

# GOLF COURSE NEWS

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## Dedman, Family Dye to keynote Expo

Nation's only public-access conference and show returns to Orlando, Nov. 9-10

By HAL PHILLIPS

ORLANDO, Fla. — Ground-breaking design and innovative management practices will set the tone when The Family Dye and Robert Dedman headline this year's edition of Golf Course Expo, scheduled for Nov. 9 and 10 here at the Orange County Convention Center.

While Pete and Alice Dye have played a major role in rewriting the book on modern golf course architecture, Dedman — founder and chairman of Club Corporation International — has been no less a pioneer in the world of

course management.

The Dyes — Pete, Alice and sons Perry and P.B. — will share the dais at 9 a.m. on Nov. 9, keynoting Day I of the second annual Golf Course Expo, the only national trade show and conference targeting superintendents, managers and developers of public-access facilities. Dedman will keynote Day II, also at 9 a.m.

"We're thrilled to have them aboard," said Charles von Brecht, publisher of *Golf Course News*, which sponsors Golf Course Expo. "Robert Dedman has simply changed the way golf courses are operated,



ClubCorp. Chairman Robert Dedman will keynote Day II.

and the Dyes are one of the most famous families in the game, each of them meeting the very different, specific needs of public-access golf."

Dedman, who founded Franklin Federal Bancorp

Continued on page 46

## New strains stand out at fescue trials

By MARK LESLIE

BELTSVILLE, Md. — Oh, how the mighty have fallen in the ever more popular world of fine fescues. With the release of the first-year findings in the U.S. Department of Agriculture's new National Turfgrass Evaluation Program (NTEP), only two of the previous four-year trial's top 10 fine fescues are in this top 10 and only three are even in the top 30 after the first year of this study.

And this with 35 fewer varieties being tested.

Turfgrass breeders have made major strides, improving color, heat and drought-tolerance and resistance to foliar diseases, particularly

Continued on page 20



### SOMEWHERE IKE IS SMILING

Workers pour a new root-zone mix for the famed Eisenhower Green, located in America's most visible front yard. To celebrate the USGA centennial, President Clinton wanted the "First Putting Surface" refurbished and architect Robert Trent Jones II obliged. See page 3 for story.

## Cities turn to non-profit management groups

By PETER BLAIS

Seattle recently turned over operation of its three public courses to a newly formed, non-profit corporation, a move being considered in a growing number of U.S. cities.

"It's gaining favor throughout the country because it works," said Lynnie Cooke, executive director of the Baltimore Municipal Golf Corp., which is frequently cited as a model operation by non-profit advocates.

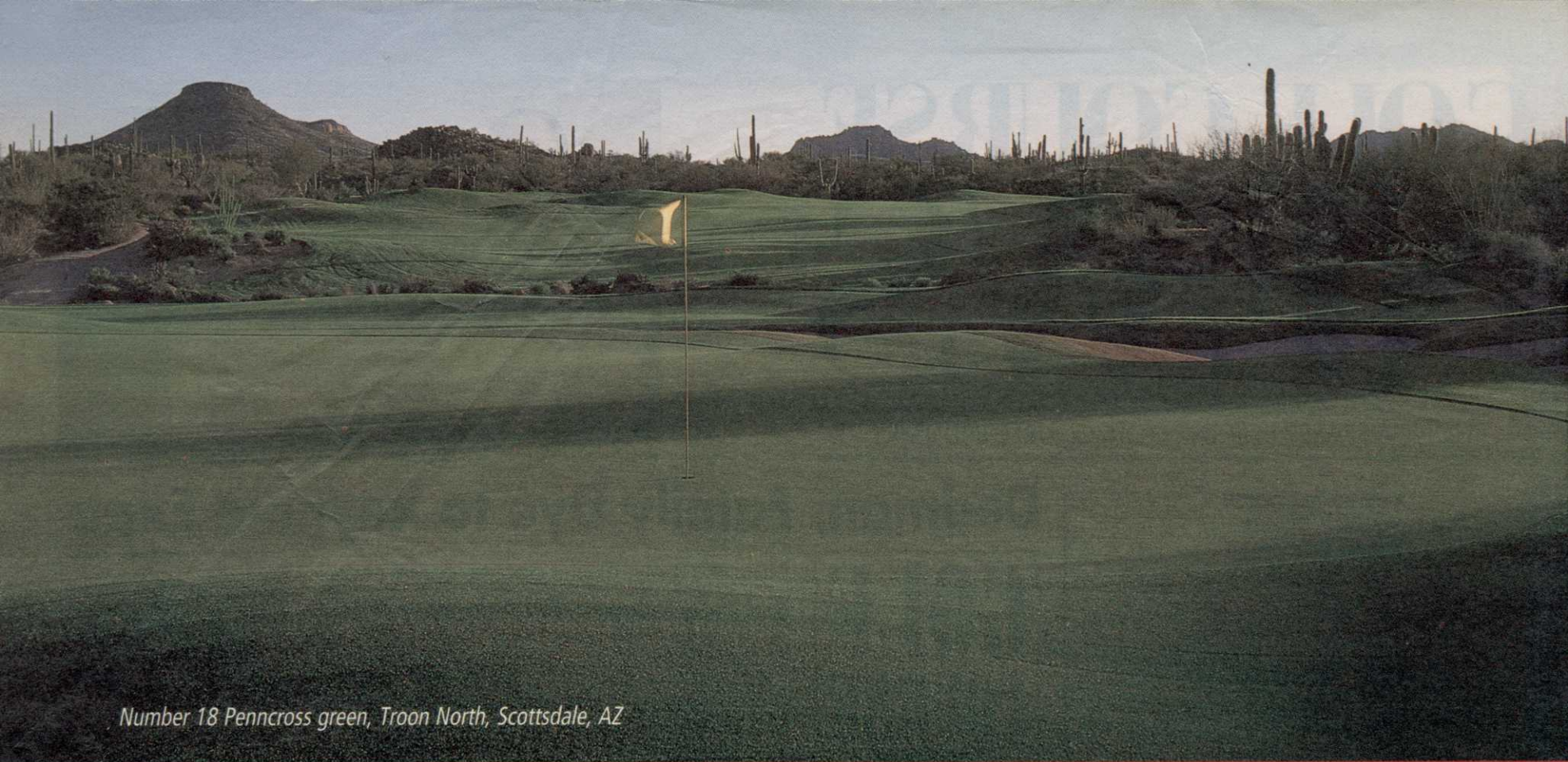
Since assuming control in 1985, BMGC has made \$4.5 million in improvements to the city's five golf facilities and is planning a sixth course, all at no expense to

taxpayers. Annual rounds increased from 195,000 in 1984 to 358,000 in 1990. Green fees, reportedly the lowest among major municipal layouts in the Mid-Atlantic, have remained at \$10.50 since 1987. Two of its courses, Pine Ridge and Mt. Pleasant, are generally considered among the top 10 public layouts in Maryland, Pennsylvania, Delaware and Virginia.

In light of Baltimore's success, Indianapolis is set to hand over the reins to three of its public courses to a non-profit organization, Cooke said. Newark, N.J., officials visited Cooke in early July and are seriously considering establishing a

Continued on page 37





Number 18 Penncross green, Troon North, Scottsdale, AZ

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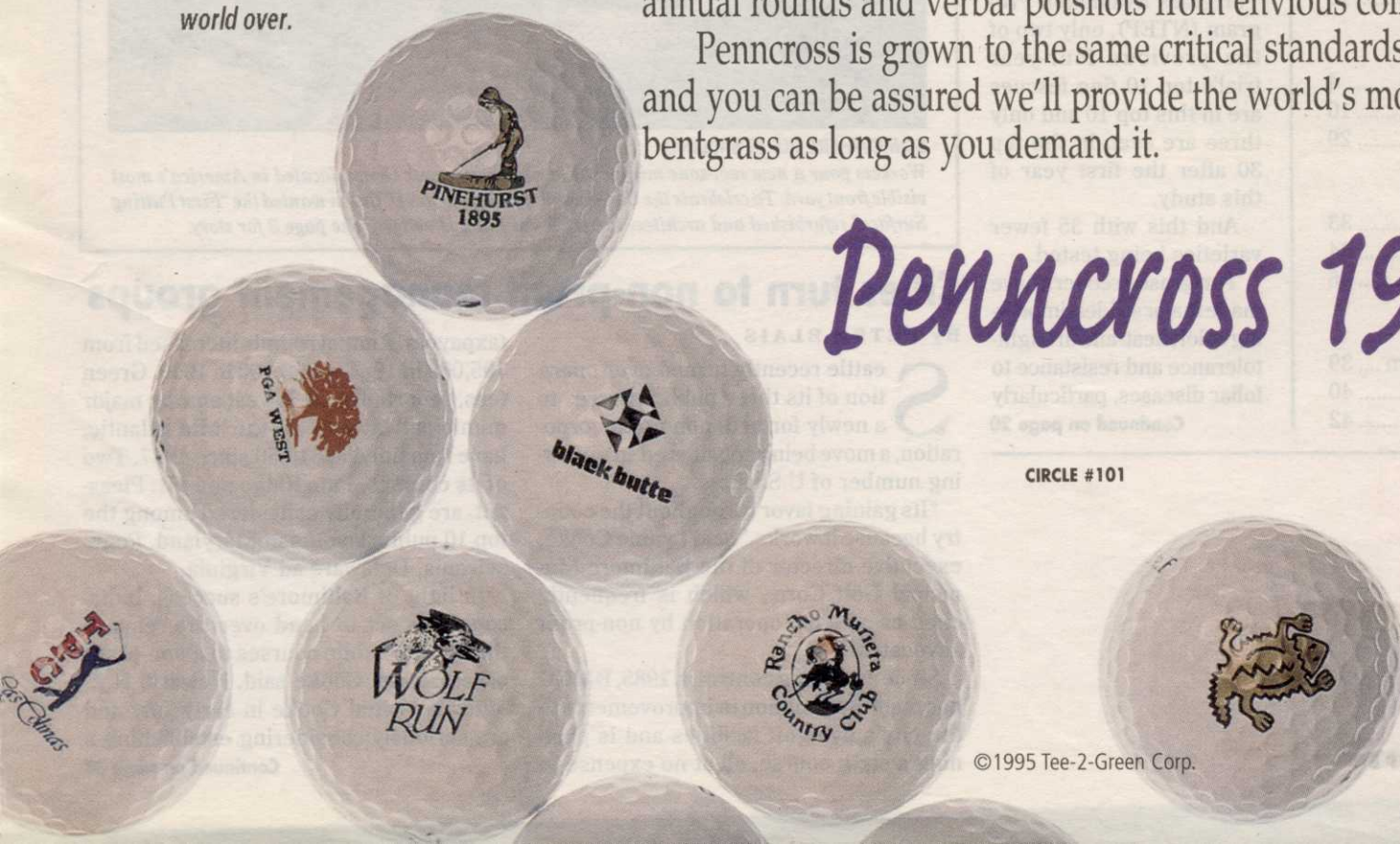
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## NEWS IN BRIEF

**WILMINGTON, Ill.** — Golfers who land in the traps at the new 18-hole Cinder Ridge Golf Course north of here will find their balls resting on something different: coal cinders. George Kappos, a Chicagoland restaurateur who developed the 230-acre course, replaced the traditional sand traps with coal cinders. Assistant pro Brian Tulk said cinders are actually softer than sand and play similarly, but do not cause as much wear on golf clubs.

**ST. PAUL, Minn.** — Two long-closed holes at the 27-hole Tartan Park course at 3M Co.'s Lake Elmo recreational facility have reopened. The two holes were flooded repeatedly in the mid-1970s and were closed. Tartan Park has three nines: Red, White and Blue.

**ANAHEIM, Calif.** — The city has swapped 143 gas-operated golf cars at its two city-owned golf courses for electric cars. Gas-powered cars will be outlawed in California by 1997. The battery-powered cars go about three rounds between charges. Anaheim's Hills and H. G. "Dad" Miller courses host about 200,000 rounds of golf annually.

**SARDIS, Miss.** — North Mississippi's Sardis Reservoir is widely known for its excellent bass fishing. Its reputation may soon expand to include fine golf. Construction is underway at the new \$3.4 million 27-hole public golf facility (regulation 18-hole course, 9-hole par-3 course, driving range) at John Kyle State Park. Golf course construction and park renovations are part of a \$39 million state package to improve state parks.

**VAIL, Colo.** — Construction is underway on Cordillera's Valley Club Golf Course, a par-72 course scheduled to open in spring 1997. Designed by Tom Fazio, the course is located in the Cordillera Valley Club community.

## White House putting green restored to former glory

By MARK LESLIE

**WASHINGTON, D.C.** — The Eisenhower putting green. Ike built it, some fellow named Haldeman had it bulldozed when perhaps he needed to express some control during the uncontrollable Watergate months, and two decades later another man in another party has had it restored.

The legacy of the Eisenhower green, built on White House grounds when Ike was president in the 1950s, was renewed last September at a dinner celebrating the President's Cup. It was then, during a discussion with U.S. Golf Association (USGA) President Reg Murphy and course architect Robert Trent Jones Jr., that President Bill Clinton agreed that this centennial of the USGA would be the perfect time to restore Ike's practice green.

*'It turned out that while Nixon was away for a weekend, H.R. Haldeman had it removed.'*

— Robert Trent Jones II

It became a project of the people.

When temperatures warmed this spring Jones got the job done. Shaper Doug Ingram of Jones' Greenscape construction firm spent a week in late April and early May contouring the tiny 1,500-square-foot surface and installing the irrigation. Indianapolis irrigation consultant Tony Altum of A.S. Altum Irrigation Design designed the irrigation system. Toro Irrigation donated the system and mow-

ing equipment. Summit-Hall and Patton sod farms gave the turf. Lofts Seed Co.'s Dr. Rich Hurley consulted on the project, and Par Aide gave the flag and cups.

USGA Green Section Mid-Atlantic Region Director Stanley Zontek and Glenn Smickley, superintendent at nearby Robert Trent Jones Golf Course in Manassas, Va., have provided the agronomic expertise, and the Jones Course will loan any specialty equipment for aeration or other jobs necessary in the once-a-year program.

Saying the restoration project doesn't have to do with presidents or political parties but with the game of golf, Jones said: "The White House is the peoples' house. It has trees planted by Andrew Jackson. It has the cuttings from a tree planted by John Quincy Adams. The

Continued on page 9



## ROUGH OUTLINE

The par-5 11th hole takes shape at the Sanctuary, an ultra-exclusive, 18-hole layout designed by Global Golf Design (GGD) outside Castle Rock, Colo. Developed by Dave Liniger, founder of RE/MAX Real Estate, the Sanctuary will be seeded Sept. 15, and should be ready for play next summer. Niebur Golf is handling course construction. In other GGD news, Bill Howard has joined the design staff. A graduate of Colorado State with degrees in landscape architecture and fine arts, Howard is working on-site at the Sanctuary.

## Watson assails short course 'lip service'

**KANSAS CITY, Mo.** — Long-time PGA star Tom Watson said more mini-, four- and five-hole golf courses should be built in the United States to encourage and develop junior golf. The demise of caddie programs and the increasing costs to play 18 holes are keeping U.S. youngsters from learning and playing the game, he said.

"Mini-courses" are happening in Kansas City. A three-hole course opened last month at Ironhorse Golf Club in Leawood. A four-hole course, sponsored by the Kansas City Golf Foundation, is planned for the Blue River Golf Academy in Swope Park.

"There are no places for kids to play," Watson said at a junior golf clinic at Blue River attended by 800 youngsters. "I've seen many times in Scotland and Ireland where they've set up small parks with four or five tiny greens, no bunkers, just a place for people learning the game to hit a ball to a target and putt the ball in a hole."

"This is the most important thing we can do for golf," Watson told the *Kansas*

Continued on page 45

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## Zokol enters design field

VANCOUVER, B.C. — Canadian PGA touring pro Richard Zokol ruffled a few delicate feathers in June 1993 when he said high-profile course designers like Pete Dye and Jack Nicklaus designed courses that were too hard for the ordinary player and too artificial in their massive rearranging of nature.

At the time Zokol made those comments, many said the two-time Tour winner was a golfer, and not an architect, and therefore didn't really know what he was talking about. That's changed.

Zokol, 35, is edging into golf course design while still playing professional golf. He's created a design model for a course at Tower Ranch in Kelowna that has been idling for 18 months. He is also excited about a design bid for the refurbishment of Fraserview, the old Vancouver Park Board course set for a makeover in 1997.

"Fraserview is a masterpiece waiting to happen," Zokol told *The Province*. "I'm going to put my heart and soul in it. It will be my launching pad." The bid will be chosen within a year.

Zokol is still as opinionated as ever. He has said he's "convinced the leading architects are not building the type of courses people want."

"I call it the McDonald's drive-thru, fast-food window golf. I think it's a shame, all the (U.S. Tour's) TPC courses. The typical TPC course is boom it anywhere and putt the eyes out. It's negatively affecting the typical (U.S.) player."

Zokol calls his young design company Callidus, which in Latin means knowledge gained through experience.

"I'm not trying to reinvent the wheel, but I want to bring back courses from earlier this century like those of Donald Ross, (A.W.) Tillinghast and Stanley Thompson," he said. "I have zero experience in course design, but I think I'm sensitive to the (needs of the) common player. What I don't know, I'll get people around me who are the best."

## Sacramento fast becoming area of plenty

SACRAMENTO, Calif. — Described as one of the most golf-starved areas in the country in the late 1980s, Sacramento County is now in the midst of a busy golf course boom that could make it a golf destination.

Five public courses from Lincoln to Lockeford are scheduled to open in 1995. They include a city-owned course that is Sacramento's first municipal layout in more than 40 years. On top of that, nine more golf courses are in the planning stages.

Planners and developers said the boom is a coincidence. PGA member Tim Hovanscek says

it's more a case of simple demand. Hovanscek, who will be the golf pro at the Twelve Bridges course in Lincoln set to open in November, recently completed a PGA master's thesis on developing golf communities that included Sacramento.

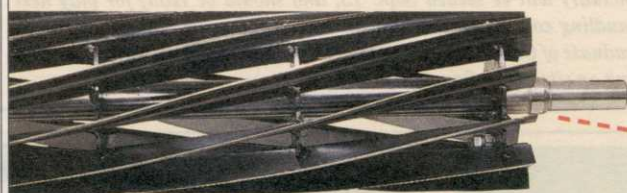
"Once you look at the demographics and all the studies," Hovanscek told the *Sacramento Bee*, "you could probably build another eight or 10 courses in the area comfortably."

The new city-owned Bart Cavanaugh Golf Course in nearby Freeport opened for play this July.

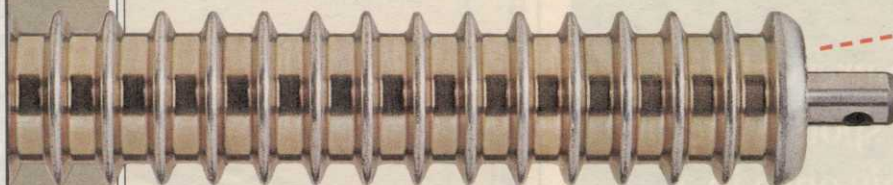
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# Drowning victim's family files golf course suit

Mother says owner should have known her son would trespass and the pond should have been fenced

NEW IBERIA, La. — A woman whose 11-year-old son drowned in a pond at the Squirrel Run Golf Course in 1994 has filed suit against the golf course owners, managers, former owners Perry and Emma Lou Segara, and others.

Elsa Jones filed suit on behalf of herself and her deceased son, Kendall Jones. Kendall Jones drowned June 13, 1994 after falling into a pond on the golf course

where he and several other boys were allegedly looking for golf balls. Other witnesses have said the boys were swimming at the pond and that Kendall jumped in and did not come up. New Iberia Police have said Jones and the boys were trespassing at the time of the incident.

The suit, which is filed against 13 different individuals and corporations including the course architect, alleges that the defen-

dants were negligent because they "knew or should have known that children were reasonably anticipated to be in the area of the pond in question because of the attraction of the pond and premises."

The suit also claims liability against the defendants due to "failing to fence the pond in question, failing to restrict and/or supervise the area containing the pond in question, failing to post signs warning of

the dangers of playing near and/or swimming in the pond, and failing to take all other necessary and reasonable precautions to limit or prevent the dangers contained in the pond in question."

The Daily Iberian has reported that the only party named in the suit that has an interest in the golf course — both currently and at the time of the incident — is S. R. (Squirrel Run) Golf, Inc. owners and operators.

## Fla. company specializing in short courses

WINTER HAVEN, Fla. — The Classic Golf Group Inc. in Winter Haven is a company pursuing a fresh idea: designing shorter 18-hole golf courses for seniors and women.

Neal Harris, an Orlando-area partner in the company, said the idea of shorter, but challenging courses should appeal to real estate developers. A regular, 18-hole championship course of 6,800 to 7,200 yards usually requires at least 150 acres. A Classic Challenge course, the trademark name for the company's course designs, is about 5,600 yards from the back tees and 4,200 from the forward tees.

The company's first course will be at Royal Highlands, a retirement community being developed in Leesburgh by Pringle Development Co.

## Clemson course already sold out

CLEMSON, S.C. — Build it and they will buy memberships.

That's the case these days at Clemson University, where school officials said all 450 memberships for the new on-campus golf course have been sold, even though the course and adjacent conference center on Lake Hartwell won't open until October.

The memberships brought in about \$675,000 and will help pay for construction of the \$3.8 million Walker Golf Course. The championship-level course is scheduled to open Oct. 1, along with the 54,000 square-foot Madren Continuing Education and Conference Center south of the main campus.

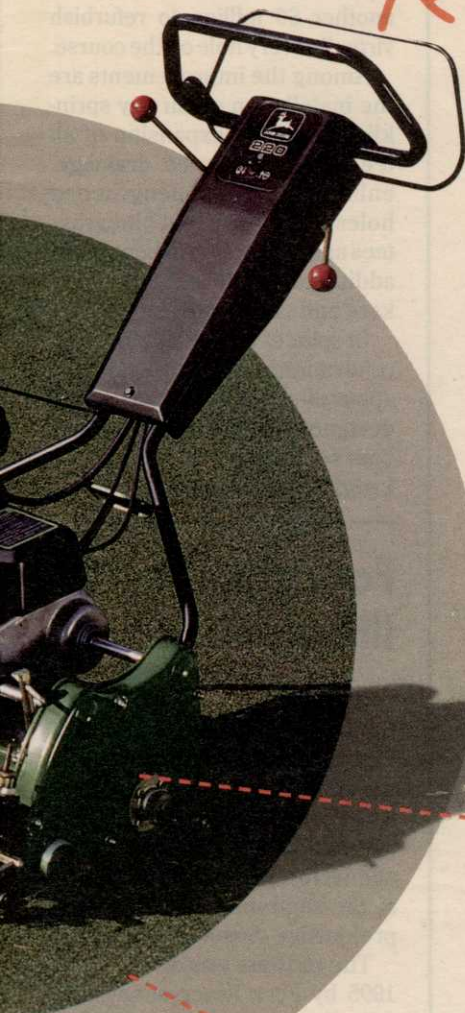
Construction of the golf course is complete and officials are now waiting for the course's Bermuda grass to grow in.

## BLYTHE SEEKS TO DOMINATE CHARLOTTE GOLF MARKET

CHARLOTTE, N.C. — Blythe, Blythe & Currie, developer of Charlotte Golf Links in south Charlotte, is readying to build another course in the University City area. The course will be the third step in the company's long-range plan to be a dominant owner and operator of public golf courses in Charlotte. A second Blythe course, The Divide, is underway in East Charlotte. Ultimately, the company plans to have five golf courses circling Interstate 485.

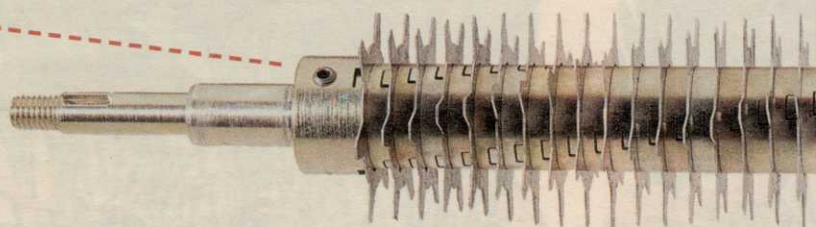
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## Construction set to start on Lake Mich. layout

SHEBOYGAN, Wis. — Keep an eye and ear out for Whistling Straits in the years ahead.

Whistling Straits is a proposed golf course on the shores of Lake Michigan. Bulldozers are just starting to work on the site.

The land is owned by the Kohler Co. and chairman of the board and president Herbert V. Kohler Jr. is a golf fanatic. Kohler has already developed one outstanding golf facility, the 36-hole Blackwolf Run.

Kohler has hired golf course architect Pete Dye to transform the 560 acres of lakefront property just north of Sheboygan. The site, on

the abandoned Camp Haven military base, is essentially a two-mile ribbon on bluffs overlooking Lake Michigan.

John Green, the Kohler Co.'s landscape director, told the *Milwaukee Journal Sentinel* recently, "His goal is for Whistling Straits to be right up there with Pine Valley. I don't know if he'd say that but that's what he's charged us with."

Whistling Straits is tentatively planned as a links-style layout, with 14 holes routed along the edge of the bluffs. It will also be a walkers-only course and green fees are expected to be at least \$100. The course is scheduled to open in June 1997.

## Chattanooga will add two courses

CHATTANOOGA, Tenn. — The number of golf courses in the Chattanooga area will jump by two in the coming months.

Eagle Bluff, which began as River Run and is undergoing extensive redesign work, will open Sept. 15 if all goes as planned.

Little Creek, an 18-hole course being built just across the state line in Ringgold, Ga., will open in early 1996.

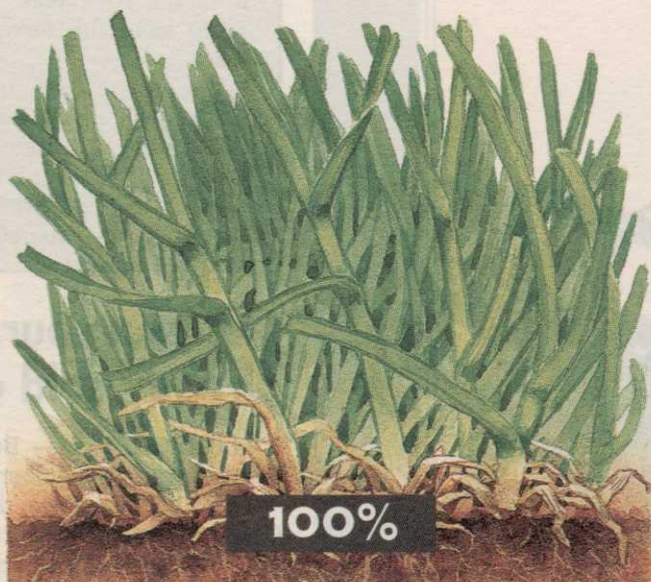
Eagle Bluff, which will be semi-private, has risen from the ashes of the former River Run, which had 10 holes open with routing for the other

eight, but fell apart after builder Don Williams went bankrupt.

HMS Golf Management, which manages several courses in Georgia and South Carolina, stepped in and architect Bill Bergin has rebuilt the tees and greens, rerouted some holes and finished the remaining eight.

Long-time golf course owner Red Fisher, 71, is helping oversee construction of Little Creek, which was designed by Don Brooks of Concord. Fisher says Little Creek will have summer and winter greens.

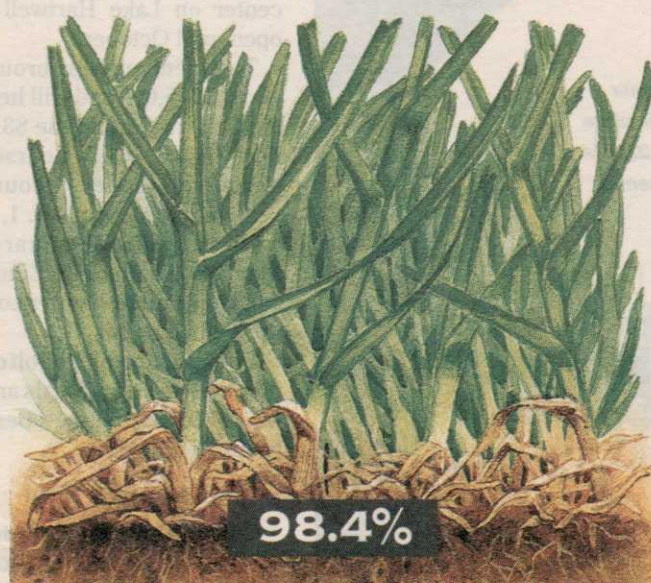
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CIRCLE #105

## Park salvages Chicago track

CHICAGO — The 27-hole Golden Acres Golf Course has been rescued by the Schaumburg Park District.

