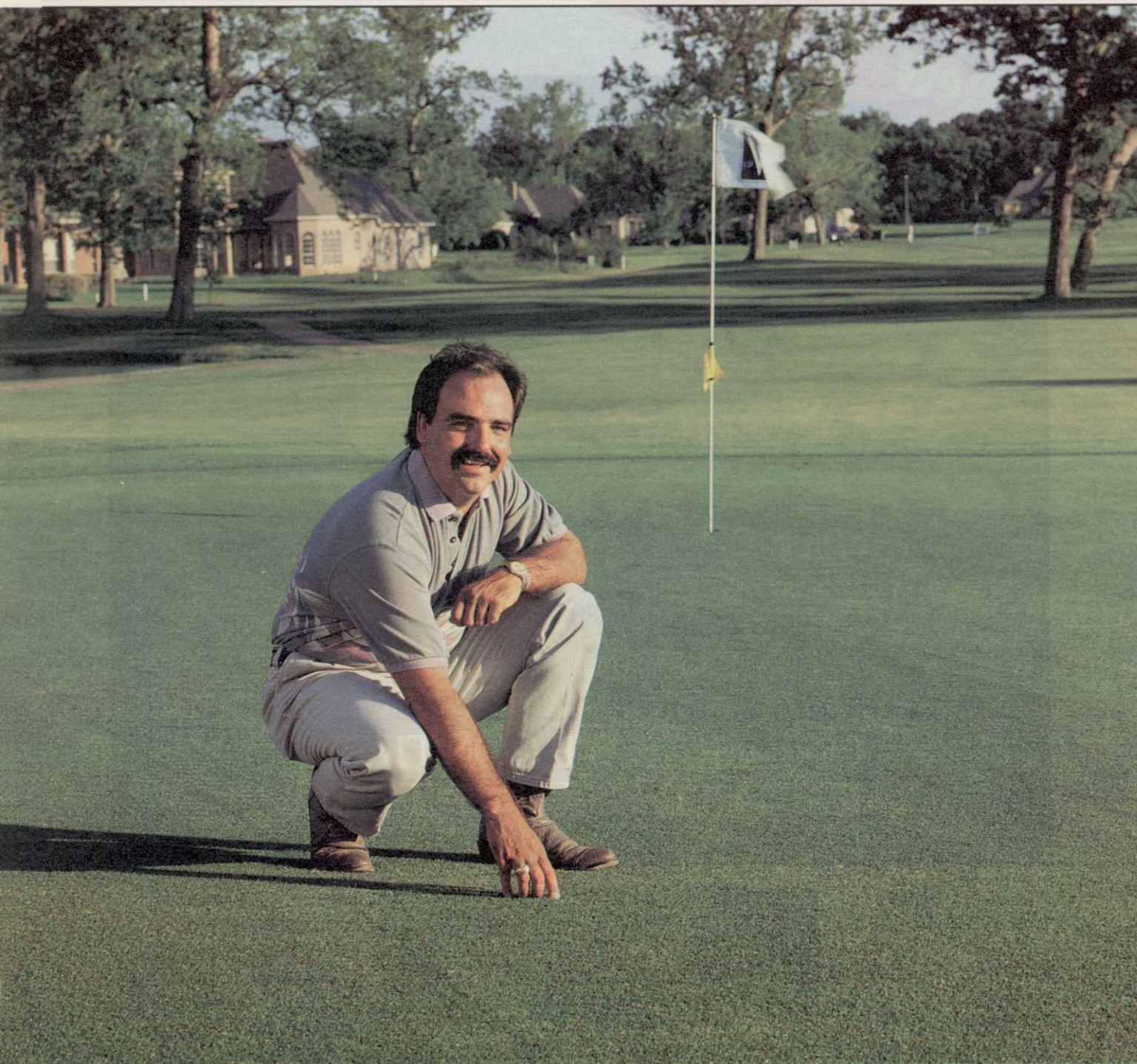
"[Before] we were always catching up... we didn't know about things until some process had failed," said Higgins. "We wanted a product that would take us ahead of the curve, and allow us to be proactive. Our data bases around the world will be monitored on a seven by 24 basis. We will be like a global watchdog."

Higgins explained a member of the computer systems support staff is being trained to be the "Patrol" expert. In the meantime, Deere & Co. has created a Computer Center here that monitors the company's data bases around the world.

