

# GOLF COURSE NEWS

THE NEWSPAPER FOR THE GOLF COURSE INDUSTRY

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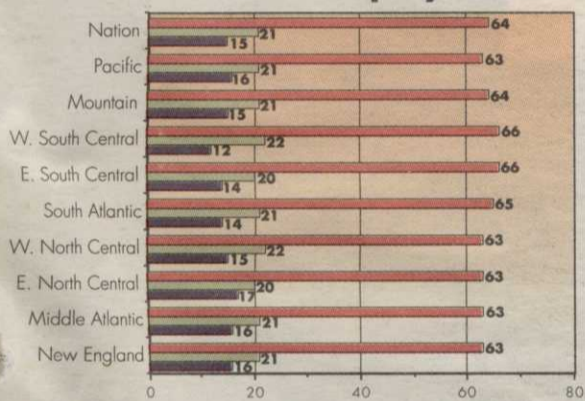
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Source: NGF

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## Flood devastates Texas courses

By Peter Blais

Jack and Melissa Fletcher stood along the banks of the Brazos River Christmas Eve watching the rain-swollen waters rise at the rate of an inch per hour and drown their nine-hole course.

"It died a slow death," recalled Jack, who helps daughter Melissa manage Valley Lodge Golf Club in Simonton, Texas, 30 miles west of Houston. "It was a very helpless feeling."

Valley Lodge was one of many courses suffering major damage from the heavy rains that deluged eastern Texas in late December and

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Retreating flood waters left behind massive debris throughout Ridgewood Country Club in Waco, Texas, including the 10th fairway. Photo courtesy of Mandel Brockinton

## Strategic plan critical challenge to club managers' association

By Peter Blais

Jack Sullivan found his bride and a career on the golf course.

The new Club Managers Association of America president was a high school teacher in Fairfield, Iowa, when he met wife, Darcy. Darcy's house bordered the fifth tee at Fairfield Golf & Country Club.

The two played a lot of golf together and Jack eventually got a part-time job as the club's bar manager. He quickly became the club's assistant manager and his career was off and running.

That career has taken him to The Whiconda Club in Des Moines, Iowa, Nakoma Golf Club in Madison, Wis. and his present employer, Grosse Pointe Yacht Club in Grosse Pointe Woods, Mich.

"This is the first time I've been at a club without a golf course," said Sullivan, who came aboard Grosse Pointe in 1987. "Basically, I've traded in the golf course for a harbor. Where I used to worry about green speeds, weather conditions affecting the course and helping the superintendent deal with turf diseases, now I worry about water levels, how

weather conditions affect the fleet and helping the harbor master plan boating activities.

"I grew up in the golf business as a manager and I closely follow the golf industry. I'm still a golfer, although my game has suffered from not having a course out the back door. My handicap used to be in single digits. Now it's up around 18.

"As CMAA president, I represent the entire club industry. Two-thirds of our members manage country clubs with golf courses. As the association goes through our strategic planning process over the next 18 months, what we do will be strongly dictated by the golf industry."

Completing that strategic plan will be Sullivan's primary goal during his



Jack Sullivan

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## Wetlands manual in midst of flux

From staff reports

The long-awaited revision of the Federal Manual for Identifying and Delineating Jurisdictional Wetlands remains on hold and developers have been told to disregard the 1989 manual in favor of the 1987 version.

Mike Kelly, vice president of Williamsburg Environmental Group in Williamsburg, Va., said a revised manual probably will not be completed for another six to 12 months.

"The reason is that environmentalists are up in arms over Bush's wetlands plan," Kelly said. "Hysteria has caused pressure to re-evaluate changes."

Meanwhile, he said, a bill in Congress, introduced by Louisiana Rep. Jimmy Hayes and co-sponsored by more than 145 congressmen, is "moving slowly through the process." Hayes' bill would revamp the whole Clean Water Action Section 404 program and override regulations instituted by government agencies.

The Environmental Protection Agency, Army Corps of Engineers and U.S. Soil Conservation Service — which

Continued on page 13

## Stricter pesticide laws in the making

By Peter Blais

A growing number of communities are proposing laws restricting pesticides since last summer's U.S. Supreme Court ruling that federal law cannot stop local governments from regulat-

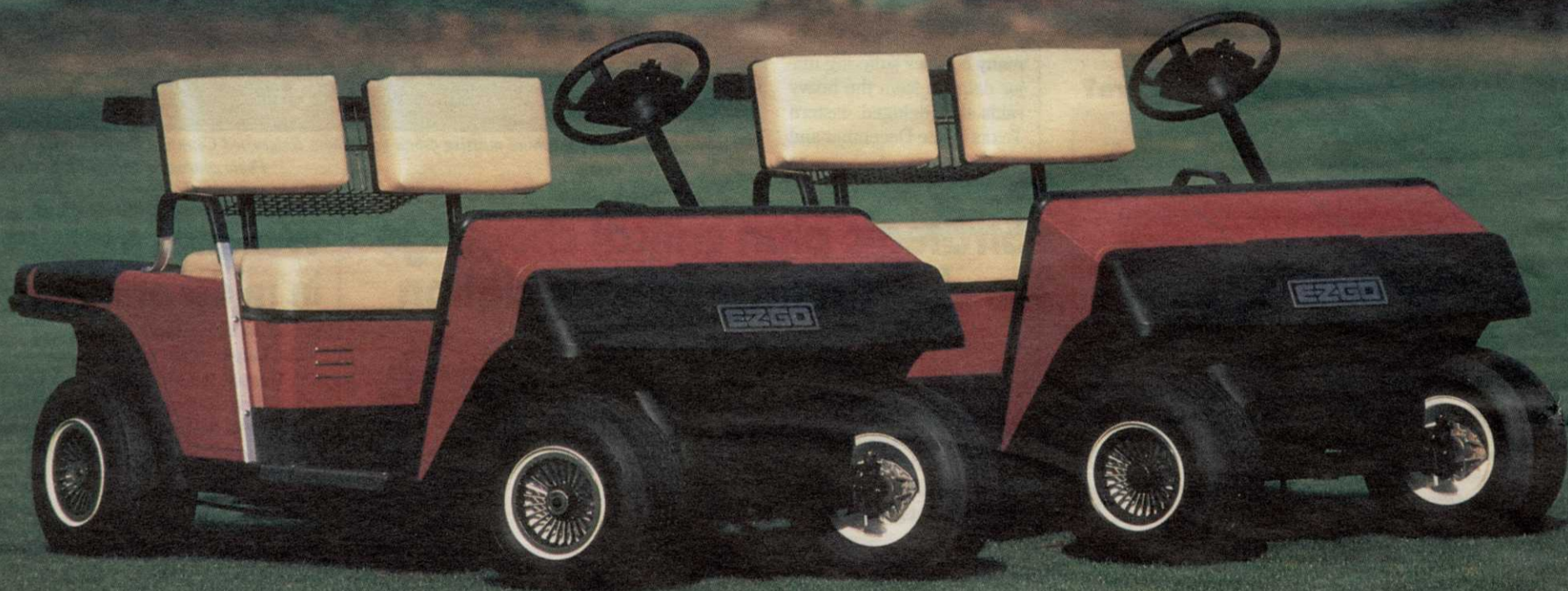
ing their use.