The park district bought the course on 200-plus acres for \$15.5 million in 1989. Since then, it has spent \$5 million to build a 46,000-square-foot clubhouse facility and another \$6 million to refurbish virtually every hole on the course.

Among the improvements are the installation of fairway sprinkling systems, expansion of all tee boxes, improved drainage, enlarged greens, lengthened holes, replacement of bluegrass tees and fairways with bentgrass, additional ponds and more bunkers and sand traps.

In spite of all the changes and renovations, the course remains about 90 percent the way it was designed in the 1920s by golf course architects William B. Langford and Theodore Moreau.

## Fore signs on 21 Illinois facilities

CHICAGO — Fore Reservations recently announced that 21 Chicago area and southern Illinois golf courses have installed a new golf course software package that allows golf course personnel to schedule tee times and at the same time create a comprehensive customer database.

The software was developed in 1995 by Fore Reservations, Inc. following research that revealed 95 percent of golf courses throughout the country have no way of identifying their golfing customers.

The software allows a golf course to track the playing history of customers, no-shows and weather-related cancellations at its facilities.

### CORRECTION

Because of a reporting error, there was a mistake in the June news brief detailing the availability of the 1995 Illinois Urban Pest Management Handbook. The handbook is \$10 and can be obtained by calling 217-333-2007.

GOLF COURSE NEWS



## Jones' training ground reopens in Atlanta

ATLANTA, Ga. — The East Lake Golf Club near downtown Atlanta, where Bobby Jones learned to play golf, recently reopened after a \$20 million restoration project that has brought the treasured Donald Ross antique back to its original glory.

Developer Tom Cousins and golf course architect Rees Jones have brought East Lake's rolling, tree-lined fairways and classic vistas all the way back, and then some. The club's famous Tudor-style clubhouse has been returned to its original 1926 condition and design.

Jim Gerber, East Lake's director of golf, left a prominent position at the Maidstone Club in East Hampton, N.Y. to join the East Lake project.

Every inch of grass has either been sodded or re-seeded and bunkers have been restored to the original style.

The course will host the 2001 U.S. Amateur and the Southern Amateur in 2002.

In its earlier heyday, East Lake hosted the United States Women's National championship and the 1963 Ryder Cup matches.

## L.A. course gets needed upgrade

THOUSAND OAKS, Calif. — Los Robles Golf Course in Thousand Oaks, one of Ventura County's most popular public golf courses, may soon be the recipient of a much-needed multi-million dollar renovation project.

The Thousand Oaks City Council is considering a proposed \$3 million renovation plan. It has agreed to pay consultant Halsey Daray Golf of San Diego County \$80,000 to help figure out what the course needs to fall

into line with other top-notch courses come the 21st century.

The course, subjected to about 100,000 rounds per year, has suffered extensive wear and tear and everything from the irrigation system to the clubhouse, pro shop and parking lot needs repairs, if not an outright overhaul.

The course has an annual net income of \$200,000, some of which has gone into a city golf course reserve fund over the years.

## Ventana Canyon \$4M remodel moving along

TUCSON, Ariz. — A \$4 million renovation project on two golf courses at the Ventana Golf & Racquet Club is underway, including a unique heating and cooling system for the scenic par-3, No.3 on the Mountain Course.

Nestled in a small canyon, the No. 3 green is the last to lose its frost on cool mornings and is usually the hottest green during the day because of heat radiating from surrounding rock faces. The heating and cooling system is the first of its kind in the country.

The front nine of Ventana's Canyon Course and the back nine of the Mountain Course will be closed for extensive resurfacing projects starting this month and continuing through early October.

## Putting course ready in Phoenix

PHOENIX — The Arizona Biltmore now features an 18-hole putting course that measures 715 yards from the back tees.

The course has a variety of par-2 and par-3 holes. Par is 43. Five holes include water features, five have sand traps and each hole takes advantage of existing landscaping as much as possible.

The course is located next to the Biltmore's North Patio area and nestled among 13 guest cottages. The course, which opened in December, is open from 10 a.m. to dusk. Green fees are \$10 for adults and \$5 for children.

## Scaled-back NY track opens

MILTON, N.Y. — The six-year odyssey of owner Allen Hills and his Pioneer Hills Golf Course has created a nine-hole, par-35 public golf course that has become an instant hit with area golfers.

Hills began building Pioneer Hills in 1989 and plans called for an 18-hole course. Federally-protected wetlands on the land, however, forced Hills to scale back his vision. The course opened in June.



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## Florida project obtains financing

JACKSONVILLE, Fla. — A group of businessmen proposing an \$8 million private golf club have signed up enough members to make it fly.

The not-for-profit Pablo Creek Club announced last December it would give itself until March 15 to get \$40,000 commitments from 200 members. It then extended the deadline to June 15 when the group failed to attract enough backers.

Project spokesman Jay Skelton said the goal now is 150 commitments, which would generate \$6

million, enough to build the 18-hole golf course but not the proposed \$2 million, 10,000-square-foot clubhouse. Skelton said the clubhouse can be financed later as additional members sign on.

Pablo Creek Club will be located on 300 acres south of the American Heritage Life building, north of Pablo Creek and west of the Intracoastal Waterway. Dano Davis, the chairman of Winn-Dixie Stores Inc., owns the property and agreed to donate it to the club if enough people commit to becoming members.

## Mayor seeks solutions for Bayonne layout

BAYONNE, N.J. — Mayor Leonard P. Kiczek's plan to build an 18-hole golf course on top of a former landfill has run into an obstacle: the land is too unstable to support a clubhouse or maintenance building.

Undaunted, Kiczek has said the buildings could possibly be built at the Military Ocean Terminal along with a bridge over a New York Harbor inlet to provide golfers and work crews access to the golf course. That idea depends on the fate of the military base. The U.S. Defense Department has recommended its main

operations be relocated to Fort Monmouth.

Meanwhile, developers who had been interested in building a golf course at Liberty State Park — a plan ultimately rejected by Gov. Christie Whitman — are now reportedly interested in the Bayonne landfill site and plan to visit it to talk with local officials.

Closed in 1983 by the Department of Environmental Protection, the site is contaminated with PCBs, mercury, nickel and oil, according to environmental records. DEP is reviewing its files to assess environmental status.

## Bay State golf board honored

ACUSHNET, Mass. — The Southeastern Regional Planning and Economic Development District (SRPEDD) has awarded a Special Recognition Award to the Acushnet Golf and Recreation Committee for its role in developing Acushnet Golf Course.

The volunteer committee, along with Golf Realty Advisors, Inc., obtained town approval for the issuance of \$5.7 million in Special Legislation General Obligation Bonds to finance construction. In announcing the award, SRPEDD called the Acushnet Golf Course "a model of taking a concept through the planning stage and obtaining town meeting approval."

## Watery range to float in NY state

TROY, N.Y. — The sight of a golf ball headed for water usually means trouble, but not at a new driving range under construction in Troy.

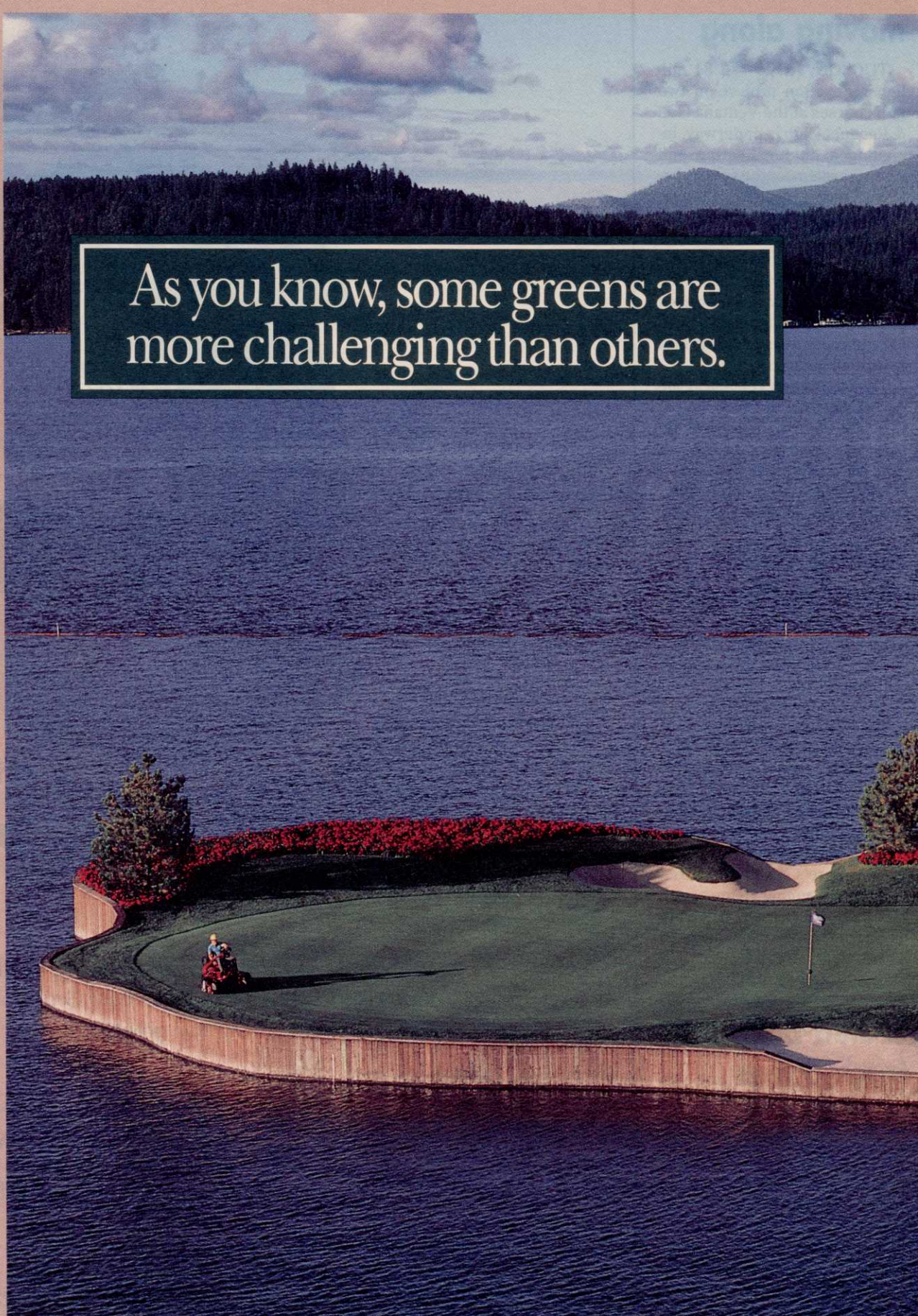
The city is building a lakeside range at Frear Park golf course. Crews will build six driving stations directed toward a lake filled with unusual distance markers. The 100-yard marker will be a lily pad, a mock boat will mark 150 yards, and a basketball hoop 200 yards. The floating golf balls weigh about 90 percent of a regular ball.

## Opponents call for JAL boycott

SOUTH KONA, Hawaii — The Global Network for Anti-Golf Course Action and a group of Hawaiian residents have called for a boycott of Japan Airlines (JAL) to protest the airline's funding of a golf course development here.

South Kona residents claim building a 27-hole, 1,500-acre golf course development will destroy local agriculture and force many people to move.

JAL said the land has not been fertile for 150 years and the company plans to improve topsoil and add irrigation systems.



As you know, some greens are more challenging than others.

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# PALMER ACQUIRES FIRST COURSE IN NORTHEAST

BUFFALO, N.Y. — Arnold Palmer Golf Management Company has purchased Brierwood Country Club in Buffalo, N.Y. Brierwood is the first of several planned acquisitions in the Northeast. Brierwood is considered one of the most challenging courses in western New York and the focal point of a \$150 million, master-planned community being developed by the E. F. Burke Company. It includes an 18-hole course and 84,000-square-foot clubhouse.

# Kentucky strip mine reclaimed for golf course

JENKINS, Ky. — When a coal company turned a local country club into a strip mine, most area residents thought that was the end of golf at the site, despite promises that a golf course would eventually be built.

Two years later, a new \$1.5 million nine-hole public golf course has indeed emerged from the mining rubble. Raven Rock Golf Course, one of the few public-access courses in Eastern Kentucky, opened in late spring thanks to the efforts of the Pike-Letcher Land Co.

Parts of the strip mine were incorporated into the design. Golf carts travel up the side of

an old hollow fill, a valley where bulldozers once dumped soil disturbed by mining. Old silt ponds which once collected muddy water are now water hazards.

Raven Rock is apparently only the second golf course built on a former strip mine. As a general rule, coal companies reclaim sites by sowing grass for pasture land. This process is far less expensive than building a golf course at the site.

In Eastern Kentucky, once-mined areas have also been converted into airports and residential housing developments.

# Eisenhower

Continued from page 3

grounds themselves were designed originally by Thomas Jefferson, and redesigned by the Olmstead brothers. They maintain this as a curator does a museum. It's a living museum, not just a building. It's the only head of state's home in the world that the people go through every day.

"It has a jogging track, a tennis court, a children's garden, a swimming pool, bowling alleys, all sorts of different sports that Americans enjoy. So why shouldn't it have a putting green if presidents play golf?"

The fact some presidents don't golf, and others who do haven't remained in office terribly long, explains the troubled past of the Eisenhower green. Of course, Ike was an avid golfer, had it built and kept it. "It remained in place during Kennedy's time and Kennedy used it a bit," Jones said. "[Lyndon Baines] Johnson didn't use it. When [Richard] Nixon came into office, for some reason around 1972 the green was bulldozed. The story goes that David and Julie Eisenhower, during a visit, went out to putt on the green and it was gone. It turned out that while Nixon was away for a weekend H.R. Haldemann had it removed.

"Ford wanted to restore it, but he had too short a time [in office]. My father [Robert Trent Jones Sr.], brother [Rees] and I went by there one afternoon to look at it and help him in 1975. But it didn't come to pass. Carter was a tennis player; he didn't care. Reagan was noncommittal; he dabbled in golf for political reasons. Bush wanted to restore it, but instead put in a plastic miniature golf putting surface, which is there but not in the same location."

Along came Clinton and, Jones said, therein lies "the wonderful news that the White House is honoring the game of golf during its centennial year by restoring the Eisenhower putting green. The game is flourishing and our president acknowledges it."

Jones and crew restored the green as faithfully as possible, using old pictures. "With one exception," Jones said, explaining that Clinton opted not to include the small bunker that once sat next to the green.

"Our assistance from the USGA and Glenn Smickley has been spectacular," said White House Chief Usher Gary Walters, under whose charge the National Park Service cares for the grounds. "Glenn is giving us a real lesson, donating his time and expertise in advising and counseling us how to maintain, manicure and grow this green."

"It's like taking care of a baby in diapers," said Groundkeeper Manager Dale Haney. Haney's immediate superior, Executive Grounds Superintendent Irv Williams, might be able to relate to Haney's feelings. Williams worked at the White House when Ike had the green built. History, indeed, has repeated itself.

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CIRCLE #107



# Dye, Dedman the perfect match for Golf Course Expo



Hal Phillips,  
editor

The funny thing about Pete Dye — who, along with his family, will keynote Day I of Golf Course Expo on Nov. 9 — is that almost everything that's been said about him (and there's been quite a bit) is patently false.

First of all, his given name is Paul, not Pete.

Second, he is routinely termed a "radical" designer, yet the great preponderance of his so-called innovations — plank-faced bunkers, elevated greens with closely shaved approaches, pot bunkering and island greens — have been long-standing features on "traditional" British courses for 150 years.

Pete is often chided for being too macho, for making his courses too heroic and needlessly difficult... First of all, he designs courses with his wife, Alice. How macho is that? Further, he and Alice have pioneered the idea that courses should be designed to include multiple tees so that anyone, of virtually any skill level, can play them. Indeed, the TPC at Sawgrass, with the exception of the knee-knocking 17th, is very playable and forgiving from the middle tees.

The elder Dye has also been tagged with a big-budget label; one who moves lots of dirt and spends lots of the developer's money. Well, close scrutiny would show that Pete's fees are often a fraction of what some big-name architects charge. His early designs were very modest and many of his masterpieces — Blackwolf Run, Casa de Campo, Kingsmill, PGA West, Harbour Town, Eagle Creek, The Ocean Course and Kearney Hill Links, among others — while high-end, remain open to the public. Indeed, his sons, Perry and P.B., have made their careers catering to the ever-growing numbers of municipal and daily-fee developers.

The Dyes' interest in public-access golf makes them a perfect match for Golf Course Expo, the only national trade show and conference for daily-fee, resort and municipal golf facilities.

One thing that does hold true about Pete? He doesn't do a lot of public speaking, which is why we're so pleased to have him at the Expo. I did hear him speak at a Golf Course Builders Association of America (GCBA) function a few years back. After paying hilarious tribute to his friend, Joe Jemsek — jumping

Continued on page 32

# Committed, influential Foys? Florida is blessed with two

In Golf Nation each state should have its hero-heroine-wunderkind. Florida is blessed with several, but one who stands out this month is Shelly Foy, secretary at the U.S. Golf Association Green Section's Florida Region and wife of its director, John Foy. Every time I turned around the last few weeks, someone mentioned Shelly Foy. It was Shelly and the helicopter drop... Shelly and the Audubon Cooperative Sanctuary Program (ACSP)... Shelly and the School Program... Shelly and the Hobe Sound Women's Club...

So I called Shelly. Call it curiosity.

Why, and how, can she devote so much time and effort into advancing the public awareness that golf and the environment are co-friendly?

"I've been in this job 10 years; these people [superintendents] are like family to me," Shelly said. "And I'm tired of seeing my friends take a beating in the media."

The solution is to get the word to The People that men and women who care for golf courses are true environmentalists. As stated by the Treasure Coast GCSA: "At a time when the entire industry is struggling against misinformation and half-truths, disseminated by ill-informed sources, it's very important that we publicly draw attention to our case so that the general public ... can see how environmentally sensitive and aware our industry really is."

Testament to this comes from the thousands of superintendents involved in the ACSP, Audubon Signature and Audubon Heritage programs. Add the new Schools Program, sponsored by the Golf Course Superintendents Association of America (GCSAA), and the Backyard Program and "it goes full circle in your community," Shelly said.

In Martin County, where she lives, all but two or three schools will belong to the School Program by August, she said. Although the GCSAA has just signed on to sponsor that program nationally, the Florida GCSA has been active in it for 1-1/2 years.

The Treasure Coast's Blue Pearl (that's what the earth looks like from outer space) Charity Tournament last year raised \$10,000 for a wildlife hospital and this May earned \$10,000 for the School Program. That's enough to adopt 10 schools and provide them with reference materials and supplies for environmental projects. The North Florida GCSA is about to adopt five



Mark Leslie,  
managing editor

schools, Shelly said. And the beat goes on.

"It's a great educational tool for the students and teachers, and for their [FGCSA] members," Shelly said.

Ohhh, the helicopter drop? With the help of Greg Norman's helicopter, the Hobe Sound Women's Club raised \$3,000 for the Schools Program and \$3,000 for scholarships by selling golf balls at \$10 apiece, numbering the balls, and dropping them from the helicopter, with the owner of the closest ball to the cup winning \$1,000.

Held in conjunction with the Blue Pearl Tournament, \$13,000 was raised in one day to educate the public on the environment.

Will the helicopter drop be an annual event? "Any time you can find a fundraiser that's fun for everyone, keep it," Shelly advised.

Now, she and friends want to create a statewide resource committee for the Audubon program, disseminating helpful information. This is an idea supported by Green Section National Director Jim Snow, who said: "We will work on the idea of state coordinators. We will probably try it out."

Continued on next page

## Letters

### SOD VS. SEED, PART MCV11

To the editor:

I hesitate to take exception with anything in your usually fine publication, but the June article (page 26) claiming, "Seed vs. sod equals 'huge cost savings' for superintendents," is incomplete at best, inaccurate at worst.

Golf course builders, owners and superintendents are proving what bankers have known for centuries. The return on investment is more critical than initial cost. No one can argue that 50 pounds of seed costs less than a pallet of sod. But neither can anyone play golf on that bag of seed. It will take many months and thousands of dollars of additional input costs for that seed to reach the turfgrass sod's delivered level of maturity. The sodded course will open earlier, have greater player appeal, and play better while it provides the owners a faster return on their investment.

For example, let's agree it will cost \$300,000 more to sod than seed a course. If the sodded course opens just 60 days earlier, with only 100 rounds a day at even \$50 per round, the entire investment is recovered. In reality, there probably won't be a \$300,000 sod vs. seed cost spread; the sodded course will

open more than 60 days ahead of a seeded one; there will be more than 100 rounds played every day and \$50 per round may be low. The sod cost will be recovered very quickly and continue to be more profitable than a seeded course.

In addition to the direct cost/investment return comparisons that favor sodding an entire course, there are other cost and environmental benefits such as less watering, fewer chemicals, virtually no patching of wash-outs and less equipment damage.

As far as the sod/soil interface concern raised by one of the seed salesmen your article quoted, millions of square yards of sod, installed on hundreds of thousands of sites every year, prove that's not a real problem for a homeowner, let alone a professional golf course superintendent. As someone once said, "The sweetness of low price too often becomes the sour taste of mis-spent money."

We trust your readers will look beyond the initial price of seed and realize the vast potential available to them through sodding.

Douglas H. Fender, CAE  
Executive Director

Turf Producers International  
Ed. In the context of our story — that is, establishing a playing

surface — seed is cheaper than sod. However, as Mr. Fender points out (and as Golf Course News has reported many times in the past), an earlier course opening means the earlier onset of cash flow. Obviously, seeding and sodding have their benefits and disadvantages. In the end, superintendents, owners and developers must decide between seed and sod based on their particular needs — most critically, how quickly the start-up debt need be recovered.

### TO GET IN TOUCH...

To the editor:

Thank you for the opportunity to share with your readers some of the examples and trends in cooperative marketing and purchasing that I have seen and been associated with recently [Guest Commentary, July 1995]. Strength in numbers does pay exponentially.

I inadvertently left out my phone and e-mail addresses when I sent in the material for the guest commentary. Thank you for running them.

Mike Tinkey  
National Golf Course  
Owners Association  
Mt. Pleasant, S.C.  
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# Audubon chief speaks out on Ocean Course debacle

The following letter has been reprinted here with permission of the author, Ronald Dodson, president of the Audubon Society of New York State.

**D**ear Vice President Gore: I write to you today because of an effort in which the Audubon Society of New York State (ASNY) has been involved during the past 12 months and because of your interest in the protection of the environment. During 1994, provisions of the Coastal Barrier Improvement Act (CBIA) led to the opportunity for ASNY to participate in the bidding process for the Ocean Course on Kiawah Island, S.C. The Ocean Course has received international recognition as the site of the 1991 Ryder Cup championship and because it is purported to be built in an environmentally sensitive manner.

ASNY is the creator of the Audubon Cooperative Sanctuary System (ACSS). Of the various program components of the ACSS, the golf program has been the most visible and successful. To date, over 1,600 golf courses in all 50 states and several other countries have joined this program. The golf program was created because of the large number of golf courses in existence,

the substantial number of acres and space utilized by courses, and the ASNY mission statement which is "to work toward the improvement in the quality of the environment by involving people in programs and projects that will benefit the quality of the environment." It is common knowledge that golf courses use chemical products and water in quantities that should be of concern. ASNY has developed the golf program to allow us to determine what that level of concern should be, and to offer alternatives to management of courses that will benefit the environment and wildlife.

Because of our programs and international experience with golf and the environment, Virginia Investment Trust (VIT) sought ASNY out in an effort to establish a "partnership" toward purchase of the Ocean Course, through the Resolution Trust Corp. (RTC) and in accordance with the provisions of the CBIA. A legal agreement was set in place between ASNY and VIT stipulating the terms of the partnership and the short-and long-term environmental conservation goals for the property. The financial and legal



Ronald Dodson

details of this agreement were received and approved by not only ASNY and VIT, but by RTC the Internal Revenue Service, independent auditors and others.

One area that was extremely important to ASNY was a provision which stated that, if the efforts that were

being made to acquire the Ocean Course failed, but in the future VIT "acquires an ownership interest in the Ocean Course either pursuant to the RTC's Ocean Course Purchase Agreement or otherwise, directly or indirectly, with any other person, entity or qualified organization participating in the auction," VIT agrees to provide a grant to ASNY to conduct a study of the course property. This study would result in a complete inventory of the habitats, flora and fauna of the course, and serve as the basis for establishing the long-term management of the course and surrounding environments.

During the entire process of developing the agreement, VIT expressed publicly how much they desired to work with ASNY. Both VIT and RTC expressed in the media how pleased they were to be doing something to protect the special environment on and around the Ocean Course. As a matter of fact, it was the CBIA that set into place the requirements under which the RTC was working with not-for-profits and governmental organizations to protect the Ocean Course in this manner.

In September 1994, ASNY was the lone high bidder for the Ocean Course. This set into motion a series of court hearings relative the bankruptcy of the Ocean Course, the RTC's attempt to sell it, and the contract that ASNY had signed with RTC. In the end, the Bankruptcy Court did not approve the sale because, in the 11th hour, RTC attempted to place two additional

restrictions on the operations of the course. The judge's ruling was based upon the belief that these two additional restrictions would cause the financial partners in the acquisition to fail to come forth with the funding for the purchase. So, months of work essentially went down the drain all because the RTC supposedly wanted to increase the conservation restrictions on the course even further than ASNY wanted to.

On May 18, 1995, the RTC went back to public bid for the Ocean Course. In this auction, VIT was the successful bidder. ASNY contacted VIT to congratulate them and to discuss plans for the court proceedings, closing date, and the commencement of the ASNY study period.

VIT has indicated that they do not wish to honor the terms of this agreement nor to work with ASNY.

ASNY finds it very interesting that the RTC did not follow the provisions as set forth by the CBIA for the most recent auction, but instead negotiated directly with for-profit entities. Now that the RTC has done this, VIT is attempting to renege on a contractual obligation with ASNY. We urge you to direct an immediate investigation of this sale, the motives of the RTC in regard to the apparent violation of CBIA provisions and any potential irregular connections between RTC and VIT in regard to this latest sale.

At present it is the position of ASNY that both ASNY and the CBIA were used and misused in regard to nothing more than a publicity campaign to acquire the course in the total interest of a private business and with actual disregard for the environment of the Ocean Course and the coastal environment of South Carolina. We are presently weighing our legal options, but in the meantime the proposed sale moves forward.

Ronald G. Dodson  
President and CEO  
Audubon Society of New York State  
Selkirk, N.Y.

## Leslie comment

Continued from previous page

Three cheers for this Foy of Florida!

We've got an Evans in Maine we'd like to clone, too. That's Kyle Evans, the superintendent at highly rated Waterville Country Club. Evans has taken up the call to public education, arming himself with an array of slides, stories and vast knowledge and speaking to various civic organizations and school audiences.

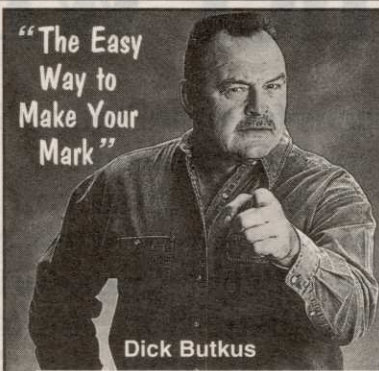
Hail to another one of my fellow Mainers, superintendent Dick Fahey of Poland Spring Country Club, for a great environmentally and financially sound idea. Fahey deals with cutworms in a way that eliminates an insecticide application. When they become a problem, he sends a headlight-equipped triplex out in the wee hours to chop up the worms while they are actively feeding.

Stop the impeachment! Odd that a couple of years ago Vice President Al Gore said sayonara to a Tom Fazio-designed putting green that had been installed at the behest of his predecessor, Dan Quayle. Now President Clinton has restored a green built for President Eisenhower in the 1950s. Guess our two top honchos will never be playing partners (see page 3)

As for his part, course architect (and, you'd think, political creature) Robert Trent Jones Jr., who oversaw the restoration, stayed out of the politics. Saying he donated his efforts not for the president but for "the peoples' home," Jones added: "It is a great honor. I've always been a dedicated public person. It's important for people to donate their time and energies whenever they can and in whatever public service they can. And in this case it was my pleasure to restore something that belongs at the White House."