"We can look [at the data] and turn it into knowledge — into information that we can actually use," said Higgins.

*Kim Acker Lipp is associate editor at Service News, a sister paper of Golf Course News, and the nation's foremost business journal covering the computer service and support industry.*

GOLF COURSE NEWS



"We have been using ROOTS™ for a couple of years, and started the 1-2-3 Program in November 1994, spraying every three weeks since then. We have better rooting on our greens during spring transition than I have seen in years past. The 1-2-3 Program may not be entirely responsible for the enhanced rooting, but our overall turf quality has definitely improved since the initiation of this program."

John Walker, Golf Course Superintendent  
Weston Lakes Country Club

**1-2-3**

roots inc.

A Division of LISA Products Corporation

3120 Weatherford Road, Independence MO



## Flowtronex installs pump no. 5,000 outside Vegas

LAS VEGAS — Flowtronex PSI has set a new high-water mark for with the installation of its 5,000th irrigation pump station at Primm Creek Golf Course here, 35 miles outside of the city.

"We are very grateful to our loyal customers in the golf industry who made this achievement possible," said company president Dave Brockway. "Our 5,000 pump stations across the globe now have a combined estimated pumping capacity of nearly 9 billion gallons per day. This 'high-water' mark means our stations can pump nearly 3 cubic miles of water every year. We see this as a true milestone."

The milemarking pump station installed at Primm Creek is a 5600 GPM VFD system that incorporates dual 14-inch Amiad EBS filters. The station assumes the water reins at a brand new resort designed by Tom Fazio, with irrigation design from Larry

Rodgers and irrigation construction by Formost Construction.

The latest event marks a long history in golf course pumping for Flowtronex PSI, a history that started with the creation of Pumping Systems, Inc. (PSI) in 1974. PSI was the brainchild of golf course irrigation contractor Jerry Pettingel, who believed in the labor-saving value of pre-fabricated pump stations. His ideas led PSI to pioneering technical developments such as hydro-pneumatic tanks, fabricated steel discharge heads, and maintenance-free solid separators.

The engineers and innovators at Flowtronex International first opened doors in 1979, initially creating pump stations for the oil and gas market. But with the decline of the industry in 1986, Flowtronex diversified and prospered by bringing variable frequency drive technology to golf courses.

Today, the Dallas, Texas-based company employs more than 100 people, in addition to its 100-plus network of service technicians around the world.

## And to celebrate the occasion...

Flowtronex PSI is offering golf professionals throughout the world a chance to help celebrate the installation of its 5,000th pump station.

"As a way of saying 'thank you' to our customers, we're holding a drawing open to any superintendent, consultant, contractor, or architect," explained company president Dave Brockway. "The winner receives a \$5,000 credit, good toward the purchase of a pump

station within the next year."

Flowtronex PSI T-shirts also will be sent to the first 100 entrants. Any one interested in registering for the \$5,000 rebate contest should contact Flowtronex PSI at 614-442-5850 for a sweepstakes entry form. Entry forms also will be provided in upcoming company advertisements appearing in various industry publications.

All entries must be postmarked by July 15, 1996.

## Cyanamid adds to sales force

WAYNE, N.J. — Strong sales and an expanding market have created changes in the Specialty Products Department at American Cyanamid Co., according to A. Thomas Perkins, Ph.D., business manager for Professional Turf, Ornamental and Pest Control Products.

**Scott Turner** moves to territory manager, Midwest region, from sales associate. His territory includes Illinois, Iowa, Wisconsin, Minnesota, North and South Dakota, Nebraska, Kansas and Missouri. He earned a B.S. in conservation from North Carolina State University and a M.S. in environmental impact from Clemson University. He resides in Chicago.

**Kit Rowe** has joined the company as territory manager, Mid-Atlantic region, covering Virginia, Maryland, Delaware, southern New Jersey, southeastern Pennsylvania and West Virginia. Previously, Rowe worked as manager of Barefoot Grass Lawn Service in Virginia Beach, Va. He earned a B.A. in environmental sciences from Otterbein College in Westerville, Ohio. He and his family reside in Virginia Beach.