The result could be thousands of unscientific, contradictory regulations making it harder for golf course superintendents and others in the turf industry do their job, according to those supporting

recently proposed legislation allowing federal law to preempt local ordinances.

"We are pushing for uniform pesticide laws imposed by federal and state governments based on good science,

Continued on page 19



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## Hawaiian plan turned down as Japanese anti-golf group arrives

KANEOHE, Hawaii — A proposal to enlarge the 18-hole, par-3 Bayview Golf Course on the shores of Kaneohe Bay here was rejected by the City Council, 9-0.

The council voted unanimously to turn down Pacific Atlas (Hawaii) Inc.'s request for a planned review use permit to expand the course to championship length.

At the same time the proposal was coming before the City Council, a representative of Japan's National Network Against Resort and Golf Course Development was visiting Kaneohe.

The expansion was opposed by area residents who wanted the city to buy the golf course site and turn it into a combination

Hawaiian cultural park and siltation basin. A siltation site at the golf course, virtually on the shores of Kaneohe Bay, could help keep soil runoff and other pollutants from flowing into Kaneohe Bay.

There had been some discussion that the site could be exchanged for a less environmentally sensitive area. The City Council's Zoning Committee recommended last summer that the expansion be approved, but the full council vote was postponed when it appeared that the vote earlier in the month would be 5-4 against the project.

The unexpected unanimous vote against the expansion was attributed to the outpouring of community opposition, some of it heard

in four hours of testimony before the council vote.

Councilman John Felix, considered a swing vote, initially supported the proposal, saying: "We are talking about the expansion of an existing project, which would enable us to have much greater control over the herbicides and pesticides used on the golf course.

"Secondly, the developer has agreed to provide a community benefits package in excess of \$20 million in exchange for council approval of the project."

A handful of Kaneohe residents and construction industry officials also spoke in favor of the expansion, saying a jungle of overgrowth surrounds the area now.

The National Network Against Resort and Golf Course Development, established in 1988, opposes golf course development in Japan and by Japan nationals in other countries. The group is trying to encourage support for two proposed laws in Japan aimed at curbing golf course construction by Japanese firms outside their country.

One law would prohibit Japanese financing of foreign golf courses; the other would outlaw purchase and resale in Japan of golf course memberships in foreign countries.

At the moment, claims group representative Gen Morita, there are 1,800 golf courses in Japan, another 350 under construction and more than 1,000 courses proposed.

## Trouble faces Cosmo World in Nev., Calif.

The giant Japanese firm Cosmo World Corp. is facing trouble on two fronts — in Nevada and California.

Subsidiary Cosmo World of Nevada, Inc., which had been developing a \$600-million project called Silver Canyon near Henderson, Nev., has filed for Chapter 11 bankruptcy.

Cosmo World said the bankruptcy filing won't affect its other U.S. operations — the Pebble Beach Co. in Monterey, Calif., and Ben Hogan Co. in Fort Worth, Texas.

Pebble Beach, embroiled in an ongoing battle with local and state authorities over memberships, has a new nemesis. Monterey County has filed a tax lien against it.

The county contends that Minoru Isutani's company is more than \$3 million behind in property-tax payments.

The lien blocks any sale of the property until the county receives \$365,952 in real-estate transaction fees allegedly due from Isutani's purchase. Contending that the property is not worth what the county claims, Pebble Beach officials want the tax bill reduced.

In Nevada, Cosmo World's bankruptcy petition lists assets of \$40 million and liabilities of \$27 million.

Financial and water problems have slowed the project, which is scheduled to feature a luxury hotel, 2,500 luxury homes and a Jack Nicklaus-designed golf course.

## Arizona community signs Johnson to build municipal course

PINE BLUFF, Ariz. — Pine Bluff residents will soon be playing golf at a new 18-hole championship course, according to city officials who signed on with Johnson Construction of Highland Park, Texas, to begin laying the groundwork for the course before the end of winter. The \$1.2-million, 350-acre golf course should be in play by next fall.

The course will be constructed to U.S. Golf Association standards and will feature a 2,500-square-foot clubhouse, with a small restaurant, meeting room and pro shop. It will be part of the 1,100-acre Regional Park off Highway 65.

Johnson Construction will build the course, and the city of Pine Bluff will make a 12-percent commission on the net profits for the first 20 years of operation. After that, the city will make a 12-percent commission off the gross profits. The city hopes to show a profit within the first 20 years.

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## St. Johns wants Jacksonville out of ads

### PGA complex at issue in Hall of Fame plans

ST. AUGUSTINE, Fla. — The \$896,000 St. Johns County paid the city of Jacksonville last month as a reimbursement for money invested in a 1989 contract that brought PGA Tour Productions to the city and eventually led to the \$1.6-billion PGA complex moving 20 miles south of Jacksonville and 10 miles north of St. Augustine remains a sticking point.

St. Johns commissioners don't

want any Jacksonville promotional link to the Hall of Fame, though Jacksonville Deputy Mayor Frank R. Nero wants to use the Hall of Fame in promotions and is willing to negotiate a contract with St. Johns County.

Replies St. Johns Commissioner Don Herold: "This is our project. I think we need to exclude them."

For the next 30 years, St. Johns County has exclusive control over the use of the Hall of Fame in promotions involving the state, any county or any government within

100 miles of St. Johns County. Commissioners are eager to sell some of those rights to other governments — except Jacksonville in the county of Duval.

To recoup the \$896,000 and perhaps offset another \$800,000 owed the golf association, commissioners hope to create ads promoting the Hall of Fame and surrounding areas to other governments that would pay to be mentioned in the advertising.

However, the mood of the moment is: "Put the ad ax to Jax."

## Correction

In our January issue, Golf Course News incorrectly linked a toxic waste dump in Santa Barbara County, Calif. partially owned by Kenneth Hunter, Jr. and a golf course project in San Luis Obispo County. No golf course is planned for the toxic waste dump site.