Our Q&A subject for the month (see page 29), Ron Forse, a fan of the classic old-time designers, on controversial modern-time architect Pete Dye: "He is the best at making good golfers think. He's a genius."

Greg Norman reportedly has agreed to represent the Audubon Society of New York in public service announcements saying, roughly: "Golf is trying hard to do its part to protect the environment and preserve our resources. Schools and corporations, you should follow our lead. Join the Audubon Cooperative Sanctuary System."



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## BRIEFS



### NATURE'S CHOICE

PHOENIX, Ariz. — Nature's Choice is the theme of the 1995 Southwest Horticultural Trade Show at Phoenix Civic Plaza here, Sept. 7-8. The Cactus and Pine Golf Course Superintendents Association and Golf Course Superintendents Association of America will present educational sessions on the overall topic Turf Stress Management. More information is available from the Arizona Nursery Association at 1430 W. Broadway, Suite A125, Tempe, Ariz. 85282; 602-966-1610.

### NORTH OF THE BORDER

VANCOUVER, British Columbia — The Canadian Golf Superintendents Association (CGSA) will hold its 47th Turfgrass Conference and Trade Show at the Vancouver Trade and Convention Centre here, March 2-5. More information is available from Andrea Franks at CGSA, 5580 Explorer Dr., Suite 509, Mississauga, Ontario L4W 4Y1; 905-602-8873.

### BLEIER HIGHLIGHTS N.Y. CONCLAVE

ROCHESTER, N.Y. — Rocky Bleier, former Pittsburgh Steeler, will headline the four-day annual educational conference and trade show cosponsored by the New York State Turfgrass Association (NYSTA) and Cornell University. The keynote is scheduled for Nov. 8, at 9 a.m. As an added feature, pesticide recertification credits from several states and continuing education credits for national associations are available for conference attendance. For more information contact the NYSTA at 800-873-TURF or 518-783-1229.

### CONTAINMENT SYSTEM DESIGN

CLEVELAND, Ohio — Published by Advanstar Communications, "Containment System Design: Chemical Storage, Mixing and Recycling" by Fredric R. Haskett contains information that will allow operators to design and construct an affordable, viable and safe facility to store, handle, mix and recycle pesticides, fertilizers and other chemicals. It explains how to prepare for the scrutiny of government regulators and comply with new regulations; explores the legal implications of noncompliance; and discusses the cost of recycling finished product residues versus the cost of having them disposed of by an outside agency. Containment System Design costs \$74.95. Copies can be ordered by calling 1-800-598-6008.

GOLF COURSE NEWS

# Wildlife studies complement one another

Audubon investigating from the point of view of sustainable resources

By MARK LESLIE

SELKIRK, N.Y. — In fortuitous timing for an industry seeking wisdom about golf's environmental impact, the Audubon Society of New York (ASNY) is undertaking a wildlife study that dovetails with the U.S. Golf Association's (USGA) Wildlife Links program overseen by the National Fish and Wildlife Foundation.

"This came about at a fortunate time because I was in the process of instituting the Audubon Center for Sustainable Resource Management (ACSRM)," said ASNY President Ron Dodson.

Wildlife Links and ACSR

Continued on page 22



The impact of golf courses on deer and other wildlife is the subject of more intense study.

USGA-backed Wildlife Links using a more broad-brush approach

By MARK LESLIE

FAR HILLS, N.J. — The first fruits of the U.S. Golf Association-sponsored Wildlife Links Program will be two publications providing golf course superintendents hands-on information "to make their facilities more environmentally in-tune," according to USGA Green Section National Director Jim Snow.

Undergoing a name change from Nature Links because of a near-conflict with another group's program, Wildlife Links was birthed to promote courses as friendly homes for wildlife and to attract support from environ

Continued on page 22

## Experts urge aggressive defense vs. Lyme disease

RESEARCH TRIANGLE PARK, N.C. — Despite more than a decade of public awareness, the number of reported Lyme disease cases remains high, and some experts are now recommending a more aggressive approach for controlling the ticks that carry this potentially debilitating disease.

Many medical health-care experts and university extension offices now urge homeowners in high-risk areas to treat their lawns and lawn peripheries with an insecticide to reduce populations of the ticks which vector this disease. The primary vector of Lyme disease is the deer tick, also known as the black-legged tick.

Although ticks are most commonly found in wooded, overgrown and weedy areas, many Lyme disease victims are bitten by ticks in their own yards, and the use of protective clothing and insect repellent alone have not been successful in checking the spread of the disease. In 1994, more than 10,000 new cases of Lyme disease were reported in the United States, according to the national Centers For Disease Control (CDC). More than 57,000 cases of Lyme disease have been reported since recording of these cases first began (1982-1993).

In high-risk areas, such as the Northeast coastal states, North Central states

and parts of the West Coast, an application of a commonly used home insecticide can help reduce deer tick nymphs and adults in home lawns and lawn peripheries by up to 95 percent.

Although symptoms are sometimes absent, Lyme disease is usually initially characterized by the presence of a bull's-eye shaped rash at the site of the tick bite, followed by fever, headache, fatigue and pain in the muscles and joints. Although it is treatable with antibiotics, if left untreated, the disease may result in double vision, chronic arthritis, meningitis, hearing loss, cardiac problems, memory loss

Continued on page 21

## No Dutch treat for elm lovers

By DAVID M. ROSE

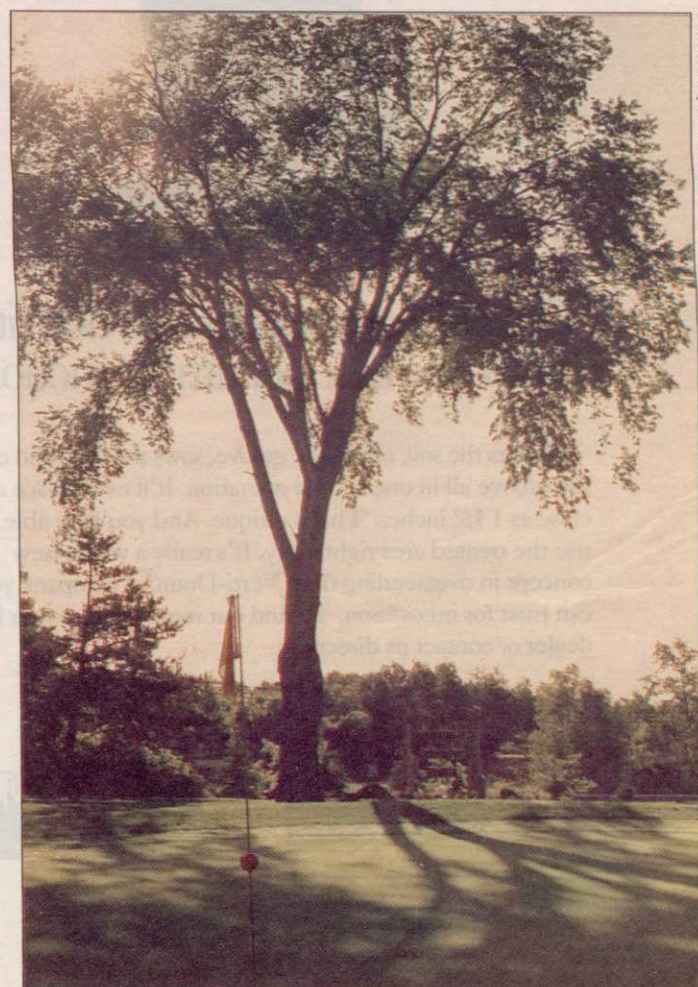
GROSSE POINTE FARMS, Mich. — In the early part of this century, golfers teeing off here at the Country Club of Detroit enjoyed the shade and splendor of more than 3,000 stately American elms. Today, all but 300 are gone, victims of the deadly Dutch elm disease. Sadly, the situation in Detroit is by no means unique.

Introduced to the United States in shipments of contaminated logs in the 1920s, *Ceratocystis ulmi*, the fungus that causes Dutch elm disease, has reduced the North American elm population by 50 to 80 percent over the last 75 years. But while there is still no sure-fire cure for Dutch elm disease, newly developed fungicides and disease-resistant elm varieties are beginning to turn the tide.

To understand the options for dealing with Dutch elm disease, it is necessary to understand the life cycle of the fungus. Fungal spores are carried to the tree by the elm bark beetle, which feeds on tender new shoots and bark. Once inside, the fungus invades the xylem, the water-carrying vessels of the tree. As the fungus proliferates, the xylem becomes blocked, resulting in wilting, yellowed leaves, and death.

For superintendents hoping to vanquish Dutch elm disease, the approaches are basically three: kill the bark beetle, kill the fungus itself, or plant elms that are less susceptible to the fungus' lethal effects. The most common means of controlling bark beetles is treatment with the pesticide Methoxychlor. The Elm Research Institute (ERI) of Harrisville, N.H., a non-profit institution dedicated to the preservation of the American elm, recommends trees be sprayed prior to leaf emergence each year. By heading off the annual influx of hungry bark beetles, according to ERI,

Continued on page 18



Elm trees like this one used to be much more bountiful on America's golf courses.

Photo courtesy of Elm Research Institute



# Priest euphoric in 'game I love' as he grows in Zoeller track

CABLE, Ohio — "Supervising a top-notch golf course is not a nine-to-five job; it's an obsession for perfection which lasts 10 to 12 hours a day, seven days a week," says Tom Priest. That attitude is perhaps the reason Beaver Creek Golf Club, under



Tom Priest

construction here, has hired Priest as golf course superintendent, persuading him to leave Zanesville, where he headed up maintenance at one of the top three public courses in

the United States, Eaglesticks. "My love for the game of golf makes this the perfect occupation for me," Priest said. "And coming to Beaver Creek, which has the potential and credentials to open as the number-one public course in the country, is a dream come true."

A scratch golfer with 14 years of



The 18th hole at the Fuzzy Zoeller-designed Beaver Creek.

greens maintenance experience, Priest held management positions with Wyandot Golf Course and Bent Trent Golf Club in Columbus as well as Tournament Players Club at Sawgrass in Florida.

"With Tom's experience and proven track record, we wanted him involved with Beaver Creek from 'dirt' — the very beginning," said the club's developer Bill Parker, president of Midwest Golf Group. "Despite the bad weather recently, we've been able to keep course construction on schedule. Tom Priest's presence will ensure we open next summer with nothing less than perfection."

Priest is consulting with the course designer, PGA Tour pro Fuzzy Zoeller,

and architect Brian Huntley, on irrigation and other issues. Seeding of the 7,000-yard track will begin in August or September, and it is expected to open next June.

"When you come in after grow-in you see things that could have been changed," Priest said. "If you need a triple-row of irrigation heads instead of a double-row, that sort of thing can be done. With the architect not being on site every day, and me being an avid golfer, I can see if we need a tee block or bunker raised or lowered. I make that move and it makes Fuzzy's and Brian's job that much easier."

Maintaining a golf course after it is



grown in is actually more difficult than growing it in, Priest said. "The grow-in, to me, is the simplest part of all. It's a lot of long hours. You never let your guard down. You're always double- and triple-checking."

What can go wrong? "Mother nature is your worst enemy. Once you're up and seeded, you've got young grass that is vulnerable to gully-washers and to Pythium diseases. Personally, drought would be the best thing for grow-in."

Priest employs a unique method to effectively manage his courses. Besides an assistant and equipment technician, he will add nine employees to Beaver Creek's grounds crew, and each person will be given charge of two holes for the year. "Therefore, there is no discrepancy about who was supposed to do this or that job. It's really quite amazing how much work you can get done when you send nine guys out there and specify the jobs to do that day."

"Then, I give a monthly bonus to the guys I think did the best job. If you have

Continued on next page



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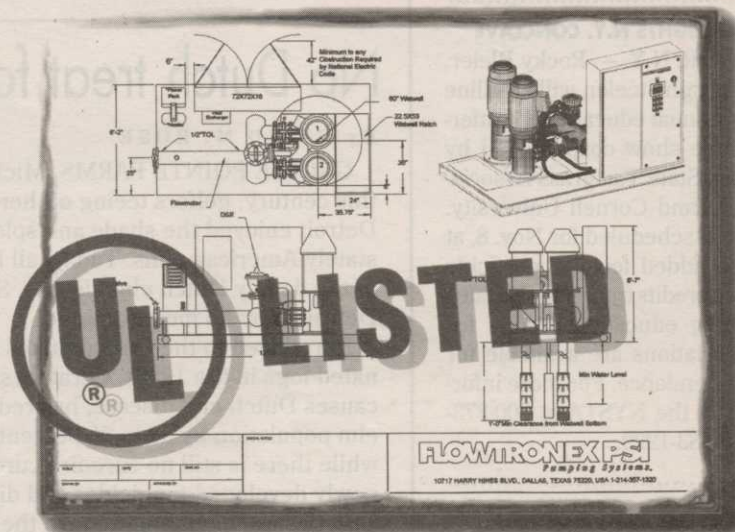
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CIRCLE #111

GOLF COURSE NEWS



# NIGHT CREATURES

## UKentucky researchers delve into life of black cutworms

By MICHAEL KENNA

Dr. Dan Potter and graduate student Chris Williamson of the University of Kentucky have been examining and probing putting greens at all hours to discover more about the behavior of black cutworms.

These thick-bodied caterpillars are from 1 to 2 inches long when fully grown. The night-flying, female adult moths, with a wing span of 1-1/4 to 1-1/2 inches, lay eggs on grasses. Larvae feed at night and hide in holes, under debris, or in the thatch and soil surface of the ground during the day. Breeding continues throughout the warm months of the year, and there may be several generations per season.

One of the experiments determined the behavioral response of larval cutworms to aerification and/or top dressing. Half of each plot received a different treatment, such as aerified or not aerified, with or without sand top dressing. The two management regimes, or "choices," were enclosed with galvanized steel driven into the bentgrass green.

Thirty cutworms were added to each enclosure and could choose the turf featuring either management treatment. After the cutworms were allowed to establish burrows in the turf, a soap drench was used to bring them back to the surface. The number of cutworms choosing each management regime, and the proportion occupying aerification holes was determined.

Contrary to their expectations, Potter and Williamson found the cutworms showed no preference between aerified and non-aerified areas in the green. This was also true when both aerified

and non-aerified areas were top dressed with sand. However, of those cutworms that became established in the aerified plots without top dressing, 61 percent were in the aerification holes. When aerified plots were top dressed with sand, the cutworms preferred the non-aerified, non-top dressed turf. Cutworms also preferred plots that were aerified only over those that were both aerified and top dressed.

Potter and Williamson also

documented where the female moths lay their eggs and how routine mowing affects egg distribution. Greenhouses and field studies indicate that a single egg is laid on the terminal end of bentgrass leaves mowed at 1/8 or 3/16 inch, or not mowed at all. More important, mowing removed 90 and 81 percent of the eggs laid on the 1/8- and 3/16-inch high bentgrass, respectively. They concluded that most of the eggs laid on golf greens

are mechanically removed by normal mowing practices.

If cutworm eggs are removed by mowing, then where do the cutworms found on greens come from?

Potter and Williamson believe the cutworms migrate from the higher mowed turf areas on the putting greens during the night. Their research efforts this year will focus on the number and size of cutworms that invade putting green turf from the surrounds. If



this type of migration actually occurs, then a reduced amount of insecticide could be used on smaller larvae hatching in the green surrounds. Until then, remember to fill those aerification holes with sand top dressing!

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## Tom Priest

Continued from previous page

three or four guys doing well, we have a pizza party for everybody. If you get that person involved, those are 'his' holes."

A native of Johnstown, Ohio, Priest played in two U.S. Open qualifying rounds. He feels superintendents should golf. When they do, he said, they see the course from a player's standpoint. "You spot things that can speed up play and get the golfers around and make it as simple as you can for everybody."

"My theory is that the course should be the same condition every day, whether Fuzzy's here playing or some guy is coming out and paying \$45 green fees."

A nine-year member of the Golf Course Superintendents Association of America as well as its Central Ohio chapter, Priest plans to move with his wife and two children here in the coming year.



## ONE MORE WEAPON

# Portland CC'S Porter modifies unit into side-dumping work-saver

By J. BARRY MOTHES

PORTLAND, Maine — It was during a major overhaul of Portland Country Club's irrigation system that grounds staffer Ron Porter started thinking about the potential benefits of a side-dumping utility vehicle.

"With all the trenches we had to fill, we just kept backing up and dumping, backing up and dumping," said Porter. "It seemed to me that it would be

a heck of a lot easier if we could dump sideways."

Porter teamed up with fellow grounds crew staffer Mike Poole and shop mechanic Dave Pellerin to build and install a new bed and rear-range the existing hydraulics to transform a 4-wheel 1980



ON THE GREEN

back-dumping Cushman into a side-dumping vehicle that has been something of a lifesaver for the crew and an ingenious little step forward for golf course

maintenance.

Porter and his PCC staff mates began their quest for perfect side-dumping by

lengthening the chassis on the modified 4-wheel Cushman by a foot to accommodate the special body they wanted. They also increased the tire size from 18- by 9.5- 8-inch to 22-inch by 11-8-inch.

They then built a special new, heavy-duty bed from supplier stock that created all sorts of dumping and carrying options. There's a small levered "sand door" within the back door of the bed and a

hinged door on the driver's side. All three sides of the bed can be removed to create a simple flat bed.

In order to get the side-dumping feature, they built a new base frame and added hinge points positioned parallel with the sides. This allows them to change the position of the hydraulic cylinder that raises and lowers the bed. The custom-built frame also still has the conventional front and back hinge points for back-dumping.

As anyone who has worked on a golf course knows, a side-dumping vehicle can make many common, everyday tasks of golf course work easier and make small crews more efficient. Side-dumping is particularly helpful for sand trap and trench work and allows the driver a better look at what's being dumped for projects requiring a finer touch.

In fact, some jobs that might require two people with only a back-dumping feature can sometimes become a one-person job. And, in less than a half hour, the cylinder can be repositioned to the conventional

*A side-dumping vehicle can make many common, everyday tasks of golf course work easier and make small crews more efficient.*

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hinge points for back dumping. Porter, 52, worked for nearly 30 years with a local truck equipment manufacturing company before joining the PCC grounds staff five years ago. Although in the past his projects involved "huge" pieces of equipment, he's quite happy with the results of this smaller-scale project.

"It's something I'm quite proud of and I'm thankful that Pat Lewis (PCC superintendent) had the faith in us to let us try it," Porter said. He added that through trial-and-error the PCC staff has found that a side-dumping bed does not work particularly well on a three-wheel vehicle which can be "tippy."

"I was surprised that somebody like Toro, as big as they are, hasn't really come up with the idea," said Porter, adding he would like to develop the idea further in the future. "You see it on trailers but not on smaller vehicles. I'm surprised some smart guy hasn't come up with something.

"I on-ly build things because I don't like manual labor. If there's an easier way to do it with a mach-ine, I'll find a way to do it."



# Curious about conspicuous colors? USGA has a handle on it

By TERRY BUCHEN

Yellow, not red, is the most conspicuous color, black the least, surveys show.

It was interesting to watch the recent U.S. Senior Open on television with the blue- and yellow-checked flag, the U.S. Golf Association Centennial logo in the center, mounted on an eight-foot yellow flagstick made of fiberglass.

A similar flag has been used the past two years on the Senior PGA Tour, only the flags are black- and yellow-checked and there usually is no logo.

"We tested the yellow-checked flag in 1993 for one year to see if the senior players could see it better, with the green background of the putting surface plus the many clothing colors of the gallery behind and on either side of the green. The players seemed to observe it better than a plain yellow flag, which is our tournament specs for the PGA and Nike Tours," said Allan MacCurrach, senior agronomist for all three tours.



This year's U.S. Senior Open used the yellow/blue checkered flag, with the USGA logo in the center, similar to the one shown below. Above is the checkered flag now used exclusively on the Senior PGA Tour.



"Prior to the checkered flags, we tested painting the bottom three to four feet of the yellow eight-foot fiberglass a black color to aid in depth perception for players, with mixed to good results. Since we tested the checkered flag, we have stayed with it exclusively the past two years and have not painted the bottom of the flagsticks anymore," MacCurrach added.

"Back in the 1970s we tested every possible flag and flagstick color combination and found that an eight-foot versus a seven-foot flagstick painted bright yellow was the easiest to see.

"The added one foot in height greatly added to a player's depth perception and also was easier to see with the gallery surrounding the putting surface."

## ANY COLOR, LONG AS IT'S BLACK

It is greatly appreciated that drainage grate manufacturers are increasingly making the plastic round, rectangular and square grates in the color black. Green is the standard color. They almost never blend in with the surround-

ing fairway or rough grass, which makes them quite conspicuous.

Superintendents who have "made the switch" to black-colored grates are quite pleased with the results, as they do not stand out very much and are aesthetically pleasing to the golfing elite. On the edges of asphalt cart paths, many superintendents are using black-colored channel drains immediately next to the path. They blend in exceedingly well, as well as being quite functional.

Channel drains that are used in

landscape maintenance are many times colored an earth-tone scheme to blend in better with mulch and bark of a similar color.

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low it up with a letter and photocopies that are pulled out of the files, specifically answering their questions.

Examples include sending tree and shrub spec sheets about transplanting, feeding, watering, perennial flower identification, color photocopies and growing recommendations, how to have the best home lawn on the block, etc.

The most fun aspect of this little extra effort is that the golfer is not expecting to receive

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## Tradition left behind in fight vs. elm disease

Continued from page 13

the chances that Dutch elm disease will gain a foothold are greatly reduced.

Not everyone agrees, however.

"We're getting away from the traditional concept of spraying for bark beetles," said Dr. Douglas Caldwell of Davy Tree Expert Co. Caldwell said the high concentrations of insecticide prescribed for large trees like elms pose potential exposure problems for workers, and could lead to liability due to drift. What's more, said Caldwell, elimination of bark beetles appears to be unnecessary as long as the fungus is attacked directly with the application of trunk-injected fungicides.

The most widely used fungicide is Arbotect, manufactured by Merck. Another fungicide, Lignasan, has been discontinued by DuPont, but its active ingredient is now available from ERI under the name Elm Fungicide. Both fungicides are applied via macro-injection, whereby a large hole is drilled in the base of the tree, a tank is fastened with a harness, and dilute fungicide is fed into the tree either by gravity or by low-pressure injection.

Alamo, a newer fungicide from Ciba Turf and Ornamental Products, is available in both macro and micro-injection formulas. The new micro-injection system consists of individual, self-contained units that are inserted in small holes drilled in a tree's flare roots.

After a light tap from a hammer, the units are pressurized and the fungicide (about 10 milliliters compared to the 10 gallons used in macro systems) is injected into the tree.

Once applied, "You can basically walk away from it," said Dr. Doug Houseworth, manager of technical support at Ciba, "whereas with the macro system you've got to baby-sit it." Company officials estimate the micro-injection units save six to seven hours of labor per tree over macro-injection methods.

All three fungicides are most effective when used as a preventive treatment.

In nationwide tests on more than 8,000 healthy trees treated with Elm Fungicide, according to ERI, less than two percent were lost to Dutch elm disease. Studies on Alamo conducted by Dr. R. Jay Stipes of Virginia Polytechnic Institute yielded similar results.

The fungicides can also be used to treat infected trees, provided the disease is caught early, typically when trees show 20 percent or less crown symptoms. Under these circumstances, ERI reports a success rate of 54 percent for Elm Fungicide.

Current research in Stipes' lab focuses on comparing the efficacy of micro- and macro-injection techniques, including how well the fungicide is transported through the tree and how long it remains active. While Stipes has not directly compared Alamo and other fungicides, he said he feels that Alamo does less damage to the tree itself. He reports having applied as much as six times the

Continued on next page

## Scientists attempting to improve friendly virus

New fungicides and resistant elm cultivars may make their job easier, but when it comes right down to it, arborists are still fighting the battle against Dutch elm disease the old-fashioned way: one tree at a time.

Is there any hope for a tactical strike that would wipe out Dutch elm disease altogether?

A cursory survey of the scientific literature reveals a possible answer in the December 1993 issue of the British magazine *Geographical*. It reported that scientists have isolated a naturally occurring virus that infects the Dutch elm fungus and significantly reduces its potential to cause disease. Efforts are underway to

tinker with the virus, making it more effective.

The ultimate goal is to release a fortified virus into the wild where, theoretically, it would spread quickly, taming the once-deadly fungus. This is an exciting prospect, but don't expect to see the virus on the shelf at the local garden center any time soon. While the concept is certainly intriguing and appears technologically feasible, much work remains to be done.

In addition, any modified virus is certain to face formidable regulatory hurdles, since federal regulations are notoriously — and, perhaps, appropriately — strict in cases involving genetic engineering.

— David M. Rose

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# Alonzi testifies: Tissue analysis saves turf and money

By PETER BLAIS

MAMARONECK, N.Y. — The 6th East green at Winged Foot was supposed to be a showpiece.

Over the years, the front of the putting surface had settled, creating a severe slope. Tom Fazio was called in to restore the green, reducing the grade and creating more pin placements.

But shortly after Fazio departed, problems arose. The front section of the green, which had required 15 inches of new soil in some places, started to

wilt and go under stress more easily than other greens.

Superintendent Robert Alonzi thought the 6th was probably percolating faster than his other putting surfaces and needed more water and fertilizer. He blamed it on the additional soil.

But coincidentally, shortly after completing the restoration, Alonzi started using tissue analysis. The Karsten Turf Analyzer showed the restored green to be very low in potassium and iron. Alonzi increased the feedings of

these materials and the green quickly returned to normal, rivaling the condition of any other putting surface at the famed Long Island club.

The \$29,000 Turf Analyzer is about the size of a small personal computer and interfaces with IBM-compatible PCs. Grass clippings are collected, washed, dried in a microwave and ground in a blender before being placed in the analyzer. Using near-infrared reflectance technology, it measures the levels of 11 ele-

ments essential to turfgrass growth. The whole process takes about 20 minutes.

Alonzi performs tissue analysis on specific areas on an every-other-week basis — greens and tees one week, fairways the next. Over the past two years, he has developed a baseline that helps him decide whether to increase or decrease fertilizer and other treatments.

"It's another tool for the superintendent," Alonzi said. "It doesn't tell you to go out and



feed the grass this material or that material. It gives you a reference point from which to work."

Alonzi said the analyzer has allowed him to reduce overall pesticide use while providing information that allows him to effectively adjust fertilizer applications to materials with needed micronutrient levels.

"In the long term, it's worth the cost," said Alonzi. "We spend that much on a single piece of maintenance equipment. If a club couldn't afford it then it might be worth contacting a lab with an analyzer that could perform the test for a fee two or three times a month."

Karsten Turf General Manager Ernest "Buck" Menendez said roughly 30 courses have purchased the unit since it was first introduced in 1991. Many of those have been 36-hole facilities or management companies that can share the equipment among several courses.

"It's an expensive piece of equipment," Menendez conceded. "But fertility management is a concept that's gaining steam. If this helps superintendents maintain their turf through stress periods, then it's a good investment."

## Elm disease battle

Continued from previous page  
recommended dosage but still sees no toxicity.

As effective as fungicide treatment appears to be, it is only a partial solution. The residual period for fungicide treatments is typically one to two years, and constant vigilance is required to protect existing elms.

Another approach that may provide more lasting relief from the ravages of Dutch elm disease is the development of disease-resistant varieties of American elm. To this end, ERI has developed the American Liberty elm.

Working in conjunction with the Boy Scouts of America, ERI has undertaken an aggressive distribution program to place the disease-resistant elm in communities throughout the United States. So far, the tree's resistance to Dutch elm disease is impressive: Of more than 250,000 trees planted in the United States and Canada, only 14 cases of Dutch elm disease have been reported.

Carey Mitchelson, superintendent at the Country Club of Hudson (Ohio), has planted some 50 elms as part of ERI's Liberty Tree Memorial Program. "They're upright and they have a vase shape, so you can put them fairly close as a hazard, giving a graceful appearance without detracting from the hole," said Mitchelson. "Architecturally, the elm tree is probably one of the most graceful trees you can put on a golf course."

## ER ONE THIS SEASON.



The worker ants take AMDRO back to the colony and feed it to the queen. The worker ants and the queen die, and the entire colony is eliminated — often in less than a week. And with baits like AMDRO, the colony won't relocate or satellite.

AMDRO is easy, because the worker ants do the killing for you. No other fire ant bait treatment works as fast and effectively to kill the mound. Which is why AMDRO is the undisputed market leader in fire ant control.