**Ben Bristol**, marketing services manager, has appointed **Stephanie Dennery** to the position of integrated communication specialist. She was formerly a customer service representative in the Specialty Products Department and the Animal Health and Nutrition Division. In her new position, she acts as the liaison with outside vendors for all communication projects. She has been employed by American Cyanamid since 1993. Dennery holds a B.A. in communications from Rutgers University in New Brunswick, N.J.

GOLF COURSE NEWS

**EVERY MORNING, THERE ARE TWO THINGS YOU CAN COUNT ON: THE SUN WILL COME UP. YOUR CARRYALL WILL GO TO WORK. THAT'S RELIABILITY.** [ACCORDING TO A RECENT SURVEY OF GOLF COURSE SUPERINTENDENTS, THE CARRYALL BY CLUB CAR® IS THE MOST RELIABLE LIGHTWEIGHT TURF UTILITY VEHICLE ON THE MARKET.\*] AND NOW THAT OUR CARRYALL II PLUS HAS A NEW, MORE POWERFUL 11-HP, 4-CYCLE ENGINE, IT CAN ONLY GET BETTER. FOR PERFORMANCE, SERVICE, AND SUPPORT, RELY ON **CARRYALL**. CALL 1-800-643-1010 AND **DRIVE IT TO WORK.**



\*Based on research conducted by the Center for Golf Course Management, a subsidiary of the Golf Course Superintendents Association of America.

CIRCLE #154



## Allen comment

Continued from page 59

vibrant commercial city of Shanghai, which will be the host for the event until the end of this century.

Mainland China was always the target site for the show and Shanghai has been chosen after considering the city's premier role as the business capital of China. Beijing, Shanghai's primary rival, was considered as well as other provinces (Guangzhou, Shenzhen and Zhuhai). But in the final analysis, the decision was easily made.

Shanghai stood out as the most promising, with the potential for huge growth and expansion, leaning strongly towards real estate development, tourism and many other golf-related industries. This was the opinion shared not only by our partners but also by senior officials in China with whom we spoke when we visited earlier this year.

The Shanghai-based organizers and I realized there was a logical alliance. So this year The Hong Kong and China Golf Exhibition will be held from October 20-23, 1996, at the Shanghai International Exhibition Center

— coinciding with the Real Estate China '96 show. The two exhibitions will be held on the same floor, linked by walkways, representing 6,000 square meters of exhibition space, twice what we had for our first show in Hong Kong.

Golf course development in China cannot function without some sort of real-estate component. Our marriage is perfect, encompassing golf finance, real-estate development and construction.

Our report shows strong response for the Shanghai show, with 68 percent of space being

filled in less than three months. The bookings have come predominantly from mainland China and the USA. Bookings have also come from countries such as Singapore, Taiwan, Hong Kong, Malaysia, Australia, the UK, Japan, Canada, Indonesia, Korea, Thailand and the Philippines.

This indicates there are enough people interested in developing the game in China to justify the confidence for future growth. Here we are seeing the game building, literally, from the ground up. Exhibitors that are showing their products and services know they must enter the Chinese market

now if they are to be on the band wagon for future business relationships in China.

Clearly the show at this stage is concentrated heavily on the trade, because of the fledgling nature of the industry at the moment. But I look forward to the day when the mathematics of China's population will add up favorably for the suppliers of clubs, balls and accessories alike. But for this to happen, the trade needs to go in first and build, finance, design and construct. That's why we are holding the show in Shanghai.

Shanghai itself has a growing population of 15 million, and an area of 5,825 square kilometers. This city alone has five times the population of the highly developed market of Singapore and approximately 10 times the land area.

Singapore has now moved into the last phase of the golf industry, i.e. consumable. This is a natural state in the evolution of the golf industry and will happen in all markets sooner or later. China's golf is at the very first stage of its development and, therefore, we will see a surge in all industries associated with the world of golf.

It takes time to get a foothold in the Chinese market and that first step could well lay the foundation for future business. I have learned that it is of paramount importance to maintain good personal relationships within the region and that way doors open a lot easier and quicker, and they remain open.

I feel the major inroads into China are being made by multinational corporations, such as AT&T, Coca-Cola, Daimler-Benz, Ricoh, Volkswagen and many others. These multi-nationals, through their senior executives, will make a significant contribution to the growth of the game by buying club memberships for not only themselves but their Chinese joint venture partners. As more multi-nationals go into China, so the demand will increase.