Neither the owner of the toxic waste site, a limited partnership nor its sole general partner, are involved in any way with the golf course, according to Mr. Hunter's attorney.

While estimates for clean-up

costs at the dump site have varied widely, there is presently a \$10 million trust funded by the partnership owning the toxic dump which can be used for such purposes if approved by the State of California and the EPA, according to Mr. Hunter's attorney.

Federal EPA lawyers and county attorneys filed suit last August, but have not tried to seize Hunter's assets, according to Tim McNulty, deputy Santa Barbara County counsel.

We apologize for the confusion.

## Unocal gets go-ahead in Fullerton

FULLERTON, Calif. — North Fullerton City Council members voted 4-1 to allow Unocal Land & Development Co. to build 883 homes on a 380-acre oil field as part of a development that includes a 17-acre sports complex, an 18-hole golf course, a hilltop park and 60 acres devoted to a wildlife refuge.

The 187-acre East Coyote Hills Golf Course helps create a greenbelt through the project. There has been public opposition to the additional housing.

One Fullerton resident said, "The ideal world would be if Unocal put in an 18-hole golf course and sports fields and didn't build one house. But we all know a compromise has to be made here."

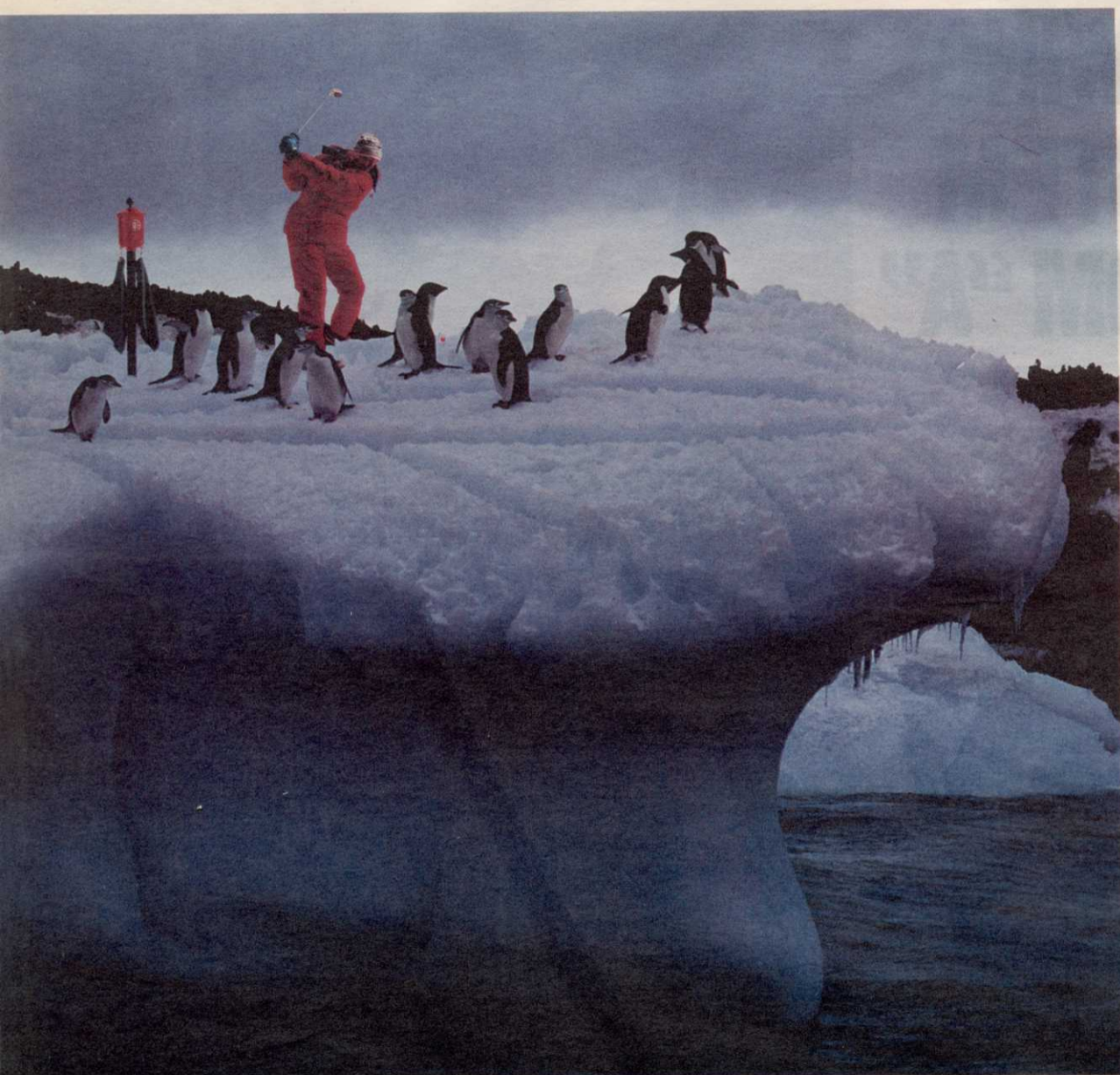
Another compromise is for the birds. Unocal plans to transplant 55 of the oilfield's 106 acres of coastal sage scrub, habitat for the gnatcatcher. Ten pairs of gnatcatchers nest in the scrub. While the gnatcatcher is not on the U.S. Fish and Wildlife Service's endangered species list, the agency has been reviewing the bird's status.

## Garl layout in Vero Beach under way

VERO BEACH, Fla. — Construction was scheduled to begin early in December on the second 18-hole layout at nearby Sandridge Golf Course. The course, designed by Ron Garl of Lakeland, is scheduled to open next December.

The new course will measure about 6,200 yards from the championship tees, compared to the existing 6,600-yard course. It's designed, said Sandridge golf director Bob Komarinetz, as a thinking man's golf course, oriented toward target golf.

The new layout includes the six lakes already on the property, a 5,000-square-foot clubhouse overlooking the 18th green, an expanded practice area and putting green. The pricetag is \$5.5 million, and Komarinetz hopes to add some country-wide events to his club's schedule.



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Pictured above: The inaugural drive at the world's first Antarctic Open.

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## \$100M Indian center in Tulsa would include golf course

TULSA, Okla. — A golf course, hotel and museum are part of a proposed \$100-million American Indian center in Tulsa, designed to honor tribal cultures.