### IMAGE Herbicide: Control the Uncontrollable.

IMAGE gets to the roots of the most troublesome weeds in warm season turfgrasses. IMAGE controls previously uncontrollable summer weeds like purple and yellow nutsedge, field sandbur, and dollarweed, as well as

winter weeds like wild onion and garlic.

Attacking below the turf line, IMAGE inhibits protein synthesis in the root, so these pesky weeds starve and die. Which means it improves the IMAGE of your course — year round.

PENDULUM®, AMDRO® and IMAGE®. The professional's choice for top turf performance. They'll leave your course looking like a million bucks.

Available from quality distributors of turf products. For more information or for the name of the Cyanamid distributor nearest you, call 1-800-545-9525.





# National Fineleaf Fescue Test Results

Name	GA1	GA2	IA1	IL1	IL2	IL3	KS1	KY1	LA1	MA1	MD1	MD2	MI1	MO1	NE1	NJ1	OH1	OK1	PA1	UB1	VA1	WA1	WA3	WA4	WA5	WI1	WI2	Mean
<b>PST-44D</b> (ch)	4.5	3.4	6.6	5.9	7.1	4.3	5.7	7.4	4.6	5.9	5.8	6.7	5.8	7.3	5.7	4.6	6.5	4.6	7.0	6.5	4.7	6.2	5.5	6.3	5.8	6.7	6.7	<b>5.8</b>
* <b>Brittany</b> (ch)	4.7	3.6	5.6	6.0	6.5	5.2	5.8	7.8	4.9	5.8	5.7	6.5	6.0	6.9	5.5	5.2	6.3	4.5	5.3	6.3	4.7	6.0	5.3	5.0	5.0	6.5	6.8	<b>5.7</b>
<b>MB 64-93</b> (ch)	4.0	3.7	5.9	6.5	5.7	3.8	5.7	7.3	5.2	6.5	5.7	5.3	6.0	7.1	5.4	6.1	6.5	4.8	5.9	6.1	4.3	5.9	5.9	5.9	4.0	6.7	6.8	<b>5.7</b>
<b>PST-4VB Endo</b> (sc)	3.5	1.7	6.6	6.5	5.7	3.3	6.3	8.0	5.0	6.3	5.9	5.6	6.7	7.1	5.2	6.7	7.0	4.3	5.4	6.6	4.3	5.3	5.2	5.3	5.0	7.1	7.3	<b>5.7</b>
* <b>Discovery</b> (h)	3.9	2.6	5.6	5.8	5.3	5.3	5.3	7.6	4.1	5.6	5.9	4.9	5.0	7.2	7.0	5.9	7.2	5.5	6.0	7.0	4.9	4.9	4.7	5.6	6.1	6.7	6.8	<b>5.6</b>
<b>NJ F-93</b> (ch)	4.1	3.5	6.2	6.3	5.7	5.6	5.5	7.2	4.7	5.8	5.8	5.6	5.4	7.2	5.0	7.0	6.2	4.1	5.9	5.7	4.5	5.9	5.2	5.4	4.7	6.9	6.8	<b>5.6</b>
<b>MB 63-93</b> (ch)	4.5	3.7	5.9	6.1	5.8	3.8	5.7	7.2	5.0	6.5	5.8	4.2	6.1	6.6	6.3	4.9	6.5	4.4	5.8	6.0	4.4	5.8	5.3	5.6	5.2	7.1	7.3	<b>5.6</b>
<b>MB 61-93</b> (ch)	4.2	3.6	6.3	6.4	6.3	4.5	5.7	7.3	4.5	6.0	5.4	5.6	5.7	6.9	5.6	4.8	6.2	4.6	5.7	6.3	4.5	5.6	5.3	5.8	5.0	6.6	6.9	<b>5.6</b>
<b>Pick 4-91W</b> (ch)	4.3	3.5	6.6	6.2	6.5	3.9	5.5	7.5	4.7	5.5	5.9	6.8	5.7	7.1	5.5	6.4	6.3	4.0	6.2	5.8	4.9	5.7	4.8	5.1	4.4	6.3	6.1	<b>5.6</b>
* <b>Tiffany</b> (ch)	4.2	3.1	5.3	6.7	6.3	4.6	5.0	7.4	4.4	6.0	5.6	5.4	5.7	7.0	5.8	6.2	5.7	4.0	5.3	6.1	4.8	6.1	5.9	5.7	5.0	6.6	6.4	<b>5.6</b>
* <b>SR 5100</b> (ch)	4.3	4.2	6.5	6.2	6.2	5.1	5.2	7.3	5.1	5.7	6.0	6.7	5.3	7.1	4.8	3.1	6.0	4.6	5.6	6.0	4.5	5.6	5.6	4.4	5.5	6.6	6.4	<b>5.5</b>
* <b>Bridgeport</b> (ch)	4.6	4.5	5.2	6.6	5.7	3.6	5.6	7.3	5.2	5.7	5.4	6.5	5.7	7.2	5.3	4.6	6.3	4.6	6.1	5.5	4.4	5.7	5.3	5.4	4.4	6.6	6.3	<b>5.5</b>
<b>Pro 92/24</b> (h)	4.0	2.9	5.5	6.4	6.3	3.2	5.3	7.5	4.0	5.7	5.7	5.8	4.3	7.2	6.8	4.1	6.2	3.8	6.3	6.6	4.9	5.3	5.1	5.1	5.4	6.9	6.9	<b>5.5</b>
* <b>Treasure</b> (ch)	4.3	3.6	5.9	6.7	6.3	1.7	5.6	7.3	4.6	5.7	5.4	6.3	6.0	7.0	5.6	6.3	6.0	4.1	6.1	5.8	4.6	6.1	5.1	5.1	5.2	6.2	6.0	<b>5.5</b>
* <b>Shademaster II</b> (sc)	3.1	1.6	6.3	6.0	6.2	4.3	5.9	7.5	4.8	6.0	5.6	5.3	6.8	7.4	5.6	5.9	6.5	3.8	5.5	6.5	3.9	6.3	4.6	4.6	5.1	6.8	6.8	<b>5.5</b>
* <b>Seabreeze</b> (slc)	3.9	2.3	6.0	6.6	5.9	3.5	5.7	6.8	4.5	5.9	5.6	3.6	6.7	7.6	5.9	6.7	6.7	3.3	6.1	5.7	4.3	5.7	4.8	5.1	5.4	6.4	7.1	<b>5.5</b>
* <b>Reliant II</b> (h)	3.3	3.1	5.5	5.9	6.0	2.5	5.3	7.7	4.0	5.8	5.2	5.7	4.8	7.0	6.3	5.3	7.2	5.0	5.8	6.6	4.4	4.6	5.4	5.0	5.9	6.7	6.8	<b>5.4</b>
<b>MB 81-93</b> (h)	3.8	2.8	4.6	5.6	5.6	3.2	5.5	7.7	4.2	6.0	5.7	5.1	5.1	6.9	7.8	6.1	6.7	4.8	5.3	6.8	4.7	5.1	4.9	4.9	4.6	6.8	6.8	<b>5.4</b>
<b>PRO 92/20</b> (ch)	4.4	3.8	6.1	6.7	6.3	3.2	5.3	7.0	5.2	5.5	5.4	6.6	5.4	7.6	5.4	5.5	5.5	3.9	5.8	5.1	4.6	5.3	5.3	4.6	4.0	6.5	6.1	<b>5.4</b>
<b>PST-4DT</b> (sc)	3.3	1.6	6.2	7.1	5.7	3.7	6.0	7.9	4.2	5.7	5.4	4.3	6.7	7.1	5.6	5.9	6.5	4.3	5.1	5.8	3.8	5.3	5.7	5.2	4.9	6.7	6.9	<b>5.4</b>
* <b>Victory</b> (ch)	4.4	3.7	5.4	6.7	6.2	4.4	5.6	7.0	4.7	5.0	5.6	6.2	5.6	6.9	5.8	6.3	5.2	4.1	6.1	5.5	4.7	5.5	5.1	3.7	4.2	6.4	6.3	<b>5.4</b>
<b>MB 83-93</b> (h)	3.9	3.3	4.5	6.2	4.9	3.8	5.3	7.9	4.2	6.3	5.7	4.9	4.4	7.1	6.3	5.2	7.7	4.5	5.4	5.9	4.5	5.1	5.1	5.8	4.7	6.6	7.0	<b>5.4</b>
<b>WX3-FF54</b> (ch)	4.5	3.6	6.2	6.5	6.3	2.5	5.5	7.4	4.5	6.0	5.6	5.5	5.1	6.8	5.1	5.8	6.0	4.3	5.1	5.6	4.4	6.2	4.9	4.6	4.7	6.7	6.3	<b>5.4</b>
<b>PST-4ST</b> (sc)	4.1	1.6	6.1	6.9	6.2	4.7	4.9	7.7	4.9	5.9	5.6	5.0	6.4	7.0	5.8	3.0	6.7	4.0	4.6	6.5	4.1	6.1	5.0	4.4	4.9	6.8	6.8	<b>5.4</b>
<b>MB 65-93</b> (ch)	3.9	3.5	5.8	7.0	6.1	3.6	5.8	7.2	4.3	6.3	5.4	5.3	6.0	7.1	5.8	2.0	6.2	4.2	5.5	5.6	4.2	6.3	5.5	4.6	4.3	7.1	7.0	<b>5.4</b>
* <b>Jasper (E)</b> (sc)	4.3	2.0	6.4	5.5	5.5	2.7	5.8	7.5	4.1	5.8	5.4	5.3	6.0	7.3	6.3	7.0	6.5	4.2	4.7	6.0	4.1	5.1	5.4	4.9	4.8	6.4	6.4	<b>5.4</b>
<b>WX3-FFG6</b> (sc)	4.2	3.4	6.3	5.7	5.0	4.5	5.3	7.2	4.7	5.2	5.7	5.8	5.6	6.9	5.7	4.6	6.0	4.4	5.6	5.1	4.4	5.4	5.8	4.7	5.0	6.3	6.3	<b>5.4</b>
* <b>Nordic</b> (h)	4.0	3.1	4.6	6.2	5.3	1.9	5.5	6.9	4.3	5.6	5.6	5.2	4.9	7.1	7.0	6.4	7.3	4.0	5.3	6.9	4.8	4.5	4.8	5.1	4.5	6.7	7.0	<b>5.4</b>
<b>LSD Value</b>	<b>0.9</b>	<b>0.6</b>	<b>1.0</b>	<b>1.0</b>	<b>1.3</b>	<b>3.6</b>	<b>0.7</b>	<b>0.5</b>	<b>0.9</b>	<b>0.6</b>	<b>0.5</b>	<b>1.2</b>	<b>0.9</b>	<b>0.6</b>	<b>1.3</b>	<b>0.8</b>	<b>1.1</b>	<b>0.7</b>	<b>1.2</b>	<b>0.7</b>	<b>0.6</b>	<b>1.3</b>	<b>0.8</b>	<b>0.7</b>	<b>0.7</b>	<b>0.5</b>	<b>0.7</b>	<b>0.2</b>

\* — Commercially available in the U.S. in 1995.

(code) — ch = chewing fescue; sc = strong creeping fescue; slc = slender creeping fescue; h = hard fescue.

Here are the locations of the field tests, followed by soil texture, soil pH, pounds of nitrogen applied per 1,000 square feet, mowing height in inches and irrigation practiced.

GA1: Griffin (high pH), sandy clay loam, 5.6-6.0, 3.1-4.0, 1.1-1.5, no irrigation.

GA2: Griffin (low pH), sandy clay loam, 3.6-4.5, 3.1-4.0, 1.1-1.5, no irrigation.

IA1: Ames, Iowa, IA1: sandy clay loam, 7.1-7.5, 2.1-3.0, 2.6-3.0, to prevent stress.

IL1: Urbana, Ill., silt loam and silt, N/A, 0.0-1.0, 2.1-2.5, only during severe stress.

IL2: Carbondale, Ill. (low mowing), silty clay loam, 6.1-6.5, 3.1-4.0, 2.1-2.5, to prevent dormancy.

IL3: Carbondale, Ill. (high mowing), silty clay loam, 6.1-6.5, 1.1-2.0, 2.1-2.5, no irrigation.

KS1: Manhattan, Kan., silt loam and silt, 6.6-7.0, 3.1-4.0, 3.1-3.5, to prevent stress.

KY1: Lexington, Ky., silt loam and silt, 6.1-6.5, 2.1-3.0, 2.1-2.5, only during severe stress.

LA1: Baton Rouge, La., sandy loam, 5.6-6.0, 1.1-2.0, 2.1-2.5, only during severe stress.

MA1: Amherst, Mass., silt loam and silt, 5.6-6.0, 2.1-3.0, 1.6-2.0, to prevent stress.

MD1: Silver Spring, Md., silt loam and silt, 6.1-6.5, 1.1-2.0, 2.6-3.0, only during severe stress.

MD2: Sharpsburg, Md., silt loam and silt, 5.6-6.0, 0.0-1.0, 2.6-3.0, no irrigation.

MI1: East Lansing, Mich., sandy loam, 6.6-7.0, N/A, 1.6-2.0, to prevent stress.

MO1: Columbia, Mo., silt loam and silt, 6.1-6.5, 2.1-3.0, 2.1-2.5, to prevent stress.

NE1: Lincoln, Neb., silty clay loam, 6.6-7.0, 1.1-2.0, 2.6-3.0, to prevent stress.

NJ1: North Brunswick, N.J., sandy loam, 5.6-6.0, 5.1-6.0, 1.1-1.5, to prevent stress.

OH1: Columbus, Ohio, silty loam and silt, 7.6-8.5, 1.1-2.0, 2.1-2.5, to prevent stress.

OK1: Stillwater, Okla., silty clay loam, 6.6-7.0, 1.1-2.0, 2.1-2.5, to prevent stress.

PA1: University Park, Pa., silt loam and silt, 6.1-6.5, 1.1-2.0, 1.6-2.0, to prevent dormancy.

UB1: Beltsville, Md., silt loam and silt, 6.1-6.5, 1.1-2.0, 1.1-1.5, only during severe stress.

VA1: Blacksburg, Va., silt loam and silt, 6.1-6.5, 1.1-2.0, 2.1-2.5, only during severe stress.

WA1: Pullman, Wash., silt loam and silt, 5.6-6.0, 2.1-3.0, 1.6-2.0, to prevent stress.

WA3: Puyallup, Wash., (100% ET), sandy loam, 5.6-6.0, 2.1-3.0, 1.1-1.5, to prevent stress.

WA4: Puyallup, Wash., (30% ET), sandy loam, 5.6-6.0, 2.1-3.0, 1.1-1.5, only during severe stress.

WA5: Puyallup, Wash., (60% ET), sandy loam, 5.6-6.0, 2.1-3.0, 1.1-1.5, to prevent dormancy.

WI1: Madison, Wis., (high mowing), silt loam and silt, 6.6-7.0, 1.1-2.0, 2.6-3.0, to prevent stress.

WI2: Madison, Wis., (low mowing), sand, 4.6-5.5, 2.1-3.0, 0.6-1.0, to prevent stress.

## Fine fescues: Natural but not too wild ... lower-maintained ... striking

Continued from page 1  
leaf spot and rust.

"I think we will always have room to improve work on leaf spot and dollar spot," said Mike McCarthy, plant breeder and director of research for E.F. Burlingham & Sons. "We have made advancements in that area. That's why some from the previous trials rank as low as they do."

"One of the big factors [in the

improvement] is that we were spec'ing for a reduced plant height and also high endophyte levels," said Crystal Fricker, plant breeder at Pure Seed Testing, a sister company of Turf Seed, Inc.

Pure Seed and Turf Seed have four of the top 10 varieties in the test, while Burlingham has three, LESCO one Pickseed West one, and Rutgers University one.

"The interest [in fine fescues]

has increased quite a bit," said Kevin Morris, national director of NTEP. "People are looking at using them in low-maintenance areas and in mixes with bentgrasses... We need to start looking at mixtures — more and more blending them with Kentucky bluegrasses and fescues."

Fricker agreed much more work has been done on fine fescues the last 10 years. "The market isn't that great, but it's an interesting species to work with," she said. "And when you're collecting in old turf areas you always find new some fine fescues. So in our new collection we are coming up with a lot of new germplasm to evaluate and we are able to see a lot of differences and to select for a certain type of plant. That leads to a lot of improvement."

Fine fescues are becoming more popular among golf course superintendents as well, Fricker said. "You have the hard fescue look and letting it grow up edging bunkers. Fescues in some golf courses even in Southern California are just gorgeous. They are lower maintained but also something that's striking and different. It's a natural but not too wild a look."

"I think its use will grow as more people see and hear about them. Hard fescues are an under-used species at this time. The creeper is used by many because of its low price. But it's a gangly, tall grass. These fine fescues are beautiful, and give a Scottish links look."

McCarthy added: "We're getting a lot more discriminating buyers than we ever have had. It's a slow building process from research to ultimate user, the most informed being in the golf industry."

The future of fine fescues looks even brighter.

"We're looking for new sources of endophyte, and we're trying to incorporate new germplasm from new collections around the world," Fricker said. "The past varieties from our collection are mostly from around the United States. But we are collecting around the world on a wide scale, and are looking to incorporate some very different germplasm from high altitude to growing in rocky areas with no water, to actually surviving in wooded areas — some very extreme conditions. We want to find germplasm that naturally has characteristics we have to get into our varieties to make them the best."

McCarthy stressed improvement in density and taking advantage of fine fescues' ability to survive well in shade.

"Obviously, the strength of fine fescues is their shade component compared to ryegrasses and bluegrasses," he said. "They strengthen turf in those shady areas."

McCarthy added: "The leaf blade of the fine fescue is naturally fairly slender, so that isn't as big a factor as in tall fescue and ryegrasses. But the density you can maintain in the turf, without having a lot of disease prob-

### The Top 10

A brief look at the top 10 varieties of fine fescue in the 1993 national test shows only two holdovers from the 1990-93 test. Turf Seed, Inc.'s Discovery and Tiffany cultivars finished 3rd and 6th, respectively, in the old test and 5th and 10th this time around.

Turf Seed's sister company, Pure Seed Testing, also boasts the number-one variety — PST-44D, developed from material from Rutgers University Prof. Reed Funk — and No. 4 PST-4VD Endo.

The rest of the top 10:  
2) LESCO's Brittany.  
3) Burlingham's MB 64-93.  
6) Rutgers' NJ F-93.  
7) E.F. Burlingham's MB 63-93.  
8) Burlingham's MB 61-93.  
9) Pickseed West's PICK 4-91W.

lems that go along with it, is a very important factor for us to maintain."

Many of the top new varieties are not expected to be in the marketplace this year. But superintendents can expect them to be available in 1996.

Burlingham's MB series, for instance, is "just going into production right now," McCarthy said. "I would imagine it would be a year from this harvest before an appreciable amount would come out. After that, it will be readily available."

## Hot Spots?

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## OSU breaks ground on research facility

COLUMBUS, Ohio — The Ohio Turfgrass Foundation (OTF) has broken ground for a new Turfgrass Research Facility here on the Ohio State University main campus.

The 8,000-square foot building will serve as the focal point for research in the areas of agronomy, entomology and plant pathology in the state of Ohio.

The facility, funded largely by the Ohio Turfgrass Foundation,



is scheduled for an October completion date.

A crowd of more than 60 individuals attended the ceremony, which included comments from Doug Halterman,

a past president of OTF, Fred Bosch, president of OTF

Also, Dr. Luther Waters, chairman Ohio State Department of Horticulture and Crop Science, and Dr. Bobby Moser, vice president of agriculture and executive Dean of the College of Agriculture.

## Course design, construction seminar scheduled

DELHI, N.Y. — State University of New York-Delhi, the New York State Turfgrass Association (NYSTAP) and the state's superintendents associations will host a Golf Course Design and Construction Seminar at SUNY-Delhi, Aug. 8.

The 9 a.m. to 12:30 p.m. seminar will span topics from greens construction to irrigation, course-design basics and coordinating construction. Cornell University Dr. Norm Hummel will discuss how to use and interpret the U.S. Golf Association recommendations as they relate to specific green sites.

Paul Roche of S.V. Moffett Co. and Chris

Menno of CMI Systems Irrigation, Inc. will talk on how to determine water needs, pump requirements and irrigation design considerations.

Mike Haas of Haas Landscape Architects, Mike Ermisch of Ermisch Design Group and Larry Reistetter of Golf Design Group will present a step-by-step design process of an actual golf hole. Dominic Morales of SUNY-Delhi and Paul Young of Burton F. Clark Co. will discuss the logistics necessary for a successful construction project.

Tours will also be given of the Delhi College Golf Course expansion project. More information is available from NYSTA at 800-873-TURF.

## Lyme disease

Continued from page 13

and loss of muscle coordination.

Work continues toward the development of a Lyme disease vaccine, but until one is perfected, the following tips can help further reduce the chances of contracting the disease:

- Keep informed on the risk of Lyme disease in your area. Know how to prevent tick bites and be familiar with the symptoms of Lyme disease.

- During the summer months, when ticks are most active, wear light-colored clothing to make tiny deer ticks easier to notice.

- Tuck long pants into socks and wear long-sleeved shirts with tight-fitting cuffs and collars.

- Spray socks and shoes with an insect repellent containing permethrin and use an insect repellent containing DEET.

- Examine yourself thoroughly when returning from outdoor excursions. Remove attached ticks immediately with tweezers by grasping the tick's head as close to your skin as possible, and slowly pulling it straight out.

## Fescue choices

There are two major types of fescue grasses — fine and tall — and five varieties of fine fescues.

The fine fescues are:

- strong creeping fescue, which spreads and fills in well;
- slender creeping fescue, which creeps but not nearly as much as strong creeping;

- chewings fescue, which has more bunch-type growth;

- hard fescue, also with a bunch-type growth habit; and

- sheeps fescue, which is bluish-green.

Hard and sheep fescues are more tolerant to heat, so they perform better in the transition zone.

Fine fescues are finer textured than tall fescue. They also tend to live long in heavy shade and have a more natural look.

Tall fescues are quite different. Less attractive, they nevertheless work best in transition areas and the South, performing well in the shade. Their main attribute is tolerance of heat and summer stress.

GOLF COURSE NEWS

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# N.Y. Audubon launches environmental, agronomic service program

By MARK LESLIE

CARY, N.C. — The Audubon Society of New York State (ASNY) has launched a national conservation service program to provide environmental and agronomic services to members of its Audubon Cooperative Sanctuary System (ACSS).

Called Audubon Conservation Services (ACS), the program will "promote environmental land management and conservation of our natural resources through on-course education and services for ACSS-member golf courses," said ASNY President Ron Dodson.

"Every aspect of the ACS program will promote sustainable resource management objectives dedicated to maximizing the quality and playability of the golf courses while minimizing environmental exposure."

Using a team approach, it will deal with course management issues through environmental planning; wetlands, water-quality

and storm-water management; fertilizer and pesticide programs; and agronomic and environmental integration.

ACS will not compete with the U.S. Golf Association Green Section advisory services, Dodson said, because "we are going to be doing things they normally don't look at."

In fact, Green Section National Director Jim Snow, giving "100 percent endorsement" for ACS, has asked Audubon personnel to do "a training session for their people this fall," Dodson said. "We will develop a check list for their regional agronomists to use when they do their turf advisory visits. They will look for things that we are going to focus on, such as maintenance complex design, wash-down areas and pesticide storage."

The cornerstone of ACS is to provide technical leadership by professionals with agronomic and environmental experience

in golf course development and management. It will be led by senior scientist Dr. Miles (Bud) Smart and Dr. Charles H. Peacock. Each has more than 17 years of experience in his field.

Collectively, they have provided services at more than 100 golf course and land-use projects.

"We've essentially signed a unique partnership agreement with Charles and Bud," Dodson said. "Their Turf Science Group is a member service for the Audubon Cooperative Sanctuary Program. So when Charles and Bud and others do their work for a fee, they will be representing Audubon Society of New York."

"Additionally, doctorate-level scientists will provide expertise in areas of aquatic ecology, toxicology, risk assessment, environmental statistics and modeling, wetlands ecology, hydrology and remote sensing," Dodson said. "GCSAA-certified

superintendents will provide expertise on a regional basis."

The specific services ACS will offer are:

- Development of written plans for Integrated Pest Management and Best Management Practices (BMP) to develop an ecologically based approach to course management as well as incorporate BMPs to protect ecologically sensitive areas.

- Risk assessment to select the best materials for effective fertilization and control of pests in order to integrate sustainable resource management objectives.

- Constraints analysis for selection of pesticides and nutrients.

- Monitoring programs to develop systematic measures to assess golf course and environmental interactions.

The result, Dodson said, is a low-risk approach to golf course management and pesticide use.

## Audubon research: golf and wildlife

Continued from page 13

research will augment, rather than duplicate, one another, Dodson said, adding that the USGA Green Section supports the Audubon effort.

"Wildlife Links exclusively looks at wildlife on golf courses," he said. "We will look at that but many other things as well. We are revolving everything around sustainable management: plants, waste, technology, energy efficiency... We want [scientists] and others to look at our principles of sustainable resource management and see if they are adequate, if we have the answers to put these principles on paper and try to hold land developers to those standards."

"Wildlife Links is focusing on broad-brush wildlife and golf research projects. I'm interested in more long-term wildlife biology efforts. I want to know, for example, if there are songbirds nesting between fairways? Are they producing young birds? At what rate? How does that

rate compare to wildlife refuges and national parks that are managed with wildlife in mind?

"Wildlife Links will discover what kinds of birds are found, if amphibians are found, if there are more on wetlands than inland. I want to get into the biology of the critters."

Dr. Charles Peacock expects to take a sabbatical year off North Carolina State University in 1996 and volunteer as plant science research director, while Dr. Larry Woolbright of Siena College will assume duties as wildlife research director.

"Schuyler Meadows Golf Course here will serve as the home-base study course, and Siena as wildlife golf research center."

"We have seven research associates involved already, and we're not even off the ground," Dodson said.

The plan is that Peacock will perform a thorough literature review on what information is available, and write a book called Best Management Practices for Golf

*'Wildlife Links is focusing on broad-brush wildlife and golf research projects. I'm interested in more long-term wildlife biology efforts.'*

— Ron Dodson, ASNY president

Courses, which the USGA will sponsor.

The literature review will determine "what holes there may be in research as it relates to private landowners and golf courses," Dodson added. "My job is to get funding to make the research happen."

The ASNY mission is research, education and information exchange, Dodson said, adding that its personnel will conduct workshops and seminars, and share computer bases with government agencies and others to foster good decisions in finding and developing appropriate land.

ACSRM will be a mechanism to fulfill that mission, he said.

Meanwhile, ASNY officials are proceeding over the next 10 to 12 months to incor-

porate Audubon International Signature as a not-for-profit association that will become the parent organization of ASNY and its various programs. ASNY has hired zoologist Nancy Richardson to run the Signature Program from a technical point of view. Her office is at 2045 Alves Ferry Road, Henderson, Ky. 42420; 502-546-9419.

"We will put together a budget and have the opportunity for individuals, corporations, companies, associations to become sponsors of the Signature Program and of the Audubon International Center for Sustainable Resource Management," Dodson said. "Some of that money will be put toward research. We may have grants available and will be looking for research associates."

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## USGA links up with agencies

Continued from page 13

mental organizations. It grew out of USGA-funded research by Clemson University at Kiawah Island from 1991-93 that showed courses could indeed enhance wildlife.

The USGA has designated \$100,000 a year for the next three years for Wildlife Links, and the destination of those funds is being decided by a committee headed by Peter Stangel of the Fish and Wildlife Foundation and consisting of representatives from the U.S. Forest Service, Fish and Wildlife Service, International Association of Fish and Wildlife Agencies, the Audubon Society of New York (ASNY) and the Environmental Protection Agency.

"We decided to begin with publications," Snow said, "because they'd be tangible, you could put your hands on them, and they're badly needed. People are calling from all over the country with questions. These will be a source of answers."

One of the publications will focus on developing habitat for birds, specifying what type and how much land, what materials are needed to attract certain species. "This can be relevant for construction and existing courses," Snow said. "For instance, if you knew it would take 10 solid acres of forest for a certain bird, you could plan for that."

The second publication will concern how to enhance wetland areas. "Wetland here meaning ponds, streams and lakes as well as swampy areas," he said. "It will detail factors like kinds of vegetation that should be planted and the perimeter area around a pond to attract wildlife of different sorts; what kinds of plants you can add along the edge of the water to increase fish habitat or certain species of amphibians and reptiles; that sort of information."

Requests for proposals are expected to be sent out in mid-August. The advisory committee will evaluate the responses and decide which bidder to accept.