In Asia senior executives turn to the golf course to mix business with pleasure. The golf industry will have its work cut out to meet the demand which is likely to come from this sector, which will also spin off into the local business community — it's a multiplier effect.

On a different note, but still within the industry, Golf World Exhibitions have also been asked to organize exhibitions in the Middle East, Europe and South Africa, but I personally have not committed to any additional projects. I prefer to take one step at a time. It's very important to me that we develop the China market first and then pursue other geographical locations.

Considering the results a multiplier effect could have in a country which has around a fifth of the world's population, we might just have our work cut out for us in China. That's our challenge.

GOLF COURSE NEWS

## You're ready for a sprayer with unprecedented controllability.

At Toro, sprayers are a family affair. Each is an individual, like our Multi Pro® 1100 or Workman® Turf Spray System. But together, they offer choices to meet your specific needs.

Now meet the family's newest member. The Toro Multi Pro® 5500. It's totally dedicated to liquid applications. And thoroughly Toro, top to bottom.

Above all, the 5500 is the simplest, most controllable sprayer ever built by Toro.

Ergonomically designed, it's focused on the most critical factor in sprayer controllability. The operator. So we've put gauges and other



The Workman Turf Spray System combines 200 gallon tank capacity with the mobility of Toro's versatile work vehicle.

instrumentation at the operator's fingertips, directly in front of the fatigue-fighting bucket seat. And placed the sprayer and boom controls within sight and easy reach.

Plus a foot switch to turn the boom on and off. Not to mention hydrostatic drive and power steering.

Adding up to incredibly precise applications.

The Toro Multi Pro 5500.

The newest result of our more than 80 year partnership with golf course superintendents. To create the best in beauty and playability.

Our family values.



The Multi Pro 5500 features a new drive mechanism for improved climbability and constant speed on varying terrain.



The Multi Pro 1100 is an agile performer with its 45 inch turning radius plus four wheel stability.

# TORO

Helping You Put Quality Into Play.®

For more details, contact your Toro Distributor:

1-800-803-8676  
ext. 152



## Golf Xpress makes course accessible

The American Society on Aging has awarded the Bronze Award to the Golf Xpress, an adaptive single-rider golf car that makes virtually any area of the golf course accessible to those who must play from a seated position. This award is given annually in recognition of outstanding design for products in the mature marketplace. Weighing one-third a conventional golf car, the Golf Xpress can go from the tee box, into most traps and even up on the green without damaging the course. In fact, it leaves a mark no greater than a human footprint.

Golf Xpress features include a locking, 360-degree, swivel seat; Just-One-Hand controls; powerful twin motors; anti-rollback circuitry and automatic regenerative braking; front-mount golf bag carrier and an adjustable restraint system. For more information call Electric Mobility Corp. toll-free 1-800-356-5157.

CIRCLE #303

## Scotts High K fertilizer fights Poa

There's a new weapon in the fight against *Poa annua*: High K Fertilizer Plus Prograss Poa annua Control from The Scotts Co. High K uses Scotts' patented Triaform technology to provide controlled-release nitrogen feeding and *Poa annua* control in established perennial ryegrass, creeping bentgrass, turf-type tall fescue, Kentucky bluegrass, and Kentucky bluegrass/perennial ryegrass fairways and roughs.

Repeat applications in a programmed approach will result in the elimination of *Poa annua* as a major component of the turfgrass stand. Annual applications and appropriate management practices will help prevent *Poa annua* from re-establishing as a major management problem. For more information, call the Scotts toll-free number: 1-800-543-0006.

CIRCLE #304

## Speedy soil sampling

Soil-Trak is a new navigational system designed to automate the process of soil sampling and recording of field attributes. Soil-Trak is a non-PC-based system that does not require a laptop computer on-board the sampling vehicle. Soil-Trak maps the field, creates a field grid map and navigates the operator to the sample points. Data-Trak then records the geo-referenced location where each soil sample is taken. Data-Trak also provides the interface to DGPS systems, and allows the operator to import field grid maps created with a PC-based mapping program for Soil-Trak navigation.

For further information call 1-800-328-9613.