Tulsa has the largest American Indian population of any city except Los Angeles, and is home to natives of 60 tribes. At one time, Tulsa was the meeting point of lands controlled by three major Indian nations — the Cherokees, Creeks and Osage. The world-class institute will

study and celebrate Indian cultures, and is planned by the National Indian Monument and Institute. It's negotiating to purchase a large tract of land in northwestern Tulsa.

The project would include recreational grounds, a visitor center, museum, conference center-hotel, golf course, library-archives, studios, and research facilities. It is being planned by leaders of various tribes, including Cherokees, Creeks and Delaware.

## Superfund site considered for Colo. course

*Former paper mill land also possible for Kalispell 9-holer*

Support for a plan for a world-class golf course at what is now a Superfund site in Anaconda, Colo., seems to be gathering momentum.

The course, which would incorporate ruins of the Old Works, would be built by ARCO and possibly be designed by a group working with Jack Nicklaus.

After the course's design and construction, ARCO would either lease or sell the course to the city. ARCO-funded feasibility studies indicate a course would make money.

Meanwhile, in Kalispell, Colo., the City Council has agreed to discuss building a second public golf course in partnership with the Kalispell Golf Association.

The association already has a management agreement for operation of the city-owned Buffalo Hill Golf Course.

The new course may be sited at a 55-acre mill site owned by Montana Forest Products. At one time, the association wanted to expand Buffalo Hill to 36 holes from its present 27, but had trouble finding room to grow.

No one has put a price tag on the new project. Golf has become a significant part of the Flathead tourism industry, generating millions annually for the local economy, according to the Flathead Valley Golfing Association.

## Whispering Hills refinancing OK'd

INDIANAPOLIS, Ind. — A plan to refinance Whispering Hills Golf Course on the east side of Indianapolis has been approved.

The 20-3 vote allowed for a refinancing plan totaling \$3.5 million for the public golf course, which was supposed to include 80 new homes and be built for \$2.85 million. This is the second time the city has refinanced the debt on the course. Refinancing costs could climb to more than \$600,000.

The course opened nearly two years behind schedule, which caused slower-than-expected development in the surrounding areas and less tax revenue to repay the bonds financing construction. Eighty new homes in a special taxing district were needed to break even, and only 72 have been built.

In addition, Whispering Hills Golf Course is not expected to be able to pay from operating costs until next year. It lost \$35,000 on operating expenses in 1991 and figures to lose \$12,000 in 1992.

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## Houston plans to privatize city's course

HOUSTON, Texas — The Houston City Council voted 10-3 to approve a plan to privatize the golf and tennis facilities at the city's Memorial Park. Houstonian Group Inc. would oversee the golf course and tennis courts and spend \$6 million on park improvements, including a new fitness center.

Opponents pledge to challenge the plan, and the contract will be voided if the group's market study finds little demand for the fitness center.

Parks Director Don Olson says the plan would benefit the city, allowing private money to upgrade facilities while earning the city a percentage of revenues. The city would get a percentage of revenues from the improved operations or \$300,000 a year, whichever is greater, and would still control fee increases at the park. Memorial Park is the fourth Houston park to be privatized.

American Golf Corp. would run the course as a subcontractor after losing in the original contractor's competition. American Golf is responsible for spending \$4 million on golf course improvements. The Houston Golf Association also supplied a losing proposal.

## Private mortgage broker found for Mass. project

GEORGETOWN, Mass. — A private mortgage broker in New York has agreed to finance the Georgetown Club golf course, and construction will resume on the remaining nine holes of the course.

The project includes a clubhouse, bar and grill, 250-person function room, and a health club with pool and tennis court, slated for completion this summer. The first nine holes have been in play for more than a year.

Partners Gene English and Peter Wojtkun expect course construction to be completed before work on the buildings begins. The partners had been trying to find funding to complete the project for more than two years.

## Burlington Island ownership at stake

BURLINGTON CITY, N.J. — Burlington Island might belong to Burlington City after all. After 12 years, the state of New Jersey is ready to negotiate on who controls the tidelands around the island, an issue which had stopped the town's development plans.

The city of Burlington wants to use 100 of the island's 400 acres for family recreation facilities, and the other 300 acres, which include a 100-acre lake, for a marina, golf course, hiking paths, amphitheater and picnic area.

## Annexation would triple Madison neighbor's taxes

BLOOMING GROVE, Wis. — In a move intended to allow Madison to bring city water lines to Yahara Hills Golf Course, Madison officials are proposing to annex 177 acres of Blooming Grove, a little town outside of the city. The annexation

would remove the town's biggest taxpayer from the lists and cost the town one-third of its annual tax revenue, tripling property taxes for remaining residents.

The 36-hole golf course and clubhouse is served by wells, but Madison

is proposing a nine-hole expansion. The \$875,000 expansion will be built on 31 acres the city already owns next to the course. The extra nine holes will be used for lessons and league play, and paid for by greens fees.

In order to annex the acreage, owners of at least 50 percent of the affected area must approve. Because Madison already owns 31 of the 177 acres, approval of just one or two of the remaining landowners could give the entire parcel to Madison.

## Illinois town building public course on former landfill

BLUE ISLAND, Ill. — This community is slated for an 18-hole public golf course now that aldermen have agreed to draft an ordinance issuing \$7 million in bonds to finance the

course.