It will take a few months to write and publish, Snow said.

"These will be for superintendents and others like architects and consultants involved in getting permits for new construction. Anyone participating in the Audubon programs will want to have these," he said.

Long-range projects under Wildlife Links will be determined partly by how much is left after paying for the publications.

"We're working with Clemson and will probably fund a project with them," Snow said, adding that Clemson's golf course that is under construction will likely be a source of wildlife study.

An important factor to Wildlife Links, Snow added, is the involvement other wildlife specialists beyond ASNY — from government agencies and

other organizations.

"They're excited about it and so are we," he said. "We think it's important to broaden our scope of participation."

The USGA is "fully supportive of what they're (ASNY) doing" with its wildlife studies through its Audubon center for Sustainable Resource Management. "They're complementing what we're doing. They will cover a lot of things not covered in our program. And Wildlife Links is geared toward providing resource information helping superintendents go forward with the Audubon Cooperative Sanctuary Program.

## History and lore of Riviera GC is topic

"The Riviera Golf Course: A Triumph in Design," a new UCLA Extension seminar analyzing the work of golf course designer George C. Thomas Jr., will take place Friday, Aug. 4 at 6:30 p.m., at UCLA Extension on the Third Street Promenade, 1338 Third Street Promenade, Santa Monica. The fee is \$85.

This evening of golf history and lore takes place just prior to the start of the 1995 PGA Championship at Riviera Country Club. Scheduled guest speakers and panel members include golf course designers Tom Fazio and Dave Thomas, 1995 PGA Championship Gen-

eral Chairman Dick Caruso, and, from The Riviera staff, General Manager Peter Pino, Bill Baker, director of golf maintenance, and Historian Geoff Shakelford.

Rounding out the program are Bel-Air Country Club golf pro Ed Marrins, Los Angeles Country Club General Manager Jim Brewer, Los Angeles times sports writer Jim Murray, sports commentator Ben Wright, and landscape architects Tom Lockett and Alexis Slafer, head of the UCLA Extension Landscape Architecture Program.

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Professional Products Team



# Researchers see golf applications for subsurface drip irrigation

By PETER BLAIS

Subsurface drip irrigation of greens and tees could be the wave of the future, according to companies and researchers involved in the cutting edge technology.

"By the year 2000, water is going to be the major environmental issue for golf courses," predicted Karen Ferguson, vice president of Sausalito, Calif.-based Geoflow Inc., which has been in the drip irrigation business for 20 years. "Golf is an expensive business to get into. But in the next two years, we plan to go after it hard."

Geoflow is busily testing its subsurface grid of 1/2-inch drip line on turf plots in California, Texas and Hawaii. It has been installed on a green at Point Grey Golf Course in Vancouver, Canada,

and tees at the Mid-Ocean Club in Bermuda. Canyon Crest Country Club in Riverside, Calif., plans to install the system on a green sometime in the near future, according to superintendent Michael Rohwer. Netafim Irrigation Inc. of Fresno, Calif., recently installed its Techline subsurface drip system along a steep bunker face at the Country Club of Rochester (N.Y.), according to Regional Sales Manager Mike Stoll.

"The water from sprinklers was passing through the bunker and splashing sand on the faces," Stoll said. "We installed the system along with a moisture-sensing probe that checks moisture levels every 20 minutes and opens the water valve as needed. The goal is to not have to aim the sprin-

Continued on page 26

Research conducted on this plot at the Center for Irrigation Technology at California State University in Fresno, Calif., points to numerous golf course applications for subsurface irrigation.



An irrigation technician pulls in subsurface tubing with a vibratory plow.

## SyncroFlo ships 1,000th third-party tested unit

NORCROSS, Ga. — SyncroFlo has marked its 1,000th pump station to be shipped with third-party certification.

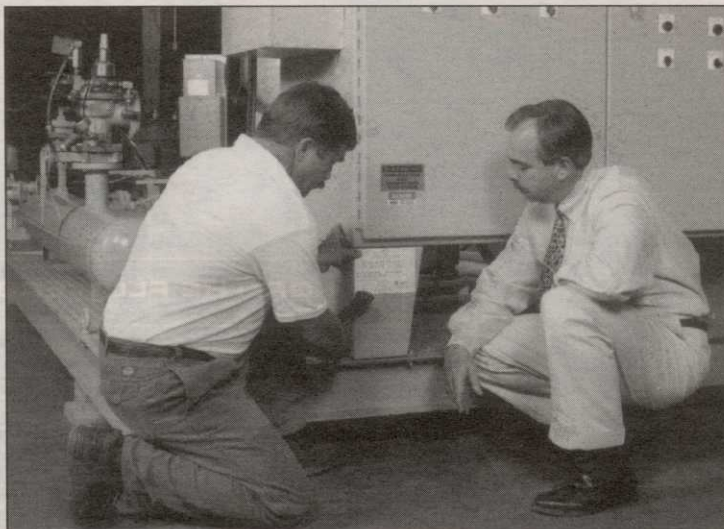
Third-party system certification is required by OSHA regulations. Compliance with these regulations lowers owner liability because operating and main-

### MARKET BRIEFS

tenance personnel are less likely to be injured since all safety and environmental protections are included. Course designers, specifiers and contractors are also protected by third-party certification should any job site accidents attempt to place liability elsewhere.

SyncroFlo first signed on to have its pump stations third party listed in October 1992. Since then, more than 1,000 pump stations have been produced under this certification.

Specifically, SyncroFlo system components are regularly evaluated by ETL to meet the following internationally accepted standards: ANSI/UL-778 water pumps; ANSI/UL-1004 electric motors; ANSI/UL-508 electric industrial control equipment; ANSI/ASME B73.1M-1990 and ANSI/ASME B73.2M-1990 hori-



Bob Clark, SyncroFlo field service technician (left), applies the third-party certification plaque, as SyncroFlo golf sales manager David Thrailkill looks on.

zontal-end suction or vertical inline centrifugal pumps for chemical process; ANSI/SAE J745-APR87 hydraulic-power pump test procedure; ASTM F336, vol. 09.02 gaskets for severe corrosive service; and ASTM G74, vol. 14.2 dynamic-pressure testing of O-rings.

For more information, contact SyncroFlo's David Thrailkill at 800-886-4443.

...

**GLENDORA, Calif.** — Rain Bird's Golf Division recently announced winners of The Freedom System Giveaway Contest.

The Freedom System is engineered to give golf course superintendents direct access and control over irrigation operations through a convenient handheld radio.

The six winners are:

- Manuel Delgado, Crystalline Country Club (Liano, Calif.)
- Robert K. Ellis, Indian River Club (Vero Beach, Fla.)
- Doug Falk, Indian Springs Golf Course (Litchfield, Mo.)
- Howard Hamaoa, Pearl Country Club (Aiea, Hawaii)
- Larry C. Hantle, Country

Continued on page 41

## Matching your course with the right pumping station

By DAVID B. BECK

A properly designed pump station responds to the water demands of an irrigation system with little hesitation and minimal fluctuation in pressure and power consumption.

Every golf course is unique in its pump station requirements. Site factors like elevation changes, the location and elevation of the water source relative to the pump station and total irrigated area shape the individuality of pumping systems. Down the line, the number and type of sprinkler heads, as well as variations in pipe type, sizing and routing help to more precisely define pumping needs. Finally, the way the individual irrigation systems are operated from course to course and season to season clarify site-specific pumping requirements.

When sizing a pump station, all operational and system characteristics must be analyzed and coordinated to calculate a maximum expected flow rate and total pressure requirement. Pump stations should meet, but not significantly exceed, the capacity needs of the course. Excess flow capacity is money spent on horsepower that's never used, while the pump station consumes more power than is actually required. This excess pressure also unnecessarily stresses other system components and can lead to failures later.

### Sizing for Pressure

Excessive pressure in piping can be as much a problem as inadequate pressure. High pressure, usually the result of a pump station elevated above the rest of the irrigation system, can exceed pipe, valve and sprinkler pressure capacities and create a hazard with quick-coupler connections at lower points on the course.

Position and pressure requirements of all turf heads on the course are needed to determine output from the pump station. It takes energy to move water uphill, and additional pressure must be provided for irrigation water to reach the highest locations on a course. Under static conditions, every 2.31-foot change in elevation equals 1 psi in pressure. If the mainline goes up 2.31 feet, pressure goes down 1 psi. If the main goes down 2.31 feet, pressure's up 1 psi. In extreme

Continued on page 27

David B. Beck is a professional engineer and the president of David B. Beck & Associates, Inc., a golf course irrigation design firm in Ann Arbor, Mich. Article courtesy of the Irrigation Association, Fairfax, Va.



## Rain Bird unveils 500/550 series

Rain Bird's Golf Division has introduced the newest addition to its line of Eagle gear-drive rotors — the 500/550 series.

Designed for use on tee boxes, approaches and small perimeter areas, the series offsets a combination of time-efficient irrigation and debris resistance.

Eagle 500 rotor models can make a 360-degree rotation in 60 seconds. The Model 550 can make a 180-degree turn in 30 seconds. The arc on the 550 is adjustable and can be set between 30 and 345 degrees.

Three high-performance interchangeable G Series nozzles help provide uniform water distribution in spacing from 20 to 50 feet. Constructed of rugged plastic, the closed-case design reduces the likelihood of dirt and other contaminants entering the internal mechanism.

The gear drive is water-lubricated, eliminating the risk of turf-damaging leaks often associated with oil-lubricated units. The design enables units to maintain performance standards when unfiltered effluent water is used.

Rotors can be used with higher-volume nozzles to syringe individual hot spots. For more information contact Rain Bird at 800-984-2255.

CIRCLE #309

## Toro's V-1550 series features new nozzle

RIVERSIDE, Calif. — The Irrigation Division of The Toro Co. has introduced the V-1550 Series sprinkler for medium to large commercial and residential applications.

The V-1550 features Toro's MultiMatrix nozzle with Trujectory. The MultiMatrix has a matrix design that sprays water simultaneously from up to seven uniquely engineered ports. A turn of the screwdriver sets the flow from 1 to 9 gallons per minute.

The Trujectory system adjusts the spray from 7 to 25 degrees without interrupting the water stream like old-fashioned radius-reduction screws. The V-1550 also features part-circle models with an arc adjustment range from 40 to 360 degrees. The flexibility of the V-1550 nozzle makes post-installation alterations simple. As landscape requirements change, the V-1550 changes along with them. Low-hanging branches, slopes and shaded areas are easily accommodated with a few easy adjustments.

All adjustments are made from the top of the sprinkler, wet or dry, using an ordinary screwdriver or coin. This reduces the time required to identify the nozzle in use and adjust to the desired setting. For more information contact The Toro Co. at 909-688-9221.

CIRCLE #308

## SyncroFlo updates pump software

SyncroFlo has added upgraded superintendent software for remote monitoring of its Eagle pump stations from a remotely located personal computer. The software displays full performance data, including flow rate, total gallons pumped, system pressure, set point and variable frequency drive (VFD) speed. The user can also set individual alarm presets.

A menu-driven display en-

ables the super to quickly obtain status of individual pump station components such as individual pump performance, VFD operation, speed control mode, and individual selector switch settings. The super software works with MS-DOS 3.0 or greater, MS-Windows or OS/2 and runs on any Intel-based computer. For more information, contact David Thrailkill at 800-886-4443.

CIRCLE #306

## Aquasaver product evaluates water needs

AquaSaver's new bioclimatic measuring device is capable of measuring the exact water needs of turfgrass to within 1/100th of an inch, accurately determining how much and when the precious liquid is needed.

The weather station-like device precisely measures the water vapor exiting the turfgrass canopy through evapo transpiration (ET), thereby telling the superintendent how much water plants are consuming and how much is needed to compensate.

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simply *estimate* rates with the aid of various corrective factors, such as crop coefficients, according to company literature.

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Inset photo: The Boulders Golf Resort; Phoenix, Arizona

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## Is subsurface irrigation the cutting edge?

Continued from page 26

kler heads into that area at all."

"We haven't gone strongly after the golf market, yet," added Netafim Director of Marketing Kurt Maloney. "But we think this can be very effective, particularly for irrigating rough areas with treated wastewater."

Geoflow's subsurface grids of PVC tubing are installed 6 to 8 inches below the turf's surface. The tubes are laid in rows 15 inches apart. Water reaches the roots through pinhead-sized openings in emitters spaced ev-

ery 18 inches along the bottom of the tubing.

The average green receives an hourly dose of less than a gallon of water per emitter, Ferguson said. Delivering water directly to the roots cuts water use by as much as 50 percent, according to company figures. "Most golf course water is wasted where sprinkler patterns overlap," Ferguson said. "Those areas receive at least twice as much water as needed and most simply runs off. Subsurface drip eliminates that situation."

According to Ferguson, subsurface irrigation systems also:

- cut back on water lost to evaporation, mist, surface runoff and wind interference;
- permit greens and tees to be watered during the middle of the day while play continues;
- require less electricity to deliver water through the low-pressure system than through pressurized heads;
- lower fertilizer costs by delivering dissolved materials directly to where they are needed rather than broadcasting them on the turf's surface where they can runoff and pollute the aquifer;

- allow use of effluent where the smell might be disagreeable if it were spread on the surface;
- eliminate damage to sprinkler heads caused by mowers, aerators and vandals as well as human and equipment injury caused by sprinkler heads;
- encourage root growth and reduce disease and damage caused by human and equipment traffic on wet turf;
- reduce compaction caused by the continual wetting of turf and soil;
- lower the potential risk of human disease caused by bacteria and viruses in reclaimed wa-

ter by delivering the liquid below ground.

"In areas like Hawaii with shallow water tables, it allows courses to use effluent without worrying about contaminating the nearby water table due to over-watering," Ferguson said.

In fact, subsurface irrigation may solve the real and perceived problems of using effluent, according to David Zoldoske, a researcher with the Center for Irrigation Technology in Fresno, which is doing extensive research on the new technology.

"The first course to totally commit to subsurface drip irrigation will probably be one that uses effluent," Zoldoske predicted. "The public is concerned about pathogens that might be in reclaimed water. While many of those fears are overstated, it is undoubtedly safer to deliver effluent below the ground than for it to be airborne. It makes me a little squeamish to think about being sprayed in the face with effluent."

Are there drawbacks?

Geoflow's subsurface grid work costs between 35 cents and 65 cents per square foot of irrigated turf area to install, Ferguson said. For a 6,000-square-foot green, that ranges from \$2,100 to \$3,900.

The system can be stripped into existing greens, she said. But the scarring takes a good two weeks to heal.

Then there is the potential of roots clogging the small emitter holes. Turf needs uniform irrigation. If one of the emitter holes clogs, that part of the turf will not receive water and the grass will die. Geoflow believes it has overcome that problem by infusing its emitters with the pre-emergent herbicide Treflan that keeps roots at bay for 20 years. Netafim relies on an air space between the roots and piping.

"It [subsurface drip irrigation] worked well on the tees, but I'm not sure I would use it under a green," said Norman Furtado, head superintendent at the Mid-Ocean Club, which has successfully installed subsurface drip under three tees.

"You still have to water materials into a green. And what if an emitter clogged? You'd have a dead spot in the middle of the green."

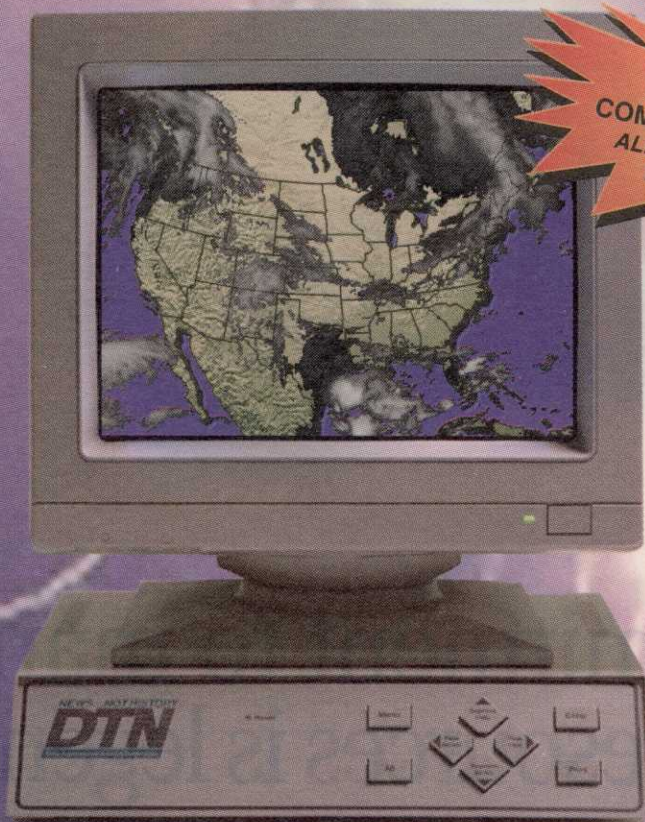
Geoflow and Netafim believe their technologies would overcome these problems and that technology will only improve in the future.

"Subsurface drip for golf courses is still in the fairly early stages of development," Stoll said.

"But in five to 10 years there will be many applications — greens, tees, clubhouse grounds, parking lot perimeters, around trees. You can bring a tree to maturity 30 to 50 percent faster with subsurface drip irrigation. It's just a matter of people getting used to the idea."

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CIRCLE #121



## Pumping choices

Continued from page 24

elevation-relief situations, pressure-reducing stations or separate pump stations altogether may be required.

Distances from a pump station to the furthest head on the course can exceed two miles. As water flows through piping, energy is consumed and a pressure drop results. Barring elevation, the longer the distance, the higher the pump station pressure required.

Mainline pipe sizing and composition impact pressure requirements. More energy and pressure will be needed at the pump station to provide a 4-inch main with an equal amount of water flow as a 12-inch main. Pipe material also plays a role, as the inside of steel pipe is rougher than PVC and requires more energy to transport water.

### Sizing for Flow

Just as many factors are involved in sizing for pump station flow rates. Flow-rate sizing starts with the irrigation schedule. To minimize water-flow requirements, an irrigation schedule must be balanced within the watering window. As watering windows close, higher-capacity systems are needed. An eight-hour window requiring 1,000 gallon-per-minute (GPM) flow may become a six-hour window that requires 1,500 GPM.

The superintendent should formulate irrigation schedules that maintain a relatively consistent pump-station flow rate throughout the irrigation period. It's better to schedule each irrigation set over the entire site, like all odd greens or even fairways. Irrigating over the entire course at any given time will minimize excess velocities in the pipe network and help reduce pressure requirements at the pump station.

### Models

The most effective way to evaluate pump-station performance is to build a computer model of the station and irrigation system. These computer models map every irrigation pipe, valve and head on the course as well as other factors influencing pressure and flow rates. They also help maximize efficiency by properly sizing the station according to flow and pressure, thus minimizing upfront equipment expense and ensuring that capacity meets the needs of the irrigation system with little excess.

Flow needs on a golf course can range from 1 or 2 GPM to several thousand GPM. Typically, multiple pumps are sized to meet all irrigation needs, from hand watering to a full irrigation program. Pump stations and their control systems can be customized to accommodate the needs of the course and operational preferences of the superintendent.

### Sizing for Budgets

An entire book can be written on variable frequency drive (VFD) versus constant-speed

pump stations, and the benefits and drawbacks of each.

Generally, variable frequency drives change the speed at which the pump turns. By changing the speed of the pump, pressure remains uniform over a wide range of flow rates. The pump can turn slow enough to provide the volume of water required for operating one head and then accelerate as needed for additional heads to operate.

Variable frequency drives don't require elaborate control valves to regulate pressure, thus saving power needed to push water through these valves. Also, less energy is wasted spinning

the pump at unnecessary speeds.

Smooth transitions in flow changes add to the value of VFDs. As heads and valves open and close, the speed of the motor adjusts, similar to an accelerating or decelerating automobile engine.

The primary disadvantage of a VFD station is cost. This higher expense must be offset by lower system operation and maintenance costs. All golf course pumping requirements are different, and in many cases operational savings won't justify the additional cost of a VFD station.

Constant-speed pump stations are pumps with motors that are either on or off. The primary

advantage of constant-speed pump stations is the lower initial cost. Disadvantages include higher energy costs and rougher transition of flows.

If you have expensive power and high water requirements, a VFD might be more attractive. If power costs and water demands are low, constant-speed stations might be more appropriate.

Irrigation engineers and consultants can objectively analyze system components and operation, and assist in the construction of computer models to properly size pump stations. As the professionalism of consultants has emerged, so has that of pre-

fabricated pump-station manufacturers. They offer extensive and invaluable service networks to provide emergency repairs and service. Companies that deal predominantly in golf course pump stations know the gravity of downtime associated with pump equipment failures.

Pump stations should be precisely engineered to fit site-specific conditions and budget maximize resources while significantly extending the life of the irrigation system. The more superintendents understand about the topography and irrigation demands of their courses, the clearer pumping requirements become.

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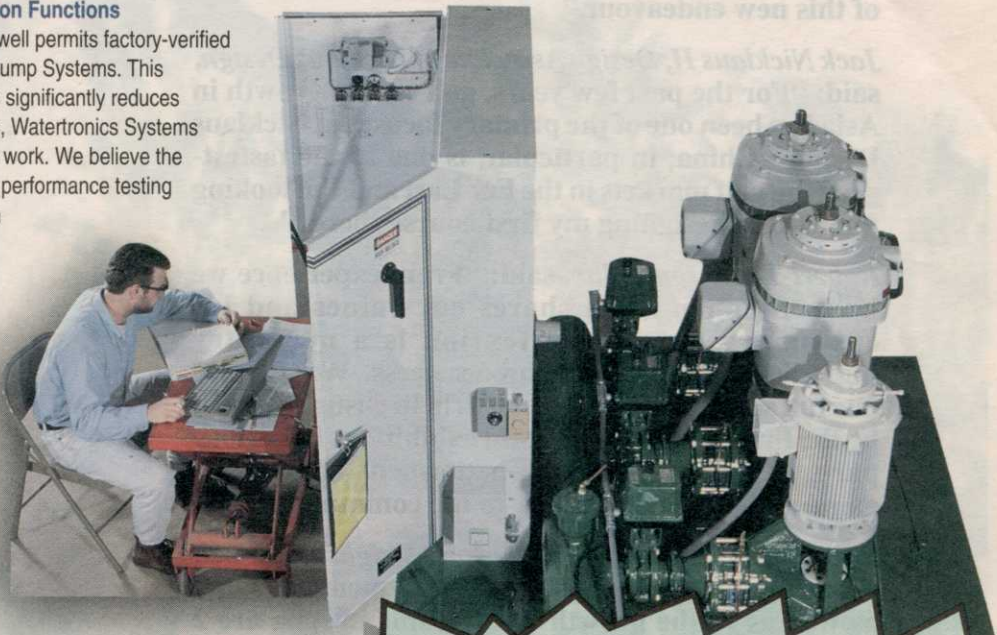
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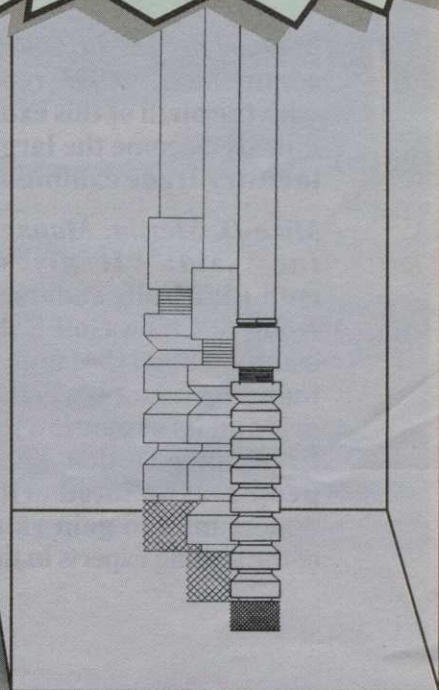
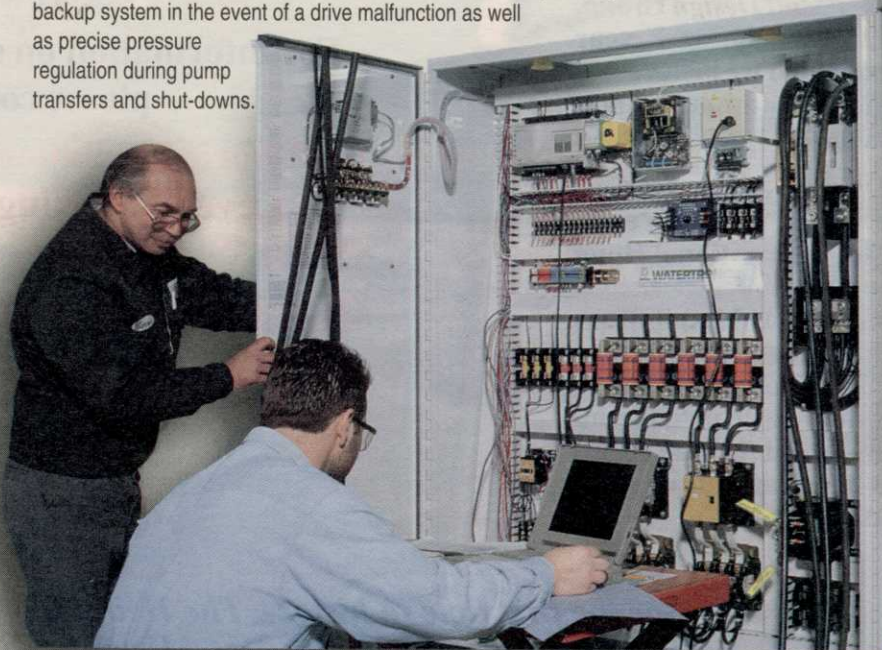
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*Ed Seay, Vice President & Chief Operating Officer of Palmer Course Design Company, said: "We look forward to participating in the first exhibition. The golfing industry will be the benefactor of this event and we look forward to being a part of the launching of this new endeavour."*

*Jack Nicklaus II, Design Associate of Nicklaus Design, said: "For the past few years, golf course growth in Asia has been one of the primary focuses of Nicklaus Design. China, in particular, is one of the fastest-growing golf markets in the Far East and I'm looking forward to designing my first course there."*

*Robert Trent Jones Jr., said: "From experience we know Stephen Allen shares our values and his customary personal attention is a necessary ingredient to make this show a success. We will give our full support and attention to help ensure this will be the first of many successful exhibitions in various parts of the world for the betterment of golf as a game and a beneficial asset to the community."*

*Robin Nelson, President of Nelson • Wright • Haworth commented: "Stephen Allen's commitment to quality as well as to the growth of the game in Asia are 2 major factors which will ensure instant success and make this exhibition a major force in the golf industry. During the current decade and well into the 21st century, Hong Kong and Southern China will be the focal point of the growth of the game in Asia."*

*Michael Poellot, President of JMP Golf Design Group, commented: "1995 represents a benchmark year with the birth of this exhibition which we believe will quickly become the largest and most important golf industry trade exhibition in Asia."*

*Mike D. Martin, Managing Director of Pacific Golf Inc, said: "It gives me great pleasure to enthusiastically endorse The 1st International Hong Kong & China Golf Exhibition & Conference. The common bond that unites all Golf World Exhibitions founding members is our dedication to the game of golf and its expansion to all corners of our planet. I firmly believe that this exhibition will provide all people associated with this great industry an opportunity to gain valuable information from some of the leading experts in the field."*

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## Stop Press

*For the first time in history, The Heineken World Cup Golf Tournament will be held at Mission Hills Golf Club, Shenzhen, China ~ 9-12 November 1995. Come to the Exhibition 1st then see the world's greatest players in action.*



## BRIEFS



## PALMER NAMES GONZALEZ VP

PONTE VEDRA BEACH, Fla. — Barbara González has been appointed vice president and director of business development for the Palmer Design Co. González has been with the company for 22 years — since its inception during the early 1970s. She travels extensively in Europe, the Pacific Rim and domestically for discussions with prospective clients and participates in many trade/conference exhibitions. She is a full member of the Urban Land Institute.



Barbara González

## FOSTER PROMOTES SCHAUPETER

ST. LOUIS, Mo. — Arthur Schaupeter has been promoted to lead design associate with Keith Foster Golf Course Design here. He will manage the firm's plan production and specification development. Meanwhile, Jason Hollen, a landscape architecture graduate of West Virginia University, has joined the design staff.