CIRCLE #305

## Poly-Pavement stops bunker erosion

Poly-Pavement is a liquid soil solidifier that may be diluted and spray-applied to flat, sloped and vertical soil surfaces to bind the surface soil particles to one another — tenaciously. The strength of the bond is sufficient to lock soil particles in place and prevent soil movement and migration. Trap and bunker soil erosion and sand contamination is all but prevented by spray applying diluted PP onto the bunker soil to create a tough poly-

mer-soil lining.

The application method consists of three basic steps:

1. Remove as much of the bunker sand as possible without disturbing the bunker soil.
2. Gently spray-apply diluted Poly-Pavement onto the bunker soil surface liberally.
3. Allow the treated soil surface to dry and replace the bunker sand.

For more information, call 213-954-2240; or 213-954-2244.

CIRCLE #302

## Safety first with Haz-Stor lockers

Proper storage of widely used chemicals can be achieved by following the three cornerstones of a sound hazardous material management program: spill containment, security and segregation.

An easy solution to storage concerns is the use of prefabricated outdoor lockers designed specifically with chemical storage needs in mind. Haz-Stor offers a complete line of relocatable hazardous materials storage lockers ranging in size from 14.2 square feet to 720 square feet of floor space. Each locker is built

with a containment sump designed to meet and exceed EPA regulations found in 40CFR Z64.175.

Security is assured by the three-point latching system with keyed lock on every storage unit. Larger lockers may be partitioned for complete segregation of incompatible chemicals. Fork lift channels beneath the sump area make relocation quick and simple.

For complete information describing Haz-Stor storage lockers, phone 847-294-1000.

CIRCLE #301

IF YOU CAN'T SEE THE BENEFITS IN A CLEAR FUNGICIDE, THEN YOU'RE NOT LOOKING HARD ENOUGH.

We'd like to make one thing perfectly clear: next to new Banner® MAXX®, no other broad-spectrum fungicide even compares. It's the world's first transparent fungicide.

Simply put, Banner MAXX is the best tank-mix partner. It has the same properties as water. It won't clog filters and has no odor. And unlike



Other sterol inhibitors have something our fungicide doesn't. That's because Banner MAXX is not a powder or granule. It's water-based.



This should shed some light on the subject. Our active ingredient is less than 0.1 micron in size while other sterol inhibitors are about 25 microns in size.

wettable powders, it will never settle out.

Even more impressive is the fact that Banner MAXX controls 18 turf diseases, including dollar spot and summer patch. It contains no petro-

leum solvents, so there's no potential for phytotoxicity. And it's available in closed system containers.

For more details, call 1-800-395-TURF.

Because no matter how you look at it, Banner MAXX isn't like any fungicide on earth. But you can see that for yourself.



MAXXimum Value



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# Golf Course Marketplace

To reserve space in this section, call Diana Costello-Lee at 207/846-0600

## EMPLOYMENT OPPORTUNITIES

### SALESMAN WANTED

Sell to golf courses. Inexpensive, widely used pipe locator. Commission basis, 30%. **Bloch & Co., PO Box 18058, Cleveland, OH 44118. (216) 371-0979.**

### SHAPERS WANTED

Golf Course Construction Shapers Needed. Must be willing to travel. Fax resume and date available to 616-547-7009.

### WANTED

Experienced supervisors, shapers, finishers, and drainage installers. Primary work in PA, WV, VA, OH. Must travel. Send resume to: **Aspen Corporation, PO Box 737, Daniels, WV 25832. Phone: 304-763-4573, Fax: 304-763-4591.**

### GOLF COURSE CONSTRUCTION

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Project Manager, with a BS in Agronomy seeks position with Contractors, Developers, or Owners of golf course construction company, from planning through grow in. Will travel. **(941)-924-8963**

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### GOLF COURSES WANTED

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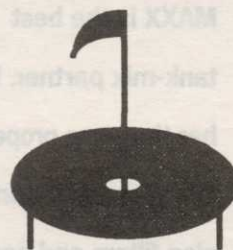
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# Golf Course Marketplace

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## CALENDAR

### May

14 — Irrigation System Operations and Principles of Design in Redmond, Wash. \*

18-19 — Golf Range Development Seminar in Arlington, Va. Contact Forecast Golf Group at 804-379-5760.

### June

3-21 — Center for Irrigation Technology's irrigation classes in Fresno, Calif. Contact Kate at 209-278-2066.