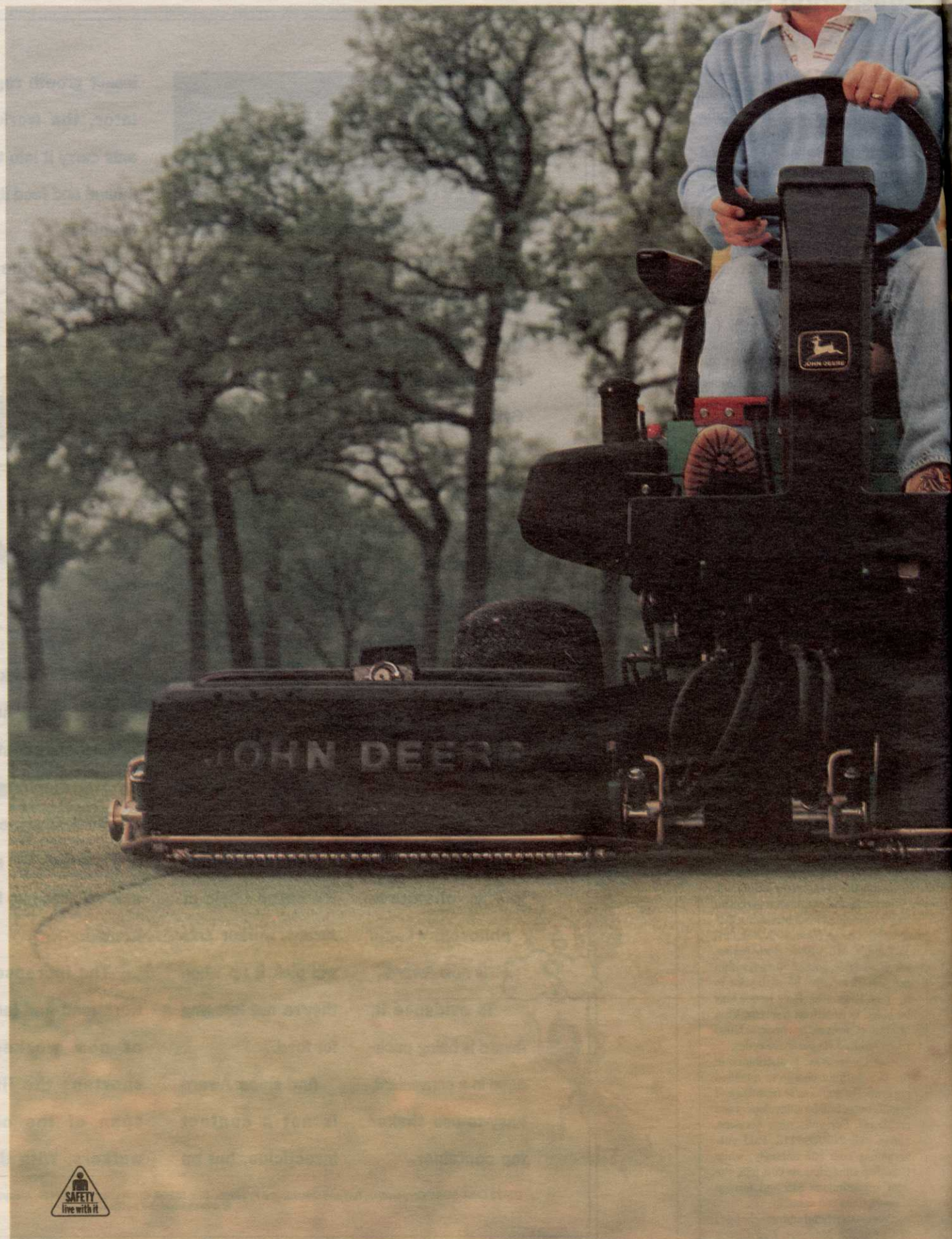
The bonds will be repaid with money generated by the golf course development and should not affect the city's annual tax

levy.

The course, on 138 acres of a former landfill, will be built by Blue T Golf Inc. of Nebraska and include a 3,000-square-foot club-

house, a barn to house 40 electric golf carts, a maintenance building and 120 car parking lot.

Planned completion date is April 1993.



## Fireman buys Willowbend, adds championship length

*Reebok owner puts up \$9M-plus, eyes major tournament in the future*

COTUIT, Mass.—Paul Fireman, chief executive officer of Reebok International Ltd., has completed purchase of the Willowbend Club for more than \$9.1 million.

The process has been going on nearly a year, and the new owner's corporation, The Willowbend De-

velopment Corp., has put more than \$1 million into the course.

Changes on the 14th hole, designed to bring it from a par 3 to a par 4, will bring the course up to a championship level. According to Willowbend Director of Golf Bob St. Thomas, four holes will be changed, moved or altered, and the 17th and 18th holes landing areas will be flattened out, making them more receptive to tee shots.

Course architect Michael Hurdzan, who also designed Dennis Highlands, has already drawn

up plans for the course. A \$2-million clubhouse should be ready for unveiling July 4, complete with a pro shop.

The course will now be totally private, with the 30 original members allowed to maintain their membership and interim members asked to reapply for regular membership. Membership is expected to grow to almost 200 this year.

Reebok has invested heavily in the golf merchandising market, and there is speculation that the company may be seeking to stage a

PGA Tour event at the course.

There is already a Pro-Am event, sanctioned by the Tour, scheduled for July 28. It will feature 15 top PGA pros from the regular and senior tours, and St. Thomas believes it will be an annual event. There will be 60 amateur spots available and the money raised will be given to a charity designated by the Town of Mashpee.

Willowbend will serve as co-host of the Mid-Amateur Championship in October and a regional qualifying site for the U.S. Senior Open.

## Floating green causing tax disagreement

COEUR d'ALENE, Idaho — Ladies golfing at Coeur d'Alene Golf Course may soon be having better luck with the 14th hole.

The hole, billed as the only floating golf green, is anchored 145 yards out into Coeur d'Alene Lake. The distance makes it hard for female golfers to hit to the green, and Hagadone Hospitality, owners of the course, asked for a permit from the Idaho Department of Lands to put a sod-covered pier out into the lake to move the forward tee to within 80 yards of the floating green.

The course, built on the former Rutledge Mill site, is on property purchased for \$4.5 million in September 1987 and now in the middle of a \$9-million dispute over tax values. Owners of the 135-acre course say it's worth \$3.17 million; Kootenai County puts the value at \$12.12 million. A state Board of Tax Appeals ruling on the debate is not expected until next month.

Most of the debate focuses on the 5-million-pound floating green on the 14th hole. Hagadone Hospitality says the man-made green should be valued at \$1 million, with the city willing to compromise at \$1.25 million.

Overall, the company wants a per-hole assessment of \$176,000, while the county assessor puts the tag at \$662,464 per hole. The assessed value of the land and improvements at the course is about six times more than any other golf resort in Idaho.

County Assessor Tom Moore emphasized that the floating green "throws things way off." The value of the structures on the property is not contested.

Tax appraisers claim the taxes are high because of the resort's unique amenities: water taxis, over-the-water driving range, executive rest rooms beneath the tees at the 7th and 10th holes, 4-1/2 miles of extra-wide cart paths and a computerized irrigation system.

## Greenman Group agrees to pact

JOHNSON CITY, Tenn.—Back in 1989, the Johnson City Commission agreed to the concept of a second public golf course, this one with a planned residential community. A developer would build the course and houses, and the city would then lease-purchase the course from course revenues.

Those plans seem to be going ahead now that the Greenman Group of Florida has been hired to build the residential golf community in conjunction with a private development. The earliest the \$4-million course could open would be the fall of 1993.

The city's other public course, Pine Oaks Municipal Golf Course, hosts more than 60,000 rounds per year.