## CUPP IMPROVING STONEBRIDGE

NAPLES, Fla. — Stonebridge Country Club, a 313-acre residential development centered around an 18-hole golf course here, has completed its first phase of improvements. Upgrades included widening the landing areas of holes 1, 2, and 4. Stonebridge developer Taylor Woodrow Communities recently acquired several preserved acres that were part of the community's property. Taylor Woodrow has committed \$300,000 to improving the golf course. Bob Cupp, who designed the original course along with Gene Bates, is overseeing the course improvements.

## ST. JAMES ADDING 18

SOUTHPORT, N.C. — St. James Plantation is constructing a second 18-hole championship golf course in the community's second phase of development. Called The Members Course, the track is being built by the community's developer, Homer E. Wright, Jr. Golf course architect is Clyde Johnston & Associates, of Hilton Head, S.C. The new course complements the existing 18-hole Dye-designed layout. The new clubhouse, the second for St. James Plantation, will be designed by architect David R. Polston of Wilmington, N.C.



Clyde Johnston

GOLF COURSE NEWS

## Back in 1936 Tilly foresaw a world with no sand nor traps

By J. BARRY MOTHES

PORTLAND, Maine — "Golf Course of Future Will have No Sand Nor Traps, Expert Predicts"

A headline from the *National Golf Enquirer*?

No, just Albert W. Tillinghast getting a bit apocalyptic back in 1936.

Tillinghast, the Philadelphia playboy and renowned golf course architect who designed Baltusrol, Winged Foot and the San Francisco Golf Club to name a few, was hired by the Professional Golfers Association (PGA) of America in the mid-1930s to advise its member clubs on alterations. At the time, 11 national championships had been played on his courses in the preceding 16 years.

As part of his charge, Tillinghast traveled the country for more than a year as a PGA-sponsored adviser. He met with golf course superintendents and pros, toured golf courses and offered advice. By September 1936 he had visited 322 courses. In September 1936, Tillinghast visited Portland



On the golf course A.W. Tillinghast foresaw in 1936, there would be no saving or threatening sand bunkers like these at the Jay Morrish-, Tom Weiskopf-designed Buffalo Creek Golf Club in Rockwall, Texas.

Country Club here.

A few excerpts from his visit reported by the Portland Sunday Telegram:

"The golf course of the not too distant future will have neither rough nor sand, except [where] it be unavoidable," A.W. Tillinghast, widely known golf course architect, predicted Saturday afternoon.

"Mr. Tillinghast expressed his strong disapproval of sand on golf courses, and said that golf courses 10 years hence

would have none of it... Of course, he said, seaside courses will be bound to have some sand on them, but why should a beautiful inland course be cluttered with it?"

But, Tillinghast added, "Sandless courses won't be any less difficult to score than those of today... The science of golf courses will be built into the contours of the greens and the approaches to them..."

Continued on page 32



The rebuilt 16th hole greensite as per Langford at Ozaukee Country Club in Megeon, Wis.

## QA Forse masterminds 'oldies' remakes, longs for his own

Having grown up at the Donald Ross-designed Mountain Ridge Country Club in New Jersey, it's no wonder Ron Forse now makes his living in large part remodeling "courses by the classics." The West Virginia University landscape architecture alumnus, who has worked with architects Brad Benz, J. Michael Poellot and Ron Fream, is also designing his own tracks. He is collaborating with Ross Forbes for a new nine at Methodist College in Fayetteville, N.C., and the two are in the midst of eight long-range improvement plans, including a remodeling of the Herbert Strong-designed Nassau Country Club on Long Island. Managing editor Mark Leslie caught up with him at Portland (Maine) Country Club, a Ross-designed, oceanside track Forse was visiting.

**Golf Course News:** Are people more aware of course designers than they were five, 10, 20 years ago?

**Ron Forse:** Yes. Now guys who aren't big internationally are being promoted. People like Art Hills. It's like "designer" labels to some degree. People are putting the names of the architects on advertisements, promotional materials and scorecards. This is a news occurrence. People now know because of the media attention to architects. In the mid-'80s people all of a sudden became aware.



Ron Forse

Continued on page 30

## Myrtle Beach's North Course faces major changes from Palmer

MYRTLE BEACH, S.C. — Arnold Palmer and the Palmer Design Group have returned here this summer to oversee substantial changes to the famous North Course at Myrtle Beach National Golf Club, a 54-hole complex. The course closed May 1, and is scheduled to re-open in October. The South and West Courses at Myrtle Beach National remain open throughout the summer.

The North Course was originally designed by Arnold Palmer in the early 1970s. It was among the first courses at the Beach, and one of the first courses anywhere to feature an "island" green. The North Course's par-3 3rd hole, with an island green and "SC" shaped bunkers has remained the signature hole for the entire Grand Strand.

What began as a minor updating of the North Course has evolved into a project of total course design and visual enhancement under the direction of the Palmer Group. The bentgrass greens will be re-shaped and enlarged, and then sodded with the new hybrid Crenshaw bentgrass. Many trees have been removed. Several fairways will feature increased undulation, and bunkers and lakes will be reshaped. The 3rd hole is undergoing major enhancement, with the addition of bulkheads and a new bridge.

Myrtle Beach National is owned by the Myrtle Beach National Co.



## Q&A: Ron Forse

Continued from previous page

Before then, they were clueless. GCN: What first got you interested in golf course design? Why not landscape architecture at resorts, or nature trails...?

RF: My interest was golf before landscape architecture, even though that is my degree. When I was 11 years old, I was on Route 46 in Pinebrook, N.J., and saw a pitch-and-putt course with old quartz bunkers facing the road and not the golf hole. Something about that caught me. And when I was in junior high school I got so excited watching the Masters that I went out in my

best friend's backyard and we laid out a pitch-and-putt course.

Then I started caddying in 1972. Later, I went to work on the maintenance crew for [Maurice] Skip Cameron, who is just now retiring from Canoe Brook [in Summit, N.J.]. Then I went to work in the golf shop finishing and repairing clubs.

GCN: So you got the golf bug entirely before design.

RF: Right. Then I found that architecture is a great blend between art, the hard sciences and sports. It's the only profession that blends those. Plus, the need to go out and sell. I love to sell.

GCN: Why your interest in Ross, [Alister] Mackenzie and

the other old-time designers in particular?

RF: It's mainly subjective. The inherent quality, the intrigue of these old places, the hand-made look, the boldness of the features.

GCN: Aren't features more bold now?

RF: The bunkers are not necessarily as bold or dramatic, because one of the things we're so concerned about today is maintenance. We've taken away the drama of some of the huge bold features, like the gigantic crossing bunkers that were at Portland [CC in Maine] in days gone by. You look at the old pictures of Nassau. And Seth Raynor in Long Island did a moat hole and there is this huge expanse of land. Now there are just narrow bands of sand on three sides of the green. They are still dramatic. They're 12 feet deep.

GCN: What do you see as the main differences between architecture today and then?

RF: We're missing a lot of variety because of drone features. There is too much sameness today. The machines drone the same mounds over and over again.

The classic architects were very similar to each other in their philosophies, although the character of their features and certain things they would do — little nuances of design — were really different. But they all agreed that roughs were never introduced as a hazard. You don't pull rough in to make it a hazard.

If you could somehow combine the routing genius of William Flynn, the boldness of expression of [Charles Blair] Macdonald and Raynor, the strong strategic design of Mackenzie and the naturalness of Ross, you'd have a great design. "Natural" here means indigenous.

If people studied these old

courses they would see some of these things and would implement them. Why can't people put in ridges around these undulating berms around greens instead of a series of bunkers?

GCN: What about equipment improvements? How have they changed design?

RF: Today, because of irrigation, you don't need fairways as wide. But you need hard, dry approaches to duplicate the green complexes [of the past]. The new equipment — the steel shafts, the new technology of the balls — has made it more of an aerial game; and it changes everything. But you can still design courses using the old principles.

GCN: So many people are huge fans of Ross. But you say Ross actually changed his design philosophy after World War II?

RF: After World War II, he started cutting very large, flat-bottomed grassy hollows and using that for fill on greens.

GCN: Then would he have moved as much earth today as other people, perhaps?

RF: I don't think he would have moved as much. I think he would have expanded his repertoire a bit. He would have taken more liberty moving earth on some green sites. He actually did move more earth on green sites after the earth-moving technology of World War II came along — like those expansive grassy hollows at Hartford Golf Club.

GCN: If you redo a Ross course that he designed in the 1920s, do you do so with the thought of what he would have done at that point in time or at a later time?

RF: If it ain't broke, don't fix it. I think it would be arbitrary to say, "Well, he would have changed this or that." When he came back to Rolling Rock [Golf Course in Ligonier, Pa.] in the

'40s after he had done it originally in 1917, he didn't change it. He just added more tees.

The classic architects would update their courses. I talked to William Langford's son, Tom, and he said his dad in the '30s — with the steel shafts and other advances in the game — did actually relocate fairway bunkers further from the tee. Updating was being done even 60 years ago.

GCN: Is Ross your favorite?

RF: I don't want to overemphasize Ross. Other people did other things well. Flynn was great at routing and using the land, but his bunker style was not my favorite. Flynn's greens were good, but were plain, not intricate. He didn't do a lot of changes of levels or ridges through greens, like I prefer. Mackenzie was fantastic with putting surfaces and was probably the strongest for bold strategic concepts in his designs. But Ross seemed to do the whole package well.

I've also become a huge fan of William Langford because of his bold strategy and bunkers. He's got one grass-bottomed fairway bunker at Lasonia Links in Green Lake, Wis., that is 150 feet long, 35 feet wide and 12 feet deep. That's a fairway bunker on a long par-4 that you have to carry if you want to reach the green in two. That is a bold concept.

I'm also a big fan of the bunkering at Oakmont. That is great stuff — big, bold. And you can't leave out Raynor and Macdonald. I think The National Golf Links [by Macdonald] is the best-designed golf course in the country. Scotland's first course, St. Andrews, I think, is architecturally the best golf course over there. And over here, the first good golf course was The National, and I think it's still the best. The boldness of the concepts, the strategy. It's almost a five-ring circus going on. There are features all over the place. There's so much to think about, even though many holes are not long.

You have to have those wide golf corridors to do that. On great strategic holes, you need generous widths to give various strategic paths to the green. We're limited from that sort of thing with land use today. Also, we don't have the sites. Oftentimes we're extremely limited. Yet, Marion was limited in land and they still have a great, strategic course. The emphasis on strategy is important because it allows every level of golfer to enjoy his round.

GCN: Now that you are becoming better known, would you like to do more new construction?

RF: Yes. It's exciting because of all the things we've learned by studying the best architects.

GCN: What would be your trademark?

RF: That's a problem. We don't have an established style. As the land dictates, we're willing to work with greatly flashed bunkers, or with flat-bottomed, deep, grass-faced styles. We've done both.

Continued on next page

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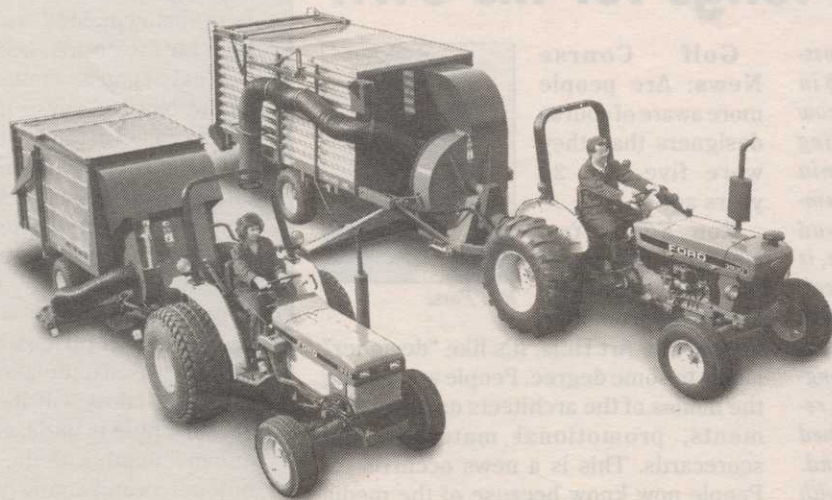
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CIRCLE #124

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CIRCLE #125



## Harbottle, owner co-design Calif. track

STEVINSON, Calif. — The Savannah Course at Stevinson Ranch, an upscale public golf course in California's Central Valley, is scheduled to open Sept. 1.

Jointly designed by architect John Harbottle and co-owner George Kelley, the 18-hole, par-72 layout adheres to the character and traditions of the great Scottish links courses while preserving the native wetlands, terrain and habitat of the surrounding farmlands.

"It's the best thing I've ever done," said Harbottle.

"We expect to be ranked among the best new public golf courses in the country,"

said Kelley, whose Merced County dairy farming family is developing the project together with the San Francisco-based Lurie Co. The course has filed for inclusion in the Signature Program of the Audubon Society of New York, Kelley added.

With four sets of tees, Savannah stretches from 5,400 to 7,000 yards. The layout employs the risk-reward theory of design, requiring skilled shot-making and careful course management.

A 350-yard-long, dual-sided driving range is already open for practice from one end. Golfers on the all-grass practice tee are charged by time.



The 9th hole at Stevinson Ranch Golf Club's Savannah Course.

## Q&A: Ron Forse

Continued from previous page

[A.W.] Tillinghast was the same way. He changed his style constantly. At Sunnehanna that we are working on [in Johnstown, Pa.], it has very deep grass-faced bunkers. So does Sands Point on Long Island, where we've worked. And in other places like Newport [R.I.] Country Club, they're flashed. He did the same thing at Ridgewood in Gramace, N.J.

"Indigenous" and "strategic" are our watchwords, while being totally sound in the land-use multifunctional facets. We need courses that fit the land in their final form, and have no unnecessary earth-moving.

Basically, the art and functional side of construction still must serve the game ultimately. You can lose sight of that.

GCN: Have people lost sight of that?

RF: Sometimes. Art for art's sake on a golf course is not a great idea. The best synthesis is where you have dynamic-looking holes that make the game interesting and exciting. Holes that are good golf, that are done in a beautiful way that are maintainable and don't cost an arm and leg to build.

GCN: How would you describe your new courses?

RF: Our new work incorporates all the great strategic concepts. Royal Oaks [Golf Course in Lebanon, Pa] does that, and seems to be working. The place is full. And it shows there is room for good-quality public golf. Markets all over the country still need it. We need to do things [at public courses] like have bunkers that interrupt the line of flight, because it honors and compliments the daily-fee player with the choice of playing over the bunker, around it, or pulling up short.

GCN: Compare new construction and remodeling for us.

RF: New construction in some ways is harder. Some people say remodeling is harder. The hard part about remodeling is making sure of your style. You have to be a chameleon and make your style fit with what's there. With new work, you have a blank canvas. Depending on the site, there isn't as much inspiration. So, in order to come up with a good design, you plainly have to be a good designer.

GOLF COURSE NEWS

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\*Based on research conducted by the Center for Golf Course Management, a subsidiary of the Golf Course Superintendents Association of America.

CIRCLE #126



#### ZEPHYR SPRINGS ADDING 9

ZEPHYR HILLS, Fla. — Zephyr Springs Golf Club began construction of its back nine in mid-June. It will also include renovation of the irrigation system. When completed, the par-70 course will play approximately 5,000 yards. The 18-hole course is expected to be open by late-November. Design work was done in-house at International Golf Group, Inc. Tifton Golf Services is course construction contractor.

## Young increases design presence in Southeast

Golf course designer Mike Young has several projects underway in the Southeast, including The Heritage Club in Atlanta; River Point Golf Club in Albany, Ga.; and Old Cove Golf Club near Tuscaloosa, Ala. Another course, the Henderson Golf Club in Savannah, opened in March.

Young began construction in March on the 18-hole Heritage Club. Located just five minutes from downtown, the new daily-fee course will offer the kind of close-in convenience not seen in the city for more than 25 years. It also includes a 23-acre practice facility which is likely to become home to a national golf school.

Developed by Whitecrest, Ltd. of Atlanta, The Heritage Club plans a spring 1996 opening.

Scheduled to open this fall is River Point Golf Club, an 18-hole layout. Located along the Flint River in Albany, the course is being built in conjunction with development of upscale family homes.

In the town of Northport, near Tuscaloosa, Young recently broke ground on Old Cove Golf Club. Situated on a 500-acre piece of farmland dotted with coves, the 7,000-yard course is expected to emphasize high-level maintenance. It should open this fall.

## Phillips comment

Continued from page 10

from story to story, dropping one-liners with deadpan precision — Pete sat down to thunderous applause. But the master of ceremonies, GCBA Executive Director Phil Arnold, couldn't resist:

"Pete Dye," Arnold told the audience, "gives speeches like he designs courses: No notes."

•••

I want to make sure Robert Dedman Sr. — the Day II key-noter at Golf Course Expo — isn't overlooked when discussing the upcoming conference and show. Sure, he doesn't have his own American Express commercial, but Mr. Dedman has been one of golf's most prescient observers for more than 35 years.

His company, Club Corporation International, got its start with the management of private clubs. As its portfolio of private golf and city clubs grew, ClubCorp was soon acknowledged as the premier golf management firm in the world, a position it occupies to this day.

Yet when the golf industry changed, so did Dedman and ClubCorp. As the daily-fee and resort markets began to overtake private course development in the 1980s, Dedman created new divisions — ClubResorts and GolfCorp — to deal specifically with the very different needs of public-access courses.

And isn't that what Golf Course Expo is all about? Owners, managers and superintendents at daily-fee, resort and municipal golf courses face different challenges from those faced at private courses. They have different vendor needs, different educational needs, different operational needs.

Seeing as public-access courses outnumber private courses by 2:1, isn't it time we addressed them? Come November, Dedman and Golf Course Expo will do just that.

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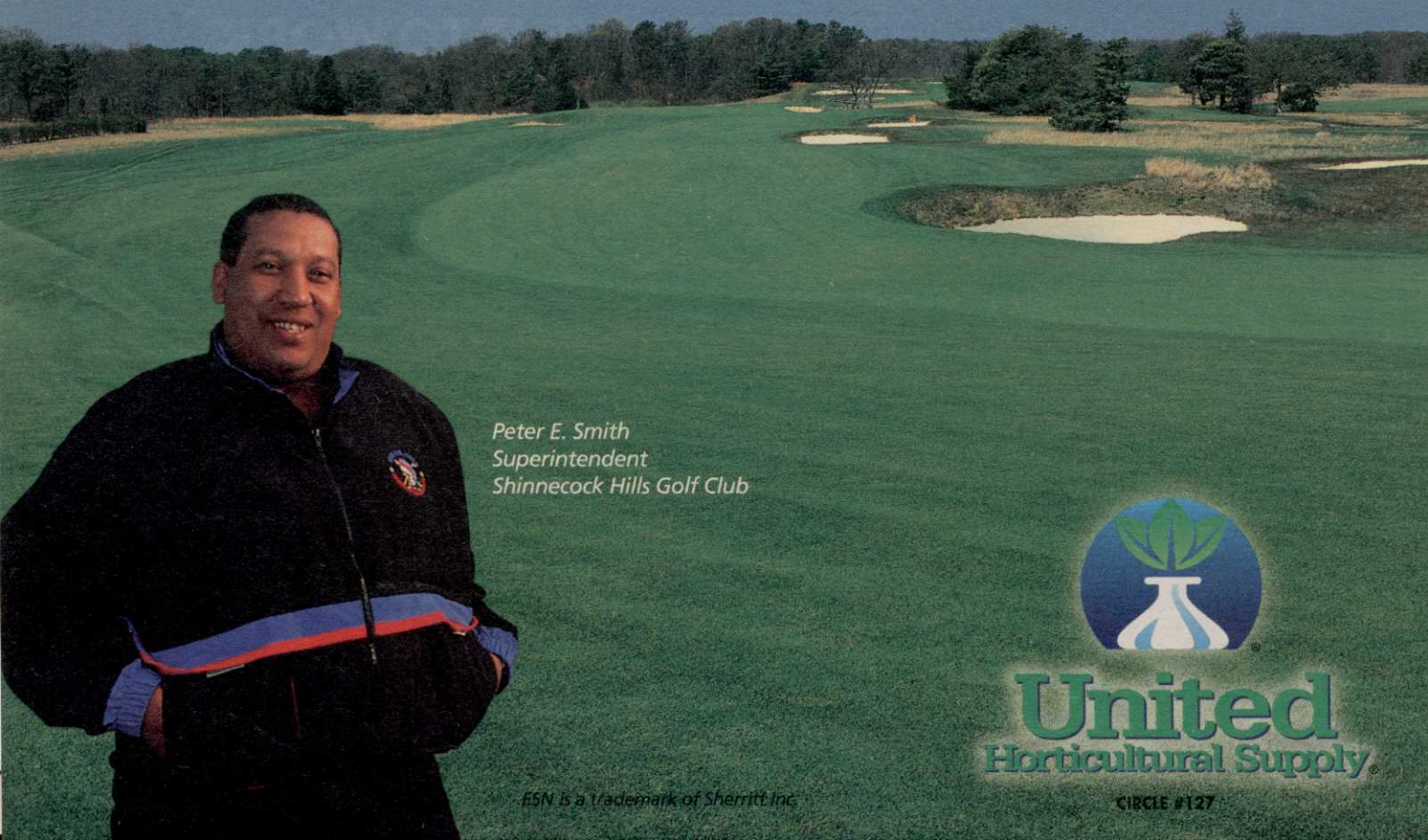
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"Here at Shinnecock both the club management and grounds crew take great pride in being on the leading edge of course management. We also share a genuine concern for the environment. I applaud United Horticultural Supply for helping us meet our

goals with this smart new technology and for raising the standards for fertilizer performance and environmental stewardship."

As superintendent, Smith knows well the tradition of excellence that surrounds the course. It's a distinction learned from his father and grandfather, superintendents of Shinnecock before him, who together with Peter have dedicated more than 90 years toward the development and success of Shinnecock Hills Golf Club.

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Peter E. Smith  
Superintendent  
Shinnecock Hills Golf Club



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CIRCLE #127

## A Tillinghast tale

Continued from page 29

"What if the duffer is able to get a par on the new course once in a while that he doesn't get now? Why continue to torture that already harassed person with sand traps?"

Tillinghast, who lost millions in the Depression and would leave golf completely by 1937, apparently had plenty of criticism for his own courses, especially 20 or so in the Midwest. He also allowed that everyone has their own opinion as to what constituted a good golf course.

Tillinghast was reportedly approached by U.S. Government officials to build several hundred golf courses under the auspices of the Works Progress Administration (WPA).

"I refused for two reasons," Tillinghast told the Press Herald. "First, because all my time is occupied by my PGA duties; and second, because in six months I don't expect to see any WPA."

GOLF COURSE NEWS



## BRIEFS



## CLUBCORP ADDS TWO COURSES

DALLAS — ClubCorp and its public-access affiliate GolfCorp have added a pair of golf courses to the Dallas-based firm's portfolio. ClubCorp recently purchased J. Michael Poellot-designed Gainey Ranch Golf Club from Markborough Development, an operating unit of Stanford, Conn.-based Thomson Corp. The 27-hole layout hosts 60,000 rounds annually. B.T. Country Club LLC recently sold Belle Terre Country Club to Belle Terre Management Corp., a GolfCorp subsidiary. The Pete Dye-designed, 18-hole course will benefit from the company's initial capital improvement plan for the par-72 layout and clubhouse.

## COLLOPY JOINS THE RAVEN GC

TUCSON, Ariz. — Tom Collopy has been named the first director of golf at



Tom Collopy

The Raven Golf Club at Sabino Springs. Collopy previously worked at La Costa Resort and Spa in Carlsbad, Calif., and Douglas Park Golf Course in Glasgow, Scotland. Located northeast of Tucson in the foothills of the Santa Catalina Mountains, the Robert Trent Jones Jr.-designed Raven layout is scheduled to open in December.

## CAREFREE ACQUIRES VENTANA CANYON

CAREFREE, Ariz. — Carefree Resorts has acquired Ventana Canyon Golf and Racquet Club from Finova Corp. of Phoenix. Ventana includes two Tom Fazio-designed 18-hole courses, dining room and lounge, 12-court tennis facility, fitness center and salon. Carefree is expected to officially acquire the property in October upon completion of a \$4 million renovation that includes work to the two golf courses. Carefree also operates The Boulders in Carefree, The Peaks at Telluride (Colo.) as well as Carmel (Calif.) Valley Ranch.

## WILSON RETURNS TO GOLFCORP

GAINESVILLE, Fla. — GolfCorp named Jeff Wilson regional manager of northeast Florida operations. Wilson, is headquartered at Haile Plantation here and previously worked at GolfCorp for 13 years. He rejoins the Dallas-based management firm after a brief stint as general manager of Sequoia Springs Golf Club in British Columbia, Canada. Wilson will team with Jerry Moore, GolfCorp's regional vice president for southern Florida.

## Brassie and Stanchina reach accord

Orlando developer takes back 3 courses from realigned firm

By PETER BLAIS

St. LOUIS — Brassie Golf Corp. has subtracted three courses from its portfolio and added three others.

According to Brassie Senior Vice President of Acquisition and Development Lance McNeill, an out-of-court settlement has been reached resulting from several lawsuits involving Brassie and Warren Stanchina, president of Orlando-based Golf Communities USA.



William Horne

The agreement releases the parties from further action in connection with Brassie's March 1994 purchase of Palisades and Wedge-field country clubs in Orlando and North Shore Country Club in Corpus Christi, Texas.

Brassie transferred its interests in what it termed the three "under-performing" golf courses back to Stanchina. Consequently, an aggregate of \$11 million in debt (\$5.7 million of which is short term) was eliminated, resulting in a significant improvement in Brassie's balance sheet, financial position and liquidity.

Said Brassie President William Horne in a prepared statement: "We are pleased with the outcome of the Stanchina settlement. Although the company will incur a one-time, \$4.1 million charge during the June 1995 quarter as a result of this settlement, we have eliminated assets which did not have the potential to achieve our longer-term goals of return on invest-

Continued on page 34



Cooks Creek Golf Club is aggressively marketing to the Columbus, Ohio, daily-fee market.

## MARKETING IDEA OF THE MONTH

## Cooks Creek seeks Columbus golfers with innovative marketing ideas

By PETER BLAIS

COLUMBUS, Ohio — Trying to grab a portion of the daily-fee market in a golf hotbed like Columbus is no easy task for a new facility.

Just ask the people at GolfCorp, operator of Cooks Creek, the 18-hole, Mike Hurdzan design that opened for play in early July.

"We're trying to be real aggressive," said GolfCorp's C.J.

McDaniel, who has come up with several ways to reach the links savvy Columbus golf community.

• *Discounts for using Softspikes.*

The course-friendly alternative to metal spikes has found a receptive audience around Ohio's capital. Private Muirfield Village and Scioto Country Club require them.

Cooks Creek opted for the soft sell.

Golfers buying a \$5 set of Softspikes at the Cooks Creek pro shop receive \$5 off the regular \$45 weekday and \$55 weekend rate for that day's and every subsequent round as long as they are wearing Softspikes. The golfer's name is also entered in a drawing for a top-flight driver (Big Bertha, Cobra and others).

"Every time a person buys a set of Softspikes, his name is entered in the drawing again," McDaniel said. "If we can get people to use them on a voluntary basis it will improve the course for everybody."

• *Incentives for following ads.*

GolfCorp had a well-known golf course artist paint a number of sketches of the course. In addition to hanging in the clubhouse, they are appearing in newspaper ads promot-

Continued on page 35

## Focusing on business key to Nat'l Fairways success

By PETER BLAIS

Many people enter the golf business because they love the game and hope to somehow earn a living in it. Marc Bergschneider chose the golf industry because it was a good business, period.

"I don't play golf," said the chief executive officer and president of National Fairways Inc., a Greenwich, Conn.-based firm that operates 14 courses along the East Coast. "We really run our operations as businesses. We're very disciplined and make certain any investment makes economic sense."

Bergschneider is a Brown University graduate with a master's degree in business administration from the University of Chicago. He spent 10 years on Wall Street and five as a self-described deal maker before founding National Fairways three years ago.

One of his first moves was to hire Don Carpenter, a 20-year American Golf Corp. veteran who helped grow that manage-



Hudson National Golf Club is one of National Fairways' 14 facilities.

ment company giant from 10 to 150 courses.

"Don is a very sharp guy," said Bergschneider of his chief operating officer. "I rely a lot on people like Don who know the specifics of the golf business. Many people get in trouble in this industry because they think they know more

than they really do. I know what I'm good at — working the numbers, marketing and figuring out where to spend money. That's what I do best. I leave the rest to people with experience in those areas."