14 — Drainage Seminar in Naples, Fla. \*

### July

25-27 — TurfProducers International Summer Convention and Field Days in Sacramento, Calif. Contact Tom Ford at 847-705-9898.

28-30 — The International Lawn, Garden and Power Equipment EXPO in Louisville. Contact 800-588-8767.

30 — Midwest Regional Turf Field Day in West Lafayette, Ind. Contact 317-494-8039.

30-31 — Golf Course Development: Designing and Redesigning to the Market at Harvard University Graduate School of Design in Boston. Contact Office of Development and External Operations at 617-495-1680.

### August

1 — Golf Course Design at Harvard University Graduate School of Design in Boston. Contact Office of Development and External Operations at 617-495-1680.

5-6 — Golf Course Environmental Considerations at Harvard University Graduate School of Design in Boston. Contact Office of Development and External Operations at 617-495-1680.20 — Wisconsin Turfgrass Field Day in Madison. Contact Audra Anderson at 608-845-6536.

7-8 — Golf/Residential Site Planning at Harvard University Graduate School of Design in Boston. Contact Office of Development and External Operations at 617-495-1680.

7-8 — Penn State Turfgrass Field Days in University Park, Pa. Contact Pennsylvania Turfgrass Council at 814-863-3475.

9-10 — Golf Clubhouse Design and Site Planning at Harvard University Graduate School of Design in Boston. Contact Office of Development and External Operations at 617-495-1680.

20 — Wisconsin Turfgrass Field Day in Madison, Wis. Contact 608-845-6536.

20-24 — American Association of Nurserymen Conference in Portland, Ore. Contact 202-789-2900.

23-26 — Florida Turfgrass Association Annual Conference and Show in Tampa, Fla. Contact 800-882-6721.

28 — Ohio Turfgrass Foundation Field Day in Columbus. Contact Julie Weller at 614-261-6750.

### September

4-8 — Responsible Industry for a Sound Environment Annual Meeting in West Palm Beach, Fla. Contact RISE at 202-872-3860.

5-6 — Southwest Horticultural Trade Show in Phoenix. Contact 602-966-1610.

### October

7 — Ohio Turfgrass Foundation Golf Tournament in Centerville. Contact Julie Weller at 614-261-6750.

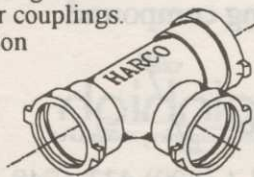
27-29 — Golf Course News' Public Golf Forum in Chicago. Contact the GCN Conference Group at 207-846-0600.

\* For more information contact the GC-SAA Education Office at 800-472-7878.

## HARCO DUCTILE IRON FITTINGS FOR GOLF COURSE IRRIGATION SYSTEMS

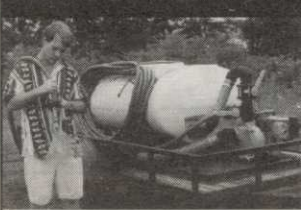
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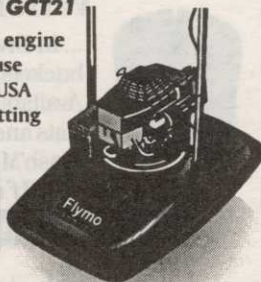
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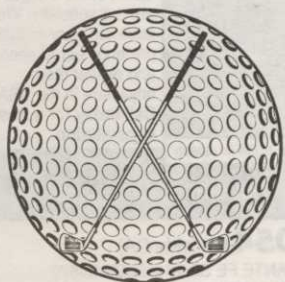
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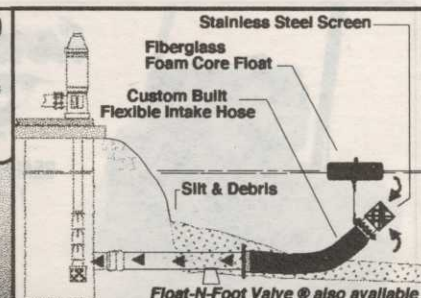
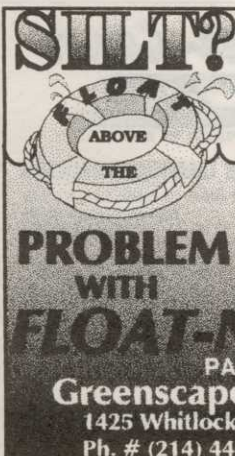
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CIRCLE #183



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CIRCLE #182



## NTC: Group buying

Continued from page 27

ronmental, governmental affairs services, and so forth, without having to pay extra — what do you think the owner's going to do?