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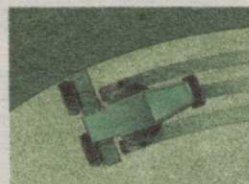
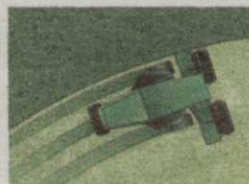
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## Members hope to prevent foreclosure

*Hend-Co Hills CC group seeking investors to save club from FmHA action*

BIGGSVILLE, Ill. — The Hend-Co Hills Country Club, a community resort under foreclosure by the Farmers Home Administration, might be getting a new lease on life if club members can form a corporation to pay off the debt.

The 120-acre facility offers tennis, swimming and camping in addition to golf. Built in 1969, it features a clubhouse, pool, cart shed, pro shop, maintenance shop, campgrounds, showerhouse and snack shop.

Wendell Fisher, a Hend-Co Hills member, is one of five men who formed an initial group looking for fellow investors willing to put up \$4,000 each for the club. If 100 investors can come up with \$400,000, says Fisher, they can pay off the debt, repair the course and buildings, maintain the country club and pay stockholders a dividend.

In the meantime, the club could be sold to a company that offered 50 cents on the dollar for the facilities.

"I think it's very important for us to keep this as a community recreation center if at all possible," said Russel Galusha, club president and athletic director at Tri-Valley Middle School. "It's a nice little course. Definitely, there's some work that needs to be done, but we'd like to maintain it if we could."

Area people like the club's friendly atmosphere. The place, they say, has no snob appeal whatsoever.

## Adult community in N.J. buying course from owner

MONROE, N.J. — The Rossmoor adult community voted in December to buy its golf course from its owner, Guardian-Development Inc., for \$990,000. The community of 2,200 households already owns all its other amenities, including the clubhouse, pool, tennis court and gatehouses.

A vote on buying the golf course was necessary because the purchase price exceeds five percent of the community's annual budget.

Residents feared the owner would sell to an outside party. In 1991, 346 members paid \$1,100 each in membership fees, and greens fees from non-members totaled \$55,000. Reported expenses reached \$400,000, twice as much as the costs three years ago.

The vote starts an acquisition contract that includes conditions, such as construction of a golf course maintenance building, financial credits toward the purchase of the course for 57 condominium units that have not been built, a survey to determine the course's acreage, and approval from the state Department of Environmental Protection, Department of Community Affairs, and the Federal Housing Administration.

## City's bond sale paves way for Pleasure Island

PORT ARTHUR, Texas — Pleasure Island will gain an 18-hole professional-caliber golf course now that nearly \$9 million in certificates of obligation will be issued by the city. The bond sale is scheduled to take place in February.

Construction will also include home sites at Mariners Cove, and revenues from course green fees are expected to pay back the debt in 15 years.

The decision to develop Pleasure Island is said to be the biggest thing on the island since the Supreme Court decided in 1970 that the island belonged to Texas and not Louisiana.

## Governor's freeze puts Pittsburgh course on hold

HARRISBURG, Pa. — When Pennsylvania Governor Casey froze the state's appropriations to set aside \$130 million to guard against a worsening economy, a golf course at the Pittsburgh Symphony's proposed summer home in Bedford County was also put on hold.

The summer facility, which includes a performing area for the orchestra, a hotel, and a residential community as well as the golf course, was priced at \$100 million.

The state was contributing \$2 million as start-up money for the Bedford center.

## Panel established to oversee course

WEST DONEGAL TOWNSHIP, Pa. — An eight-member committee made up of West Donegal Township and Elizabethtown Borough citizens will oversee development of an 18-hole golf course proposed for the two municipalities.

The course, on 140 acres, will cost about \$4.9 million.

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CIRCLE #106/GCSAA BOOTH #2756

GOLF COURSE NEWS



## Four major Washington golf projects moving forward

A landfill site in Newcastle, Wash., has been sold to a Canadian golf-course development company, Burrard International of Vancouver, B.C.

The Robert Trent Jones II Group confirmed that it has been enlisted to design the 19-hole championship golf course, which should open by 1994. There are no plans for a residential community at the site, about 15 miles east of Seattle.

The public course will be built on 170 acres of the 269-acre site, which had been used for more than two decades as a dump. It was closed to public dumping late in 1990 and since then has accepted only highway excavation dirt from an interstate project.

### Utah cities investigate course viability

SALT LAKE CITY, Utah—Davis County had a hot golf year in 1991, with four cities considering new 18-hole courses and another city planning an expansion.

Clearfield, North Salt Lake, Syracuse and East Point are studying their options and West Bountiful is expanding its current nine holes to 18.

The 168-acre North Salt Lake course, with a \$5.8-million budget, is expected to draw 85,000 nine-hole rounds per year, based on course operations at places with similar elevations.

Higher elevations influence the number of playable days. If all goes as planned, the course would open July 1, 1993.

The project includes 300-400 additional homes on surrounding land.

### Private facility OK'd in Vero

VERO BEACH, Fla. — The Indian River County Planning and Zoning Commission has approved a private country club on 233 acres in Vero highlands. Indian River Country Club would include 300 homes and an 18-hole golf course that crosses Highland Drive.

Three phases of construction will be completed in 1996. Bob Swift and Jim DiMarzo, partners in the development company Lodar Inc., are in the process of purchasing the land from General Development Corp.

### Lakeville, Minn., approves course

LAKEVILLE, Minn. — A 303-acre project, Crystal Lake Golf Estates, has been approved by the Lakeville City Council.

An 18-hole golf course and the 178 single-family houses and 89 townhouses will be built.

Work will start on the \$4.6-million course this spring and it should be ready for play in 1993.

### EAGLE'S NEST MOVES COURSE

In Sequim, developers redesigned the 1,900-acre Cape Discovery Resort to accommodate a 162-acre forest preserve that held wetlands, unstable bluffs and two bald eagle nesting sites. The preserve will remain wild in perpetuity.

The developers, Peninsula Partners, had to resite a 150-room lodge, an 18-hole golf course and housing next to the links.

Meanwhile, two of the three major investors, Mitsubishi Inter-

national Corp and Shimizu Land, want out. And basic control over the land, part of a state park sold to the partnership in a deal between the partners and the state Parks and Recreation Commission, is being questioned in court.

If that's not enough, 35 acres in the middle of the resort is owned by Northwest Tech, a firm that bonds and shapes metals with controlled explosions loud enough to jar nearby homes. Peninsula Partners is negotiating with the firm about a move.

### COURSE CONDEMNATION ASKED

University of Washington regents were asked to condemn Wellington Hills Golf Course in Snohomish County for use as a branch campus.

UW officials want to site the Bothell branch on the golf course, but the university and the 44 course owners have not been able to agree on a price.