An affiliate, National Fairways Ltd., initiated the company's entry into the golf market by acquiring six western Florida courses for \$20 million in 1992. They included Hibiscus Golf Club (GC) in Naples, Tides Country Club (CC) in Seminole, Port Charlotte GC in Port Charlotte, and Rolling Green, Sarasota and Sunrise golf clubs in Sarasota.

A year later, the firm added Hidden Hills GC and the Oak Bridge Club at Sawgrass, a pair of private clubs in Jacksonville.

Bergschneider came back to the Northeast for his next purchase, Hudson National GC in Croton-on-Hudson, N.Y. The \$25 million, Tom Fazio-designed layout

Continued on page 36



## UMass mulls adding course management program

AMHERST, Mass. — Already well-respected for its turfgrass management program, the University of Massachusetts is considering creating a golf course/club management curriculum.

Nearly 12 percent of Massachusetts residents play golf at 343 courses across the state. Thirty-five courses are located on Cape Cod, contributing an estimated \$142 million to the economy of that region alone. In addition, three major producers of golf equipment and accesso-

ries — Spalding Sports Worldwide, Acushnet Industries and Reebok International Ltd. — are based in Massachusetts.

According to Robert Halgesen, dean of the College of Food and Natural Resources, such a program would bring together existing courses from various departments with an added emphasis on business issues, to meet the increasing demand for managers that has resulted from rapid growth within the golf industry.

The turfgrass program, which has graduated many course superintendents and other turfgrass professionals, would be a major contributor. "UMass has become a center for turfgrass science in New England," said William Torello, director of the turfgrass management program.

Programs and research in the departments of sport studies and hotel, restaurant and travel administration would also assist in the development of the program, currently under study as part of

the college's long-range plan. Only four golf course/club management programs exist nationwide.

William Sutton, associate professor of sport studies, and Rod Warnick are conducting a major study for the Ladies Professional Golf Association. The survey examines many issues including women's participation in golf, golf merchandise for women, and women's attitudes about golf clothing and merchandise.

Warnick, an associate professor of hotel, restaurant and travel administration, is examining golf

participation throughout the American population.

"Golf was once perceived to be a game for wealthy, older men," he said. "However, research indicates the popularity of the game is reaching a broader cross section of adults. Participation is increasing across all age groups and has more mass market appeal."

Additionally, the UMass chapter of the Club Managers Association has been named the most outstanding student chapter by the National Club Managers Association.

## Brassie, Stanchina settle differences

Continued from page 33

ment, and can now utilize these resources on golf course acquisitions with greater potential returns."

Brassie recently merged with Club Operations and Property Management (COPM) to form one of the country's largest management companies.

Stanchina characterized the settlement as, "amicable. We're very happy with the way things turned out." But, regarding the courses, he added: "They may have under performed for Brassie, but they didn't for us. They may have hit a bad time financially. They probably paid a little too much for them [\$15 million]. If they had put in more equity and less debt capital, they may have been in better shape."

McNeill agreed with Stanchina's assessment.

"We're pleased it was settled amiably," said McNeill, who was with COPM prior to the Brassie merger. "It was positive on Warren's side. He sold the properties for \$15 million a year ago and is buying them back for \$11 million. He is also developing the real estate around North Shore which he controls again. The settlement also helped us settle many financial aspects on our side."

"In the process of merging with Brassie, we reviewed their holdings and felt the short-term debt they'd taken on to purchase those properties put a tremendous strain on the company. We felt it was better to return the properties and take the one-time [\$4.1 million] hit. Brassie simply paid a high-end price and with that amount of debt it made it difficult on the whole company."

...

Brassie also announced that it has signed three new management contracts — Heritage Links Golf Course (GC) in Gainesville, Fla., Manassas Park GC in Prince William County, Va., and Smokey Mountain (N.C.) Country Club.

"Based on current prospects, we expect to sign at least 10 additional management contracts within the next 60 days," Horne said.

GOLF COURSE NEWS



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## CMAA offers 1995 Master Club Manager research to association members

ALEXANDRIA, Va. — The Club Managers Association of America (CMAA) has made available the 1995 Master Club Manager (MCM) Monographs. These in-depth scholarly analyses were produced by the first six club managers earning MCM designation.

The MCM title recognizes individuals for outstanding leadership qualities, strong intellectual backgrounds and achievement of highly successful careers within the club industry. The MCM process provides a formal vehicle for top club managers to document their contributions by providing them the opportunity to select a topic in which they have a comprehensive background and produce a scholarly

study, monograph.

"Too many highly qualified managers retire or die without ever having had the opportunity to share their knowledge with the entire club profession. It should be the intention that these monographs remedy that situation," said Warren Arseneaux, co-chairman of the Club Management Institute, CMAA's education committee. These first six monographs have fulfilled the vision of Arseneaux's intent.

For example, James Brewer, general manager of the Los Angeles Country Club (CC), produced a Monograph entitled "Developing a Club's History Book: An In-Depth Guide." Edward Henderson, gen-

eral manager of Portage CC in Akron, Ohio, produced "Lions Among Us: A Study of the Role and Success Factors of Club Managers Who Have Flourished in Their Clubs." Through his surveys and a complete review of the literature in this area, he found "clear links between success factors and individual success."

Offered through the CMAA Bookmart, the cost for a complete volume is \$69.95. Additionally, Brewer's Monograph, "Developing a Club's History Book: An In-Depth Guide," is available individually for \$39.95. For more information or to place your order, contact Karen Miller at 703-739-9500.

## Cooks Creek

Continued from page 33

ing Cooks Creek.

"If someone collects all nine renderings, they can turn them in for a free cart rental," McDaniel said. "Not only does that attract people to the course, it gives us an idea of whether our print ads are effective."

- **Radio show.** Hurdzan is one of several widely known architects calling Ohio home. Arthur Hills, Jack Kidwell, Barry Serafin, Steven Forest, Dana Fry and Brian Huntley also hang their shingles here. And Jack Nicklaus honed his game on the Buckeye State's links.

A golf populace well versed in the ways of such notable architects undoubtedly found a recent radio talk show featuring Hurdzan and McDaniel quite interesting.

Hurdzan discussed the whys and wherefores of Cook Creek's design, while McDaniel explained how the course would be operated.

- **Club-fitting promotions.** GolfCorp is seeking a club manufacturer to conduct monthly club-fitting seminars at the Cooks Creek driving range.

"Tour players have a wagon that follows them around the country," McDaniel said. "They get to test all kinds of clubs and balls and to be fitted perfectly for their equipment."

"We'd like to have daily-fee players get a similar opportunity. We're hoping to get a club maker in here on a monthly basis who would let players try a number of different clubs. They could be fitted perfectly and the representative could take an order on the spot. We'd provide free range balls. We may even name the driving range after the club company."

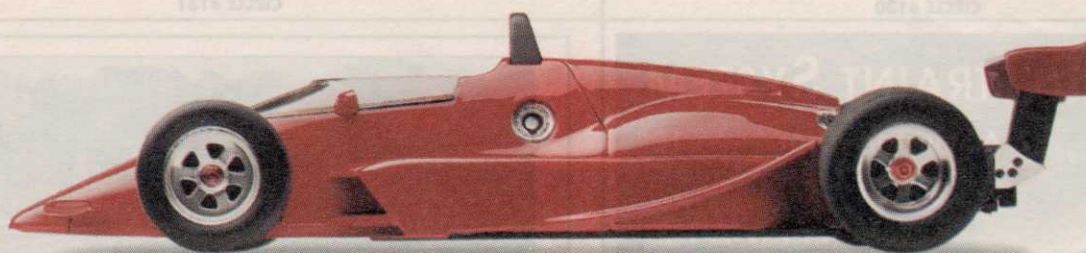
McDaniel and GolfCorp are hopeful these and other marketing tools will lure players to Columbus' newest layout. Two weeks into the season, the pro shop was reporting 100-plus rounds a day during the week and 150 on weekends.

But the course itself will ultimately determine its position in the Columbus golf market, said McDaniel, adding Cooks Creek was nominated for best new course in the country.

GOLF COURSE NEWS



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CIRCLE #129



By NANCY SMITH, J.D.

**E**SCONDIDO, Calif. — The owner of a golf course must design it to minimize the danger that players will be injured by balls hit by fellow golfers, according to the California Court of Appeal.

In the recent decision of *Morgan v. Fuji Country USA, Inc.*, the court found that removal of a dead tree which had previously provided protection from errant tee shots may have been the cause of William Morgan's injuries. The court upheld Morgan's right to sue the club to recover for his injuries.

Morgan was a member of Castle Creek Country Club here, where he played golf

*Nancy Smith is an attorney working in Pasadena, Calif.*

## Owners must design courses for safety

two to three times per week. He frequently took refuge by a particular tree when other golfers were hitting from the 4th tee because the balls often flew onto either the 5th tee or green.

When the tree which had provided protection became diseased, the club removed it. Several people had near misses from golf balls originating at the 4th tee and ending up near the 5th tee box. Morgan stated that balls traveled farther after the tree had been removed.

Morgan was injured when he was struck by a ball hit from the 4th tee. He sued the

golf club owner for his injuries. Although the trial court initially ruled against Morgan, on appeal the higher court held that he could go forward with his case and sue the club owner.

In California, the law generally holds that a person participating in a sport cannot recover for injuries which are known risks associated with the sport, unless the injury is intentional. For example, a

player injured in a touch football game cannot sue another player for game injuries. A whitewater rafter cannot sue the outfitter for injuries sustained when fall-



ing in the boat while going through a rapid.

Although attorneys for the golf course argued that being hit by a golf ball is an inherent risk of the sport, the court nonetheless held that Morgan could pursue his claim that the course design was faulty.

The court held that a golf course owner cannot make the sport more hazardous by his design of the course.

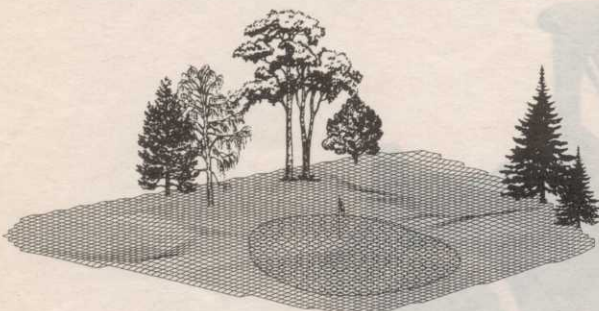
"Thus, the owner of a golf course has an obligation to design a golf course to minimize the risk that players will be hit by golf balls, e.g., by the way the various tees, fairways and greens are aligned or separated," the court wrote.

"In certain areas of a golf course, because of the alignment or separation of the tee, fairway and/or greens, the golf course owner may also have a duty to provide protection for players from being hit with golf balls," according to the court.

The ruling allows Morgan to return to court to have a trial on whether his injuries were caused by the removal of the tree from the course.

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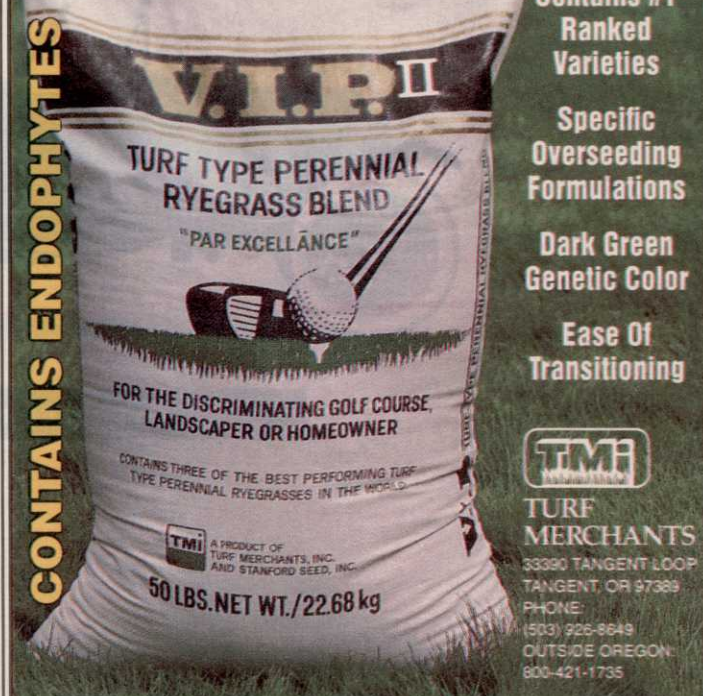
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CIRCLE #133

## National Fairways

Continued from page 33

is 80 percent complete and should open next summer. This is Fazio's first private course in the New York City area. Memberships are selling for \$100,000 and the club has already recruited 106 members, making it one of the most successful new private facilities to open in the Northeast, Bergschneider said.

"The location is the main thing," he said. "The course sits 500 feet above the Hudson River, with fantastic views of the water from a dozen holes. The area was ready for something like this since private clubs are so hard to get into. And then there is Fazio. He's the best."

Other National Fairways holdings include:

- a management contract at Minesceongo GC in Pomona, N.Y.
- a 30-year lease to operate 36-hole D. Fairchild Wheeler GC for the city of Bridgeport, Conn.

- Lindbrook GC, an 18-hole executive course in Hopkinton, R.I., purchased in April

- Boulder Hills, a semiprivate, 18-hole layout in Richmond, R.I. set to open in August that was designed by Austin, Texas architect Tripp Wood.

- A Desmond Muirhead-designed layout in Connecticut the company is negotiating to purchase.

"Our goal is to buy more courses on the East Coast," Bergschneider said. "We'll concentrate on areas where we already have properties so we can benefit from some economies of scale. But we'll also be looking at the Carolinas and Virginia."

"Our main business is acquiring existing courses. Hudson National is the only one we're building and Minesceongo our lone management-only contract. We like to take existing courses, run them better and make them more profitable. We're at 14 courses now. We'd like to be between 25 and 30 within three years."

The company won't limit itself to a particular type of course. It currently operates everything from Hudson National and its \$100,000 membership fees to Fairchild Wheeler and its \$6 green fees, Bergschneider noted.

"Every market is different," he said. "You have to analyze a particular course's situation, adapt to the market and not overspend."



## Non-profits

Continued from page 1

non-profit entity to run their three Essex County layouts.

"I get calls from all over the country asking how we did it here," the Baltimore executive said. With cities having problems running their own facilities, and many 10-to-15-year management contracts with private firms set to expire, this is an alternative many cities are exploring, he added.

Fed up with the deteriorating condition of its facilities — Jefferson Park, Jackson Park and West Seattle — the Seattle golf community demanded the city do something, recalled Chris Redo, chief executive officer of Municipal Golf of Seattle, the non-profit group that took over the municipal courses July 1. Redo was also part of an 11-member, volunteer advisory board the city established last September to explore alternatives.

The board settled on four options, Redo explained. They were:

- Retain the concessionaire who had allowed the courses to deteriorate. "That wasn't acceptable," Redo said.

- Hire a national, for-profit management company, e.g. American Golf Corp. or ClubCorp. "They do a good job. But we didn't want the money generated by our courses leaving the community," Redo said.

- Establish a public development authority (PDA), which would seek private investors to put up money for renovations and operations in return for a hefty return on their investment. Seattle had a bad experience with a PDA that renovated Pike Place Market, a popular farmer's market. "They raised the rents so high that people were forced out of business," Redo said. The advisory board feared a PDA could dramatically increase green fees to recover its investment rather than keep fees affordable.

- Establish a non-profit organization that would keep fees affordable while re-investing profits toward the \$20 million in capital improvements that had been suggested in the city's master plan but were largely ignored by the previous operator.

The advisory board chose the non-profit route this past winter. Redo resigned from the board and was eventually named CEO of Municipal Golf of Seattle, which received a 10 1/2-year contract beginning July 1.

Redo is confident the company can turn the Seattle situation around. But one major roadblock exists, he admitted. The City Council required that unionized city employees continue to maintain the facilities. The city did assign a liaison to act as a conduit between the maintenance staff and the firm, and also agreed to place only employees who had expressed a genuine interest in course maintenance at the facilities. But city politicians would not give Municipal Golf the authority to replace city workers with the company's own employees.

"The city charter forbids anyone but municipal employees from working on city-owned facilities," Redo explained. "We basically have to buy our services from the city. Those unionized labor costs are much higher than a privately-owned, daily-fee operation would have to pay for the same services. It will be quite a challenge to keep our green fees low and our costs in line."

Baltimore Municipal Golf Corp. doesn't labor under such restrictions, Redo

pointed out. When it was first established, then-Mayor William Donald Schaefer and the City Council withstood considerable public and media pressure and freed BMGC to hire whoever it wished.

BMGC offered to retain the entire maintenance staff, although at reduced pay and benefits, Cooke explained. Of the 120 full-time employees, only three chose to stay. The full-time maintenance staff now stands at 64. But part-time employees have grown to 275. There were no part-timers when the city operated the facilities 10 years ago.

"Having to use city employees is going to be a nightmare for Seattle," Cooke said. "Maintenance costs make up at least 60 percent of a course budget. That means Seattle's non-profit company is controlling a minority of its own operational bud-

get. If they fail, it will be because of that, not because the advisory board or the company didn't do their jobs."

Apprised of Seattle's city charter requiring the use of municipal employees on all Seattle golf course facilities, Cooke responded:

"Charters are made by people and can be changed by people. Congress has amended the U.S. Constitution, so a city ought to be able to amend its own charter."

"We've been successful because we were able to eliminate politics from business decisions. Indianapolis Mayor Stephen Goldsmith asked me what was the single most important thing he could do in order to make this work in his city. Politicians must want to see a non-profit firm succeed and then be willing to get out of the way."

## Cost doesn't stop golfers from playing

Golfers are less likely to be deterred by the game's cost than people who participate in other kinds of outdoor activities, according to the 1994 Roper Survey for the Recreation Roundtable, *Outdoor Recreation in America*.

The report also noted that of all outdoor activities surveyed, golf ranked highest in the percentage of participants who began the sport after age 18. Fewer than half surveyed reported relatives introduced them to the game.

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CIRCLE #134

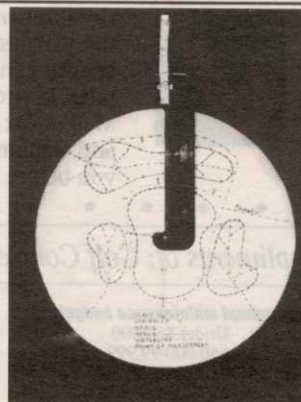
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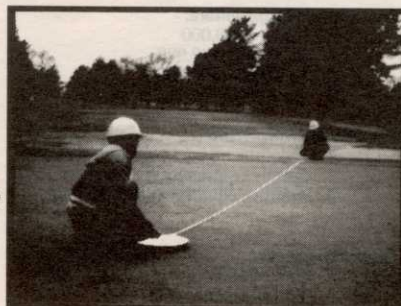
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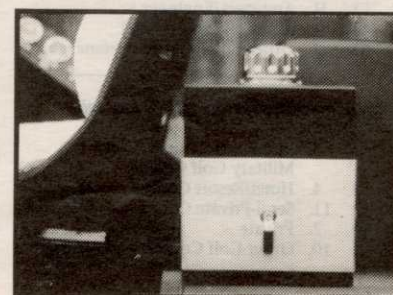
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CIRCLE #135

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# GOLF COURSE EXPO MEANS BUSINESS

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Business for You!



THE PUBLIC-ACCESS GOLF INDUSTRY COMES TOGETHER AT GOLF COURSE EXPO, THE ONLY NATIONAL TRADE SHOW AND CONFERENCE FOR SUPERINTENDENTS, MANAGERS, OWNERS, OPERATORS AND DEVELOPERS OF PUBLIC-ACCESS GOLF FACILITIES—DAILY-FEE, SEMI-PRIVATE, RESORT, AND MUNICIPAL COURSES.

## Register Today to be Part of this National Event for Public-Access Golf Facilities

### Save Money by Pinpointing Exhibitors on the Trade Show Floor

We're serious about saving your money and time. Evaluate vendors who are there for all your needs—equipment, chemicals, seed and sod, builders, accessories, sod, golf cars, consultants, management software, fertilizers, architects, and management companies. Let them show you one-on-one how they can help you meet your twin objectives—running a top notch operation and increasing your bottom line.

### Participate in Special Show Events—Like Shop Talks Sessions—Where you'll Learn Ways to Impact Your Bottom Line

Shop Talks are vendor-sponsored sessions where participating suppliers will zero in on solutions, feature their products and services, and address critical industry trends. Conducted in a seminar style, the sessions are held right on the show floor and are an outstanding way to enhance your participation in the show. And it's all part of the Expo.

### Gain Insights from Keynote Sessions

Featuring a keynote session by the Family Dye on November 9. Hear from Pete, Alice, Perry, and P.B.—the most prolific design family of public-access golf courses in the world. On November 10, discover why the country's largest club management firm is focusing its attention on public-access courses from keynoter Robert Dedman Sr., the Founder and Chairman of Club Corp.

### Discover New Approaches and Confirm Current Ones by Attending the Multi-tracked Conference Program

In the crowded public-access marketplace, maintaining quality conditions on your course in the face of high traffic—at a reasonable cost—is even more important. Marketing your course takes on added significance. Efficient management becomes an absolute must. The conference offers easy-to-adopt ideas that really work.

### Get Up to Speed on New Products and Services

Find out "what's new" to give your course the competitive edge. The key to success in the business of golf is staying on top of new trends, partnering with vendors, and finding creative solutions. Golf Course Expo is a carefully designed event to provide all three—and give you the edge.

## Golf Course Expo is for:

GOLF COURSE SUPERINTENDENTS • COURSE OWNERS  
• COURSE MANAGERS • OPERATORS • GENERAL MANAGERS  
• CEOs • ASSISTANT GOLF PROS • MANAGERS OF GOLF SERVICES • BUSINESS MANAGERS • BUILDERS • COOs  
• HEAD PROFESSIONALS • CHAIRMEN OF THE BOARD • DIRECTORS OF PARKS AND RECREATION • GOLF COURSE MANAGERS • ARCHITECTS • CORPORATE PRESIDENTS • CITY ADMINISTRATORS • DIRECTORS OF CLUB OPERATIONS • COURSE MANAGERS • DIRECTORS OF GOLF • EXECUTIVE DIRECTORS • ASSISTANT SUPERINTENDENTS • GREEN COMMITTEE CHAIRMEN • ASSISTANT CITY MANAGERS

### Bring the Management Team

Golf Course Expo is a must-attend for superintendents, managers, owners, operators, general managers, golf administrators, directors of parks and recreation, builders, architects, and developers. This is a great chance for everyone at your course who makes buying decisions to find key products and services that will help your facility operate more effectively and efficiently.

### Orlando—America's Favorite City

Golf Course Expo will be held at the Orange County Convention Center, a world-class convention facility conveniently located on International Drive in Orlando, Florida. The state-of-the-art complex offers easy access, ample parking, and fully-equipped conference facilities. It's an economical and easily accessible location—and one of America's favorite destinations.

## Two Days—Two Ways to Attend the Expo. Join us in Orlando November 9 and 10

### Free VIP Pass

Compliments of *Golf Course News*, the VIP pass is your ticket to all vendor exhibits and displays, shop talks, keynotes, and special events. Mail or fax this form by October 27 and we'll mail your VIP Badge to you before the show.

### Full Conference participation

The full conference costs \$295 and includes access to all exhibits and displays—plus attendance at our two-day multi-tracked conference. Participants also receive a wealth of valuable take-back to the office materials. Check the box to receive complete conference information and a registration form.

## Free VIP Pass—Registration Form

Compliments of: *Golf Course News*

### 1 My primary title is: (check one only)

- ☐ A. Golf Course Superintendent
- ☐ B. Owner/CEO
- ☐ C. General Manager
- ☐ D. Director of Golf/Head Pro
- ☐ E. Club President
- ☐ F. Green Chairman/Dir. Grounds
- ☐ G. Assistant Superintendent
- ☐ H. Builder/Developer
- ☐ I. Architect/Engineer
- ☐ J. Research Professional
- ☐ K. Others allied to field (please specify)

### 2 My primary business is: (check one only)

- ☐ 1. Public Golf Course
- ☐ 2. Municipal/County/State/Military Golf Course
- ☐ 3. Hotel/Resort Course
- ☐ 4. Semi-Private Course
- ☐ 5. Private
- ☐ 6. Other Golf Course: (please specify)

- ☐ 7. Golf Course Architect
- ☐ 8. Golf Course Developer
- ☐ 9. Golf Course Builder
- ☐ 10. Supplier/Sales Rep
- ☐ 11. Other (please specify)

### 3 Total annual maintenance budget:

- ☐ 1. Under \$50,000
- ☐ 2. \$50,000-99,999
- ☐ 3. \$100,000-249,999
- ☐ 4. \$250,000-499,999
- ☐ 5. \$500,000-749,999
- ☐ 6. \$750,000-1,000,000
- ☐ 7. Over \$1,000,000

### 4 Annual capital expenditure:

- ☐ A. Under \$100,000
- ☐ B. \$100,000 - 249,999
- ☐ C. \$250,000 - 500,000
- ☐ D. Over \$500,000

### 5 Purchasing involvement:

- ☐ 1. Recommend equipment for purchase
- ☐ 2. Specify equipment for purchase
- ☐ 3. Approve equipment for purchase

### 6 I plan to purchase:

- ☐ A. Immediately
- ☐ B. Within six months
- ☐ C. Six months to 1 year
- ☐ D. Over 1 year

You must be 18 years of age to attend

Save \$20! Send for your FREE VIP Pass to Golf Course Expo today. Please complete the information below and mail it to Golf Course Expo, Expo Registration, P.O. Box 805, Westwood MA 02090. Or Fax it to 617-329-8090. This form may be photocopied for additional registrations—why not bring the whole team and save them \$20. too? To avoid long lines at the show, this form should be received by **October 27**. After that date, just complete it and bring it to the show with you. Badges will be mailed two weeks before the show.

- ☐ Please send me information on the Conference program (bb) ☐ My company is interested in purchasing exhibitor space. Rush me details. (cc)

PLEASE PRINT

Name: \_\_\_\_\_

Nickname: \_\_\_\_\_ Title: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Country: \_\_\_\_\_

Telephone: \_\_\_\_\_ FAX: \_\_\_\_\_



ORANGE COUNTY CONVENTION CENTER  
ORLANDO, FLORIDA  
NOVEMBER 9-10, 1995



## BRIEFS



## YUST JOINS PRECISION LABS

Precision Laboratories, Inc., Northbrook, Ill., has announced the appointment of Allan Yust to sales and marketing manager of its Turf and Ornamental, IVM Products Division. Yust previously held the position of specialties product marketing manager for DowElanco of Indianapolis, Ind.

## NESTMA SHOW AUG. 9

SPRINGFIELD, Mass. — The New England Sports Turf Managers Association (NESTMA), in cooperation with the University of Massachusetts Extension and Western New England College (WNEC), will conduct its 4th Annual Athletic Turf Field Day, Aug. 9 at WNEC. NESTMA's annual meeting and elections will be held in addition to demonstrations on irrigation, top dressing and infield grooming.

## JOHN T. VAN WINKLE, 47

John T. Van Winkle, 47, of Springfield, Mo. — long-time sales manager for Champion Turf Equipment — passed away May 24, at his home following a battle with ALS, Lou Gehrig's Disease. Memorial contributions may be made to the ALS Association, Keith Worthington Chapter, 8340 Mission Rd., Suite B-4, Prairie Village, KS 66206; or the Hospice of SW Missouri, Inc., 3653 South Ave., Springfield, MO 65807.

## FURZE LEAVES VIGORO FOR PURSELL

SYLACAUGA, Ala. — Pursell Industries, Inc., the manufacturer of coated controlled-release fertilizer, has announced the employment of Gary Furze, formerly vice president of sales and marketing of Vigoro Industries Professional Products Division. Furze will eventually relocate to the Pacific Northwest, heading up Pursell's horticulture and specialty agriculture sales effort, mainly based around Pursell's patented Polyon technology.



Gary Furze

## TORO MAKES AUDUBON DONATION

SELKIRK, N.Y. — At Audubon Society of New York State's headquarters here at Hollyhock Hollow, Toro has donated a 16 hp twin-cylinder hydrostatic mower with recycling deck and 10-cubic-foot dumpcart. The mower was donated by The Toro Co. along with co-contributor The Grassland Equipment and Irrigation Corp. of Latham, N.Y.

## EPA settles on nat'l emissions standards for small engines

By HAL PHILLIPS

WASHINGTON, D.C. — Small engines may cost \$5 to \$7 more to manufacture come 1997, when the federal Environmental Protection Agency's (EPA) new regulations on small-engine emissions take effect.