"We believe our long-term relationships between the owners and operators and suppliers is mutually profitable and mutually beneficial."

O'Connor believes NTC's overall services and the financial backing of NCB will negate any misgivings an owner might have. "Once an owner understands what NTC is and what we can do for them, they'll see the advantages of belonging to our cooperative," he explained.

The Golf Course Superintendents Association of America (GCSAA), encourages buying programs or anything else that will help its members, but it will not judge the merits of either the Smart Buy or the NTC approach.

Continued on next page

# Golf Course Marketplace

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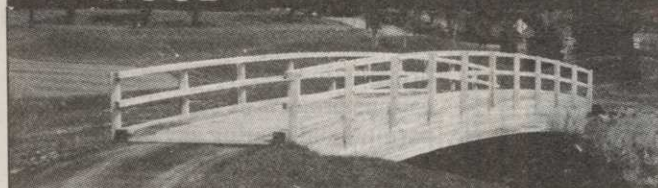
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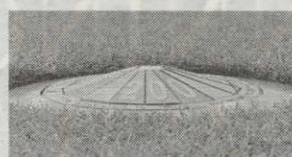


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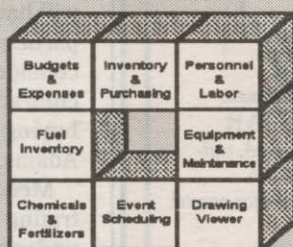
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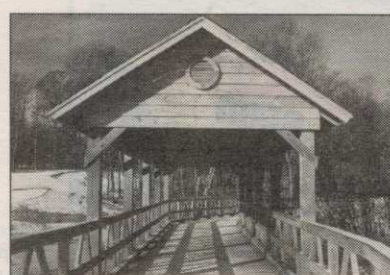
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## NTC: Group buying

Continued from previous page

Because membership in a cooperative falls under the jurisdiction of the Security and Exchange Commission and the financial requirements of each state, NTC must file documents state-by-state before it can begin soliciting members. That's why NTC began its membership recruitment in late March in just two states, Pennsylvania and Virginia. Marketing memberships in Maryland and Delaware began in mid-April. By June, Ohio, Florida, North Carolina and South Carolina are expected to be involved. The rest of the states will follow through the summer and early fall, O'Connor said.

The NTC can be reached by phone at 410-997-1840.



# Meadowbrook targets upscale daily-fee market

By PETER BLAIS

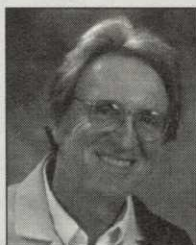
**B**EVERLY HILLS, Calif. — A Beverly Hills firm is poised to enter the upscale, daily-fee course development, acquisition and management market by building and managing a pair of California courses.

Meadowbrook Golf Inc. plans to begin construction of golf facilities in Irvine and Palmdale this year and hopes to have another three to five contracts signed by year's end, according to company President and Chief Executive Officer Roger Behrstock. The publicly held firm is also considering buying an eight-course management company, developing numerous practice centers and building a Jack

Nicklaus-designed course in Fresno.

"We see a tremendous gap in the development area," said Behrstock, a long-time financier and real-estate developer. "Our founders all have extensive experience in real estate and financing. We've entered partnerships with people with extensive golf experience. We have the background and resources to succeed in this business."

In addition to his involvement in Meadowbrook, Behrstock, 54, is president and majority shareholder of Entertainment Capital Corp., a financial consulting, real-estate finance and



Roger Behrstock

property development company. Meadowbrook's other principal shareholders are Director and Chairman of the Board Arnold Rosenstein and Vice Chairman Glenn Golenberg. Rosenstein is former president of Realtech Development and Construction, where he was involved in the development, construction and operation of commercial and residential real estate. Golenberg is a partner in Golenberg and Geller, a merchant banking firm.