Under state condemnation law, UW makes a final offer and then asks the state attorney general to begin proceedings. A Superior

Court judge would then decide fair market price. UW has already paid a local family about \$600,000 for 20 acres next to the 80-acre course.

### ECHO FALLS PROCEEDS

A demand for high-quality public golf courses in the Puget Sound region has led to Echo Falls, a 200-acre planned community featuring 79 homes and an 18-hole golf course and country club.

The par-70 course, designed by PGA professional and course architect Jack Frei, will be public.

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## Expansions, renovations being undertaken in Illinois

Numerous plans are on drawing boards throughout Illinois as course owners discuss expansions and renovations.

A plan to add nine holes to Rend Lake Golf Course, near Benton, will bring the course up to the originally planned 27 holes. Only 18 were built when architect Lawrence Packard of Chicago designed the course. He will be consulted on the feasibility of expansion.

The project, estimated at between \$600,000 and \$1.5 million, might be financed by grants, noted the Conservancy District board. Lack of nearby lodging has hindered growth around the course, and the board is considering building cabins for rent.

### COLLINSVILLE AND COAL VALLEY

In Collinsville, initial plans are underway on a proposed 18-hole course on the city's east side. The City Council voted to discuss with landowners and developers the feasibility of the project after hearing that the golf course in Brooklyn Park, a suburb of Minneapolis, brought the city \$75,000 profit in its first year of operation.

Goforth Corp. of Chicago is interested in building a public 18-hole course and related developments in Coal Valley. PGA Pro Hale Irwin may be involved in the project. Coal Valley is home to the Oakwood County Club, which sponsors the Hardee's Golf Classic PGA tournament each year.

The tiny village of Wauconda in Lake County is faced with a precedent-setting 840-unit development, complete with an 18-hole golf course, on 440 acres of the Roney Farm.

Wauconda's plan commission members were looking at the development plans prior to any decision. A consultant hired to look out for village interests noted that the development would be precedent-setting for the Wauconda area.

He said: "The village of Wauconda is unusual when you look at it in the context of Lake County. The county has been rapidly urbanizing. Wauconda has not experienced a great deal of growth. Most of Wauconda has seen developments of small magnitude."

### REFERENDUM UPCOMING

In Carol Stream, residents will vote in March on a referendum to build a nine-hole, 114-acre public golf course complex.

The complex would include a lighted driving range, three multi-use athletic fields, baseball diamonds, tennis courts, a clubhouse and winter ice skating and cross-country skiing.

It would cost about \$5 million to build, not including the cost of the land. With a course fee for one round of golf at about \$7.50, and other use fees, the complex could become self-supporting and turn a small profit within five years.

If residents approve the referendum, owners of \$100,000 homes

would see an annual tax increase of about \$40 to help retire the debt.

### PARK DISTRICT MAY BUY IN

The Oswegoland Park District may become co-owners of an Aurora golf course, the Orchard Valley Golf Course. The \$7-million, 18-hole course is scheduled to open in July of 1993.

Oswegoland Park District already co-owns Fox Bend Golf Course with the Fox Valley Park District, which would become co-owners of Orchard Valley. Co-

ownership allows golfers residing in the districts to play at the courses at resident rates, and allows both districts to maximize staff and equipment and share in bulk purchases.

Existing profits from Fox Bend could be the Oswegoland Park District's main source of funding to make payments on the Orchard Valley contract.

### LOCKPORT VOTE POSSIBLE

Lockport Township in Will County is putting a public 18-hole

or 27-hole golf course construction to the voters on a November ballots if proponents can drum up enough support.

The course, estimated at \$5 million, would be built on 237 acres owned by the Illinois Department of Corrections immediately outside the Crest Hill prison. The land would have to be purchased by the Park District.

In 1990, voters rejected a district plan to sell \$6 million in bonds to build a course and recreation center and improve the existing

Dellwood Park.

Lack of financing has delayed a 1,500-unit project to be built around three nine-hole courses outside Lockport.

The Broken Arrow project needs \$8.5 million for sewer lines, roads and other improvements. Robin Hill Development Co., based in Wheaton, specializes in golf course communities.

It has already acquired or purchased options on the 575-acre site for Broken Arrow, and won annexation and zoning approval.

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# California development on slow but steady pace ahead

Golf course developers all over California are slowing their pace — but not stopping altogether — as the recession and housing slump bite into the market.

In Desert Hot Springs, a Beverly Hills developer, Edwin Vlessing, still wants to have his 2,200-acre Rancho Royale project annexed to Desert Hot Springs and approved for 9,000 homes. Rancho Royale, with 20,000 residents, would more than double the city's population of 12,300.

"We really hope to change the image of the city of Desert Hot

Springs and bring the city into the 21st century," Vlessing said. He hopes to have the project completed within 10 years, though it might take 30 years, depending on the region's economy. The \$1-billion price tag is being picked up by Asian investors, leaving Vlessing's own company debt-free.

The 3-1/2-square-mile development, which straddles Highway 62, will contain elementary and middle schools neighborhood shopping areas and a regional mall, and three golf courses. Desert Hot Springs

Mayor John Isaacs said the city wants to approve the merger soon.

## WILDWING CLEARED FOR TAKEOFF

In Woodland, an 18-hole golf course, country club and 338 homes making up a development called Wildwing cleared six years of legal and bureaucratic hurdles to gain county approval recently.

Pinehurst Land and Development may be able to start construction on the 237-acre project by the end of the year. Turmoil within the county Planning De-

partment and new environmental concerns led to much of the delays.

Pheasant Glen Golf Course, another new 18-hole course proposed for Yolo County, will use 150 acres of a 441-acre parcel on Reiff vineyard land northwest of Woodland.

## PALMDALE PLANS

In Palmdale, a flood control plan includes a \$900,000 basin in the Quartz Hill area on land proposed for a private golf course. Ahmanson Developments Inc., the company planning the course for the Rancho

Vista community, will pay \$150,000 toward the 76 million-gallon basin.

## ENVIRONMENTALISTS RISE UP

In Redwood City, 25 groups representing environmentalists, joggers, horseback riders and others announced their opposition to a golf course planned for San Mateo County's Edgewood Park.

The nine-hole course would disturb too much of the 467-acre park, known for its carpets of wildflowers and views of the bay, say opposition members.

Supervisors support a golf course because of the increasing popularity of the sport. Golfers have long asked the county to build a public course because private links are too crowded and expensive.

The county would lease the acreage to the developer of the \$2.5-million course. The course is planned for only a fraction of the entire park, but most of the remaining land has steep ravines and is too rugged for recreation.