The EPA has finalized the first national set of regulations affecting small, gasoline-powered engines used primarily in the turf and lawn & garden industries. Under the new guidelines, all small engines — anything at or below 19 kilowatts (about 25 horsepower) — manufactured after Jan. 1, 1997, are expected to conform. EPA expects the new guidelines will result in a 32-percent reduction in hydrocarbon emissions and a 7-percent reduction in carbon monoxide emissions.

"This goal was announced in the Clean Air Act amendments of 1990," explained EPA Environmental Scientist Mary Walsh. "We had a timetable whereby these changes had to be completed by a certain time. This rule change was delayed for a while, but eventually there was a lawsuit brought by the Sierra Club which furthered things along."

Repercussions in the golf industry will be widespread, as the engines used in mowers, utility vehicles, hand-held blowers and trimmers, golf cars and pumps among others will be expected to fall in line. According to Walsh, the \$5 to \$7 increase will represent a 2-percent cost hike for non-hand-held equipment (6 percent for hand-held) relative to current production costs.

All those engines produced for the 1997 model year must comply. All existing inventory is grandfathered and, "As long as there is no evidence of stockpiling of

Continued on page 43



*EPA expects the new guidelines will result in a 32 percent reduction in hydrocarbon emissions and a 7 percent reduction in carbon monoxide emissions.*

## NGF buying program attracts second firm

JUPITER, Fla. — Scorecard Plus, which specializes in custom-designed booklets that serve as both yardage guides and scorecards, has become the second company to join the National Golf Foundation's (NGF) "Advantage Buying Program" which the NGF is developing for its golf facility members to provide exclusive discounts from preferred suppliers of golf products and services. As a result of the partnership with Scorecard Plus, NGF facility members can annually receive a year's supply of advertising-supported booklets free of charge, a potential savings of \$1,250 per facility, per year. The Miami-based Thor Guard Co., which developed a lightning prediction system, was the first member of the NGF's new program. For more information on the NGF's "Advantage Buying Program" call 407-744-6006.



## NEW PRODUCT OF THE MONTH

The makers of Verti-Drain have introduced the Verti-Brush, a machine incorporating a new technology (patent pending) for brushing sand into aeration holes. Unlike rotating or reciprocating brushes, the open helix-pitch Verti-Brush picks up the sand and forcefully disperses it over the surface. The unit weighs 220 pounds and has a working width of six feet. Power required at 540 rpm is approximately 6 hp. For more information, call Emrex — national distributor for Verti-Drain and Verti-Brush — at 717-288-9360. For more new products, see page 42.

## Nicholson to direct Mid-America show; Groth re-elected

CHICAGO — Bliss Nicholson, of the Wisconsin-based Bruce Co. has been appointed to a three-year term as a director of the Mid-America Horticultural Trade Show.

Nicholson, of Middleton, Wis., will represent the Wisconsin Landscape Federation, succeeding Paul Swartz, who had served for 21 years.

Peter Grathoff of Thornapple Landscape Maintenance in Geneva, Ill., was reappointed to a fourth term on the board representing the Illinois Landscape Contractors Association.

The eight member board is composed of representatives from Mid-Am's three sponsoring associations — Illinois Landscape Contractors Association, Illinois Nurserymen's Association, and Wisconsin Landscape Federation.

In addition, the board re-elected Don Groth of Don Groth Landscap-



ing, Greenfield, Wis., as president; Thomas Hoerr of Green view Companies, Inc., Dunlap, Ill., as vice-president; Platt Hill of Platt Hill Nursery, Bloomingdale, Ill., as secretary; and Frank Mariani of Mariani Landscape, Lake Bluff, Ill., as treasurer.

Along with its three sponsors, Mid-Am is endorsed by the Iowa Nursery & Landscape Association, the Minnesota Nursery & Landscape Association, and the Nebraska Association of Nurserymen. For more information contact Mid-Am at 1000 N. Rand Road, Suite 214, Wauconda, Ill. 60084; or call 708-526-2010.

## RISE NOTEBOOK

## RISE Annual Meeting scheduled for Sept.

ARLINGTON, Va. — Sporting the theme, "Stewardship in Action," the RISE (Responsible Industry for a Sound Environment) Annual Meeting will be held here Sept. 7-10, at The Ritz-Carlton Pentagon City, just outside Washington, D.C.

The deadline for hotel reservations and early registration is Aug. 16. For more information on the meeting and RISE membership, contact Executive Director Allen James at 202-872-3860.

Through its various committees, members of the specialty chemical trade association will collectively concentrate on several issues during the September conclave:

- cooperation with federal representatives and agencies to assure fair and appropriate legislation and regulation;
  - learning successful environmental stewardship programs;
  - Becoming personally involved with efforts to promote stewardship in the specialty chemical industry;
  - addressing issues as an industry united.
- Other highlights will include comments

Continued on page 40



## DowElanco plans plant expansion

INDIANAPOLIS — DowElanco has announced a production plant expansion to meet increased demand for oryzalin, the active ingredient in Surflan pre-emergent herbicide. Oryzalin's world-wide sales have increased 15 percent over the last year and customer demand continues to strengthen, according to John Peterson, product manager for Surflan.

"Industry professionals are seeking versatile products that are highly efficacious and versatile enough to be used on a variety of sites," said Peterson, who attributed Surflan's growing appeal to the need to reduce weeds as part of integrated pest management programs. "They need to strike a balance between satisfying their customers and keeping operating expenses in mind. That means implementing a pest management program that advocates a judicious use of weed control products."

For more information on Surflan and the planned plant expansion, contact DowElanco at 1-800-352-6776.

## Ransomes receives U.S. patent for electric greensmower

LINCOLN, Neb. — Ransomes America Corp. has been granted a patent by the U.S. Patent Office for the Ransomes E-Plex, the industry's first electric triplex greens mower.

The patent, effective April 18, 1995, covers 50 of the mower's design features including:

- A pivoted center cutting reel that swings out from under the E-Plex, designed for ease of service.
- Two ways to backlap the cutting reels. The operator can choose to drive the reels in reverse directly from the motor or use a separate external power source. Backlapping is a method for keeping an edge on the individual blades and bedknife.

• Linear actuators to lift the reels independently and an individual reel "on/off" selection switch. This lets the operator determine which of the cutting heads will be used for the perimeter cut.

"The patent on the Ransomes E-Plex illustrates what a revolutionary example of engineering this mower is," said Peter Whurr, director of product management and training for Ransomes. "Because the mower is electrically powered, it's environmentally friendly and exceptionally quiet. In fact, the E-Plex's quiet operation has made it very popular with golf courses that are part of private residential developments."

## CETCO acquires Claymax Corp.

ARLINGTON HEIGHTS, Ill. — Colloid Environmental Technologies Co. (CETCO), the environmental unit of AMCOL International Corp., has purchased certain assets of Claymax Corp. of Fairmount, Ga., the manufacturer of geosynthetic clay liners used for lining containment ponds and beautification lakes. Terms were not disclosed.

Claymax is CETCO's fifth acquisition in the environmental market since January 1994, expanding its core capabilities in lining technologies, wastewater treatment, ground water monitoring/drilling and commercial construction materials.

For more information on the Claymax acquisition, contact CETCO at 708-506-6150.

## RISE Notebook

Continued from page 39

from David Buzzelli, co-chairman of President Clinton's Council on Sustainable Development and panel discussions on important issues, including multiple chemical sensitivity.

Hole sponsorships at the RISE Golf Classic are going quickly. If your firm is interested, contact Tournament Chairman Terry Higgins at 616-372-2038.

...

Applied Biochemists, a division of Great Lakes Biochemical Co., Inc. of Milwaukee, Wis., has joined RISE. A basic manufacturer, Applied Biochemists is the 15th new RISE member for 1995 and the 117th overall.

...

Nominees to the RISE Governing Board have been announced by Nominating Committee Chairman Peter Machin of The Andersons. Winning candidates will fill three-year terms on the governing board, beginning in September of 1995.

Official representatives will vote by mailed ballot on Jim Champion of Riverdale Chemical, a formulator; Janet Giesselman of Rohm and Haas, a basic manufacturer; and Allen Haws of the Bayer Corp., another basic. Results will be announced at the RISE Annual Meeting in September.

GOLF COURSE NEWS

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## GCSAA reorganizes headquarters staff

LAWRENCE, Kan. — The Golf Course Superintendents Association of America (GCSAA) has announced a series of organizational changes in its departmental and management structure.

Among the key changes announced were:

- Establishment of a Public Affairs Department that includes government and public relations. Pat Jones, former GCSAA director of communications, will be director of public affairs and will handle public relations.

- Creation of a department focusing on GCSAA's television show, "Par for the Course," video projects and media relations.

Scott Smith, former GCSAA public relations manager, as media relations & video services manager will be the department leader.

- Re-focus of the Publications Department on the GCSAA's magazine, *Golf Course Management*, other association publications and directories. Michael Urban, former GCSAA sales manager, has been named publications manager to oversee this department.

- Development of a department focused on technology and

management information systems (MIS) functions. Marc Lim, MIS manager, will be department leader.

- Concentration of the internal service functions of human resources, reception and facilities into a separate department. GCSAA Human Resources Manager Gwen Denton will assume the role of team leader for this department.

- Re-alignment of the travel and meetings functions to the Marketing/Conference and Show Department.

## PMS assets purchased by Gempler's

MOUNT HOREB, Wisc. — Catalog supplier Gempler's Inc. has purchased Pest Management Supply (PMS), a Hadley, Mass.-firm specializing in Integrated Pest Management products.

With the acquisition, Gempler's now offers an assortment of the former PMS's crop management tools, from insect traps and magnification and scouting tools to pest identification information, sweep

nets and pest-forecasting weather stations and software.

PMS founder Thomas Green has also joined Gempler's as its IPM/diagnostics product manager.

"Our goal is to be convenient one-stop source for IPM and other diagnostic supplies so our customers can reduce their production costs and improve yields," said Gempler's President Steve Schlect.

## Irrigation-Pump Briefs

Continued from page 24

Club of Paducah (Paducah, Ken.)

- Dan Higgins, Winchester Country Club (Winchester, Mass.)

The Freedom System retrofits to any of Rain Bird's Maxi computer-based irrigation control systems. Through it, the superintendent can access any Maxi command- or schedule-based function like Turn On, Turn Off, Advance, Pause or Resume. The contest ran from August to October 1994. The contest winners were drawn out of a field of nearly 200 superintendents who entered by sending in a special card from a magazine ad. All entrants received a Rain Bird golf shirt.

**SINGAPORE** — Striving to keep superintendents in-tune with design changes and increasingly sophisticated electronics and software equipment, Flowtronex PSI is conducting pump station training and education programs all over the world.

The latest training session took place here and drew nearly 200 industry professionals from the People's Republic of China, Malaysia, Thailand, Hong Kong.

"Our industry continues to evolve," said Flowtronex PSI President Dave Brockway. "We're becoming far more site-specific by crafting systems that address specialized course design needs. But technology alone will not address the challenges of today's course professionals. Up-to-date information and quality service support also are required. That's really what our training is all about."

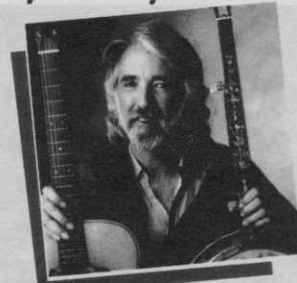
Greg Lush, the firm's head of product development and education, conducts two courses options — one an intensive training covering pump station operation, maintenance and repair from electronic systems to hydraulic parts; the other aiming to demystify pump station operations and give participants the knowledge necessary to specify, operate and evaluate pumping equipment.

For more information, contact Flowtronex at 214-357-1320.

## FLORIDA TURFGRASS ASSOCIATION

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- "A thoroughly wacky and enjoyable performance." - Washington Post
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## Toro unveils new Reelmaster 6700

Offering the best of many worlds, The Toro Co. has announced the fall availability of its all-new Reelmaster 6700-D, the industry's first riding seven-plex mower.

The 6700-D is designed to cut up to 10 acres per hour while still maneuvering like a light-weight mower. It features seven fully interchangeable cutting units, each 22-inches wide and 7 inches in diameter. The narrow reels closely follow the turf contour, providing a consistent quality of cut with greater maneuver-

ability. A single joystick allows operators to easily raise and lower any combination of five, six or seven units for cutting widths of 96, 114.5 and 133 inches, respectively.

Superintendents can choose from 5- or 11-blade reels. Four-wheel drive and 4-post ROPS are standard. Maximum mowing and transport speeds are 7.5 mph and 10 mph, respectively.

For more information, contact your local Toro distributor by calling 800-803-TORO, ext. 116.

CIRCLE #301

## Spray Star 3000 joins Smithco line

The Spray Star 3000, the new high-capacity sprayer from Smithco, has joined the company's already extensive line which includes the Spray Star 1600, various dedicated sprayers for Jacobsen's SV series and 24 other models.

The Spray Star sports a 300-gallon capacity, hydrostatic drive, a 42-hp Ford water-cooled industrial gasoline engine and a front-mounted computerized spray system.

With a payload of 3,500 pounds, its daily production rate is 100 acres.

Among the Spray Star's array of safety features are operator protection enclosure with charcoal-filtered air induction system, clear-water wash tank, electric ground speed control and an operator-presence engine seat switch. For more information, call 610-688-4009.

CIRCLE #302

## TTR launches tee time network

Tee Time Reservations (TTR) Course Scheduling Management System & Service plans a national roll-out of its package, beginning with the Pacific Northwest. Rolling Hills GC in Bremerton, Wash., went on line May 31, becoming the first of what TTR projects will be an international network of public-access golf courses.

The service enables golfers to call a local or international toll-free number at their convenience to schedule tee times at their favorite participating course. Coupled with live operators, the system can book reservations in seconds. The Microsoft Windows-based proprietary software was developed after studying the diverse reservation practices at courses nationwide.

For more information and a complete brochure on TTR's new product, call 206-781-1510.

CIRCLE #303

## RFC offers golf course restrooms

The nation's largest and most experienced designer/builder of public lavatories, Restroom Facilities Corp. (RFC), has developed a line of "instant" golf course restrooms that are economical and easy to install. Buildings are shipped to the course fully assembled and ready to set on a site-poured concrete slab. All plumbing connections are outside the buildings, which are designed to connect to either potable water or irrigation water, sewers, septic tanks or holding tanks.

The rugged interiors feature plank and beam stained ceilings, spike-resistant black/green floor finish, and white ceramic floor tile on the interior walls (floor tile is 10 times stronger than wall tile). Epoxy grouts are used for the wall, resisting mildew and graffiti since the material — which is stronger than the tile itself — is also non-absorbent.

For more information, contact RFC's Tony Piazza toll free at 800-447-6570, ext. 203.

CIRCLE #304

## Terracare introduces versatile top dresser

Terracare Products Co., Inc. has introduced a top dresser designed to fit in the rear box of most utility vehicles. With this new product, the operator is able to mount the top dresser in the box in minutes, without dismantling any part of the utility vehicle.

The unit is completely self-contained and powered with a 5 hp Briggs & Stratton Engine. It is capable of distributing top dressing to either side in a full spread pattern. For more information, call 608-429-3402; or fax 608-429-2889.

CIRCLE #305

NEW

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SubAir's full, rich oxygenation, temperature moderation and water removal system produces roots that are whiter, larger in diameter with easily twice the mass of roots maintained by conventional methods. In fact, the bottom profile of the root system virtually "re-explodes" with new growth.

SubAir's healthier, more resilient turfgrass requires less pesticides, fertilizer and labor.

SubAir is an environmentally friendly system that uses your USGA-Spec. greens' existing drainage piping to either pump air directly to the roots, or remove excess water, salt and unwanted gases.

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SubAir, Inc., PO Box 910  
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A pending patent application covering the SubAir™ system has recently been allowed by the U.S. Patent Office.



Portable SubAir



Below Ground SubAir

CIRCLE #138



## EPA alleges FIFRA violations by DuPont

WASHINGTON, D.C. — The federal Environmental Protection Agency (EPA) has issued a civil administrative complaint to E.I. du Pont de Nemours & Co. (DuPont) of Wilmington, Del., for alleged violations of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).

In a 24-count complaint, EPA has alleged that DuPont violated FIFRA by selling and distributing three Benlate (benomyl) fungicide products that differ chemically from the original formula the company had registered with the agency, according to EPA spokesperson Gwendolyn Brown. FIFRA prohibits the sale and or distribution of any registered pesticide in which the composition, at the time of sale or distribution, differs from its composition as described in the statement required in connection with its registration.

"They have requested a hearing," said EPA attorney Jim Chen. "Whenever a judge gets assigned, the hearing will go forward. It could be several months, up to a year. In the meantime, I expect the DuPont attorney to file a series of motions."

The three products in question are Benlate 50 DF (dry flowable) Fungicide, Olympic Benomyl 50 DF and DuPont Benlate Fungicide. The complaint proposes a penalty assessment of \$120,000. Prior to its November 1992 corporate statement that none of the plant damage was due to use of Benlate, the company paid approximately \$500 million to growers to settle Benlate related damage claims, said Brown.

The EPA has issued its FY 1994 Enforcement and Compliance Assurance Accomplishments Report, which highlights major policies in addition to national, regional and state enforcement/compliance initiatives. It also summarizes significant cases and provides aggregate statistics on enforcement action and penalties. The report is available from EPA by calling 202-260-2080.

## EPA emissions

Continued from page 39

uncertified engines, there should be no problem," said Walsh.

The phrase, "As California goes, so goes the country," holds here. Two years ago, the California Air Resources Board (CARB) passed emissions standards widely perceived to be ahead of the regulatory curve. Though golf cars received a short extension, all turf-industry equipment used in California is also required by law to switch over to more fuel-efficient, cleaner-burning engines by Jan. 1, 1997.

Now the whole country will be forced to similarly conform. The only difference between the CARB regulations and those mandated by federal EPA concerns hand-held machinery (EPA considers something hand-held if it is carried by the operator throughout its use or it's used in "multiple orientations"; CARB requires hand-held machinery to meet both criteria).

The EPA arrived at the new guidelines after soliciting input from a number of firms and trade associations in the small-engine market. Those connected to the golf course industry included Briggs & Stratton Corp., CARB, Echo Inc., the Engine Manufacturers Association, American Honda Motor Co., Kohler Co., Kubota Corp., the North American Equipment Dealers Association, and The Toro Co.

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2-3 — *Minnesota Turf and Grounds Foundation Expo '95* in Mendota Heights, Minn. Contact Scott Turtinen at 612-473-0557.

3-5 — *Turf Diagnostic Course* in Ithaca, N.Y. Contact Joann Gruttadaurio at 607-255-1792.

6-8 — *Georgia GCSA Summer Conference at Sea Palms Resort* on St. Simons Island. Contact Karen White at 706-769-4076.

8 — *Annual Golf Course Construction and Design Seminar* in Delhi, N.Y. Contact Dominic Morales at 607-746-4413.

16 — *Ohio Turfgrass Foundation Field Day* in Columbus, Ohio. Contact Julie Guenther at 614-261-6750.

16-18 — *Field Diagnosis of Insects and Diseases on Trees and Shrubs* in Ithaca, N.Y. Contact New York State Arborists Assn at 518-783-1322.

17 — *Michigan Turfgrass Field Day* in East Lansing. Contact Kay at 517-321-1660.

22 — *Equipment Manager I: Efficient Shop Management* in Honolulu. \*

23 — *Turf Talk '95* in Chandler, Ariz. Contact Garden West at 602-233-2966.

24 — *Turf Insect and Grub IPM, Golf Course* in Rockland County, N.Y. Contact Anna Perkins at 914-429-7085.

## September

7-8 — *Southwest Horticultural Trade Show* in Phoenix, Ariz. Call 602-966-1610.

7-10 — *RISE Annual Meeting* in Arlington, Va. Contact 202-872-3860.

9-12 — *America Society of Irrigation Consultants Annual Conference* in Atlanta. Contact Wanda Sarsfield at 510-516-1124.

12-13 — *Turfgrass Research Conference and Field Day and Landscape Management Research Conference and Field Day* in Riverside, Calif. Contact Susana Denney at 909-787-4430.

17-19 — *Southeastern North Carolina Professional Turfgrass Conference* in Sunset Beach, N.C. Contact Dr. Bruce Williams at 910-253-4425.

19-21 — *Virginia Tech Turf and Landscape Field Days* in Blacksburg, Va. Contact David Chalmers at 703-231-9738.

## October

9-12 — *49th Northwest Turfgrass Conference* in Stevenson. Contact 360-754-0825.

## November

4 — *6th Annual Rutgers Professional Golf Turf Management School and Alumni Awards Banquet* in East Brunswick, N.J. Contact 908-828-6900.

4-7 — *Georgia GCSA Annual Meeting* at Jekyll Island. Contact Karen White at 706-769-4076.

7-10 — *Turf and Grounds Exposition* in Rochester, N.Y. Contact 800-873-TURF.

9-10 — *Golf Course Expo* in Orlando, Fla. Contact Golf Course News Conference Group at 207-846-0600.

13-15 — *Women in Golf Summit '95* in Pinehurst, N.C. Contact 904-254-8800.

14-16 — *Midwest Regional Turf Foundation Turfgrass and Ornamental Seminar* in Lafayette. Contact 317-494-8039.

16-18 — *Tree Care Industry Exposition '95* in Indianapolis. Contact National Arborists Assn at 800-733-2622.

\* For more information contact the GC-SAA Education Office at 913-832-4430.

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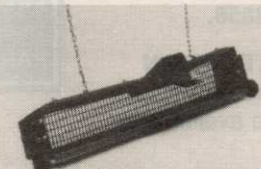
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CIRCLE #169

## Watson on short courses

Continued from page 3

*City Star.* "There's been a lot of lip service given to junior golf facilities, or places for kids to have an opportunity to play without the great expense of \$10 or \$15 or \$45 for greens fees or the great expense for having to buy a set of golf clubs. Just a place you go out with a couple of clubs and a putter and go on a small course."

Watson challenged public parks or private landowners to donate three or four acres for a few holes and provide maintenance. Greens fees at the new mini-course at Ironhorse are \$2.50 to \$3.

"What's gratifying is when you have a kid out there for the first time and hits that ball farther than he thought he could hit," Watson said. "We've provided that thrill for a few of the kids, but we haven't provided them a place to go over and over again ... That's going to be the ultimate thrill."



# Top supers, USGA directors to speak at Expo agronomy sessions

By MARK LESLIE

ORLANDO, Fla. — From the Rocky Mountains to the fruited plains to the sand and wetlands of Florida, agronomy experts will travel to Golf Course Expo here to share their knowledge Nov. 9-10.

One of three educational concentrations cornerstoning the Expo, the Maintenance Track, will feature three key U.S. Golf Association (USGA) Green Section regional directors as well as some high-visibility superintendents. The nation's only conference and trade show geared toward public-access golf course superintendents, developers and general managers, Golf Course Expo will also conduct Marketing/Management and Development Educational Tracks.

USGA Green Section Mid-Atlantic Region Director Stan Zontek, Mid-Continent Region Director Jim Moore and Florida Region Director John Foy will take the podium in the Maintenance Track, along with Keystone Ranch Resort's Steve Corneillier from Keystone, Colo., and Terry Buchen from Double Eagle Club in Galena, Ohio.

Cal Roth, director of golf course maintenance operations for PGA Tour

Investments, Inc. and its 14 Tournament Players Clubs around the country, will speak on course safety as part of the Management Track. And David Johnson, vice president of agronomy for Golf Corp's 38 public courses, will participate in a General Session panel on upgrading daily-fee facilities.

Zontek will unveil his "Best Management Practices." Moore will speak on "Environmental Common Sense: What We're Doing Wrong and What We're Doing Right." Foy will address the notion of "Doing More with Less."

Corneillier will tell how to renovate an entire golf course without closing it — a feat he has accomplished at Keystone Ranch Resort, where he is superintendent and the former vice president of



Jim Moore



Terry Buchen



Stan Zontek



Steve Corneillier

editor and Savvy Super columnist for *Golf Course News*.

Perhaps the only Kentucky colonel among his peers, Zontek has been with the USGA for 23 years, directing its Mid-Atlantic Region the last 10. A member of the board of the Musser International Turf Foundation and the Technical Resource Advisory Committee of the Golf Course Superintendents Association of America, the Penn State



John Foy

marketing.

Buchen, one of only nine Master Greenkeepers in the world, will deliver a litany of savvy agronomic tips. A former PGA Tour agronomist, he is a contributing

University graduate is an honorary member of seven superintendents associations.

For the past 10 years Moore has traveled extensively to courses in the United States as well as in Jamaica and New Zealand. The Texas A&M University alumnus has made more than 1,000 Turf Advisory Service visits. He was a superintendent for seven years before joining the USGA, and has served as president of the Texas Turfgrass Foundation and on the board of directors of various industry and community associations.

Before joining the USGA in 1985, Foy was involved in several aspects of the turf industry, including field research and development for a major turfgrass pesticide manufacturer. A University of Georgia alumnus, he has traveled extensively throughout the Southeast and the Caribbean visiting golf courses.

Last year superintendents attended the event from the Atlantic Coast to Hawaii and Canada. The organizing *Golf Course News* conference division expects a greater turnout this year. For more information, contact the Expo conference division or Program Chair Hal Phillips at 207-846-0600.

## Dedman, Family Dye

Continued from page 1

in addition to ClubCorp, owns and operates approximately 260 daily-fee golf courses, resorts, clubs and real-estate developments worldwide.

Always a leader in the golf industry, ClubCorp was quick to recognize the unprecedented growth and specific needs of public-access golf in the 1990s. Indeed, GolfCorp, the newest division at ClubCorp, is solely devoted to the management of daily-fee golf facilities. Another new division, ClubResorts, manages ClubCorp's portfolio of resort operations.

Dedman, who practiced law in Dallas

until founding ClubCorp in 1957, has received numerous honors including the Horatio Alger Award in 1989, Entrepreneur of the Year Award for Texas in 1976, and Humanitarian of the Year Award in Dallas in 1980.

Dedman College of Southern Methodist University and the Dedman Center for Lifetime Sports at SMU are named for him. There are 3,200 National Merit Scholars at The University of Texas at Austin named Dedman Merit Scholars because of scholarship funds contributed by him. Dedman Memorial Hospital and Dedman Medical Center in Dallas also are named in his honor.

Pete Dye, with wife Alice his primary consultant, has designed eight of *Golf*

*Digest's* top 69 golf courses in the country. His design innovations aside — many of which actually pay homage to traditional Scottish features — Pete has proven the financial viability of high-end courses anyone can play: the TPC at Sawgrass Stadium Course in Ponte Vedra Beach, Fla.; Harbour Town Golf Links on Hilton Head Island, S.C.; PGA West's Stadium Course in La Quinta, Calif.; and Blackwolf Run Golf Course in Kohler, Wis.

P.B.'s forte is public-access courses. He joined Canadian investors in 1990 to form Brassie Golf, a firm developing and managing low-cost daily-fee facilities. Like his father, P.B. is apt to hop atop a bulldozer and shape his own designs. He worked with Pete designing Long Cove

Club on Hilton Head Island, S.C., and The Honors Course near Chattanooga, Tenn. — both highly ranked layouts.

Perry formed Perry O. Dye Design International in 1982 and worked almost exclusively in Japan until returning recently to focus his attention on the United States, particularly municipal projects. He has continued to collaborate occasionally with his father, most notably on Arizona State University's acclaimed Karsten Golf Course.

The eyes of the golf world have been on Pete Dye since he began designing Scottish-style courses with a North American twist in the 1960s. His rise was meteoric, and Alice joined him for the ride, pushing all the way for architects to build forward tees for higher-handicapped golfers. Alice's campaign has been overwhelmingly successful, and for her efforts she was honored with the 1994 Donald A. Rossi Humanitarian Award from the Golf Course Builders Association of America.

Alice, Pete and P.B. are all members of the American Society of Golf Course Architects (ASGCA), Pete serving as president in 1989. The first female member of the ASGCA, Alice now serves as secretary-treasurer and is expected to ascend to the society's presidency in two years.

So stereotyped by others, The Dyes in general — and Pete in particular — have gone about inventing new, maintainable methods to accomplish their individual design philosophies. Vertical walls of turfgrass. The old Scottish style of riveted bunkers. Boulders used as bulkheads. Vertical wire mesh edging water hazards.

"The variety and challenge of different designers, a multiple selection of design in any given community, is very, very healthy," Pete once told *Golf Course News*. "The strength of golf is its variety. If we were all Donald Rosses, Ellis Mapleses, or Alister Mackenzies, it would start to get boring."

For more information on attending and exhibiting at Golf Course Expo, call the Expo Hotline at 207-846-0600.

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