Meadowbrook recently completed a \$1 million private placement of its common stock and will use the pro-

*'We're bringing proprietary management to the national level.*

*'We'll form subsidiaries with a local partner to develop or acquire courses in a certain area.'*

— Roger Behrstock,  
president & CEO

ceeds for working capital and general corporate purposes. The company plans to form investment partnerships with other businesses and individuals to build or buy additional courses throughout the country.

"We're bringing proprietary management to the national level," Behrstock explained. "We'll form subsidiaries with a local partner to develop or acquire courses in a certain area. Lincoln Property (a major real-estate developer) used the concept very successfully, bringing in local representatives in various projects as say, a one-third partner, and sharing any profits."

Meadowbrook (through its Target Golf subsidiary) joined forces with two management companies to provide operational expertise at its facilities.

Team Golf, owned by Ken Davidson and Ken Ferrell, have 10-percent interests in Target Golf. Davidson has 13 years experience acquiring and managing golf facilities, having served as a vice president in charge of 32 courses with American Golf Corp. Ferrell has nine years experience in the management business and until recently was general manager at Tustin Ranch Golf Course. All Team Golf projects, including the Palmdale and Irvine facilities, will be investment partnerships with Target Golf as general partner.

Meadowbrook formed a second subsidiary called Century Golf Inc. with Steve Adams, president of Golf Resources Inc. (GRI). GRI manages 10 courses in California and Oregon and owns Shieldcrest Country Club in Klamath Falls, Ore. Adams, who also owns Gold Hills Country Club in Redding, is chief operating officer and 20-percent owner of Century. Century will have the right of first refusal to participate in any future projects Adams considers (other than management-only contracts). Century is also considering buying 5-year-old Shieldcrest from Adams.

Meadowbrook is currently concentrating its efforts on what it sees as an under-supplied California golf market. The projects closest to beginning construction are:

- A 27-hole David Graham/Gary Panks course and practice center on Lockheed Aircraft property in Palmdale. The course is part of a business park Lockheed is planning. Target has a lease/option on the property. Plans are to start construction this year and open sometime in 1998.

- An 18-hole Keith Foster design tentatively called Lake Forest in Irvine. Target could start construction could start this fall.

- An 18-hole Jack Nicklaus design in Fresno called Ball Ranch. The course is located near a nature preserve along the San Joaquin River and has received all necessary permits. Construction is set to start but is being delayed by housing considerations, Behrstock said.

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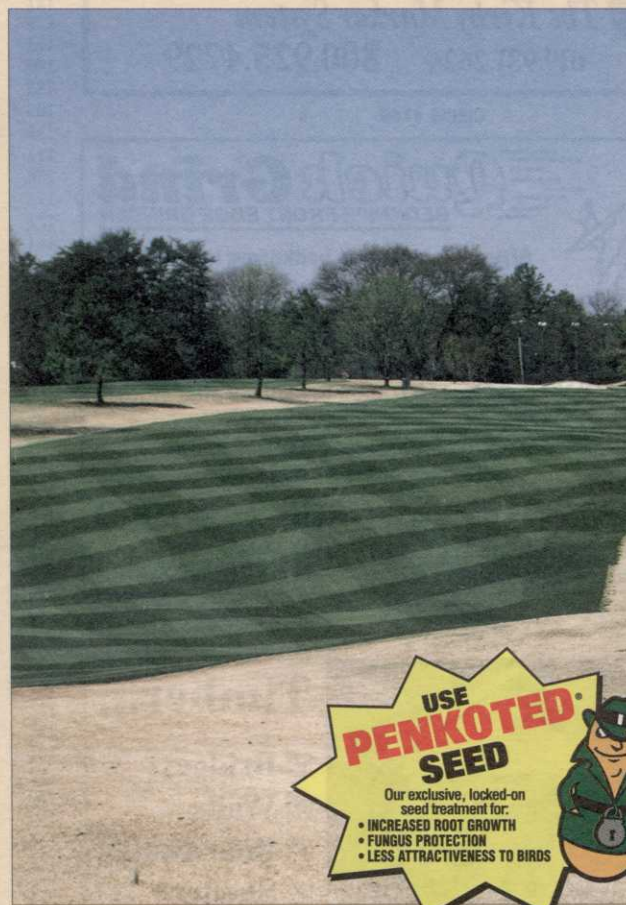
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