Additional impact studies would have to be completed before the course would be built. The park draws 50,000 people a year.

## WEATHER DELAYS HARMFUL

The Madera City Council learned in November that the city's new golf course needed \$440,000 to meet its loan and \$50,000 to stay open. After the city accepted the course from the contractor last December, a freeze ruined the putting greens.

The course opened in June, but autumn income fell below projections. The chief groundskeeper told council members that 75 percent of the 12,000 sprinkler heads on the 150-acre course were in the wrong place and many trees died because the sprinklers didn't water them. Irrigation and rainstorms flood the course.

## \$415-MILLION PROJECT AIRED

A new \$14-million course for Carlsbad at Lake Calavera is part of a 20-year, \$415-million capital improvement program for the city.

The plan calls for 185 projects. During the public hearings for the capital plan, speakers called the golf course financially questionable, water-guzzling and environmentally damaging.

## Panel to study Ore. golf demand

MEDFORD, Ore. — A Golf Course-Resort Committee has been formed by the Chamber of Medford/Jackson County in Oregon to respond to the demand for more facilities.

The committee was formed after the chamber's convention center consultants, Shiels & Oblatz, surveyed associations on reasons why they didn't consider the Medford area for conventions. One of the main reasons was lack of a resort.

Central Oregon ranks higher with business associations, partially because of the availability of golfing.

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## Bloch poised to succeed Spaeth as president of U.S. Golf Ass'n

### *New slate of officers stands for election*

FAR HILLS, N.J. — U.S. Golf Association members were to vote Feb. 1 whether Stuart F. Bloch of Wheeling, W.Va., would succeed C. Grant Spaeth as president. Spaeth, of Palo Alto, Calif., was retiring, according to custom, after serving two one-year terms.

The election took place during the 98th annual meeting of the USGA, at Palm Beach, Fla.

Other officers nominated are: Reg Murphy of Baltimore, vice president; M.J. Mastalir Jr. of Denver, vice president; Judy Bell of Colorado Springs, Colo., secretary; and F. Morgan Taylor of Hobe Sound, Fla., treasurer.

Eight others have been re-nominated to the Executive Committee: Raymond B. Anderson of River Grove, Ill.; Thomas Chisholm of Birmingham, Mich.; D. Ronald Daniel of New York City; Trey Holland of Indianapolis; Paul G. Jenkins of Palm Springs, Calif.; John D. Reynolds III of Augusta, Ga.; Gerald A. Stahl of Rochester, N.Y.; and Peter T. Trenchard of Sister Bay, Wis.

In addition to Spaeth, both J.P. Diesel of Houston and Eugene M. Howerdd of Atlanta have retired from the Executive Committee. Nominated to succeed them are James A. Curtis of Seattle, John F. Merchant of Bridgeport, Conn., and Reed K. Mackenzie of Chaska, Minn.

Since becoming a member of the Executive Committee in 1985, Bloch has served on 15 committees. Most recently he has been chairman of the Championship Committee in 1990 and 1991 which, among other competitions, is charged with conducting the Open. He has also been chairman of the Implements and Ball Committee; the Mid-Amateur Committee; and the International Team Selection Committee. Bloch served as a vice president since 1989, and before then as secretary, in 1988.

A member of the Broadmoor Golf Club, in Seattle, Curtis was a founding member and member of the Executive Committee of the Pacific Northwest Golf Foundation, and a former director and member of the Executive Committee of the Pacific Northwest Golf Association. An actuary, Curtis is chairman and chief executive officer of Milliman and Robertson, Inc., a consulting organization.

Born and educated in Greenwich, Conn., Merchant studied at the University of Connecticut, then went to Virginia Union on an athletic scholarship. In 1958 he graduated from the University of Virginia's School of Law. He is a partner in the firm of Merchant

and Rosenblum, of Bridgeport, Conn.

Mackenzie has been a member of USGA committees since 1978. Last year he served as general chairman of committees for the United States Open Championship, which was played at Hazeltine National Golf Club, in Chaska, where he has been a member for many years.

He served as president of the Minnesota Golf Association from 1988 through 1990 after first holding the offices of secretary-treasurer and vice president. An expert on the rules of golf, he has served on the Rules Committees of USGA competitions since 1978 when he was appointed to the Junior Amateur Championship Committee.

## Giesenhagen named manager of women's regional affairs

FAR HILLS, N.J. — The United States Golf Association has appointed Maggie M. Giesenhagen manager of women's regional affairs.

Giesenhagen joins the USGA staff after serving as executive director of the Colorado Women's Golf Association for three years.

The announcement was made by Anthony J. Zirpoli Jr., USGA director of regional affairs. "Maggie's appointment represents the USGA's commitment to help continue the

current boom in women's golf all across the country," Zirpoli said.

Giesenhagen will be based in Colorado and cover the West. She will assist regional and state women's golf associations, and work with the USGA's Women's Regional Affairs Committee.

A member of the Broadmoor Golf Club in Colorado Springs since 1967, Giesenhagen graduated with a bachelor's degree from Ohio State University in 1966.



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**The Poly-S difference: a unique multiple coating system.** What makes Poly-S technology revolutionary is a unique multiple coating system that determines the rate of nutrient release while improving handling and application of the fertilizer.

A high-quality nutrient substrate core is covered first with a layer of sulfur and then with a proprietary polymer that protects the nutrients and, in combination with the sulfur layer, determines the rate of release.

By varying the levels of each of the coating components, Poly-S technology offers unprecedented flexibility in "dialing" the release rate appropriate to different applications. No other fertilizer

## Oak savanna object of redesign

SANTA CLARITA, Calif. — A Santa Clarita developer will redesign a golf course for the second time to preserve an oak savanna. The plans call for an 18-hole course and 1,880 housing units to be built on 800 acres in portions of a Significant Ecological Area near Magic Mountain.

The developers wanted to cut 148 oak trees to make way for nine holes of golf and some housing.

## Hawaiian agency charged with golf policy

### State report says gov't must be more restrictive

The Hawaiian Legislature has charged the Office of State Planning with creating new golf course policy recommendations, the result of recommendations from a state-funded report.

Most of the recommendations would make it somewhat harder to create new golf courses. There are 68 golf courses in Hawaii, 13 of them on the Big Island, with 95 more proposed for Hawaii, 31 of them on

the Big Island.

The city and county of Honolulu have been charging impact fees, development taxes and community benefit assessments, all special fees.

Golf course developers now must supply an environmental impact statement, but the state report says the government needs to be more restrictive, saying there should be no new golf courses in conservation districts and only very limited golf development on agricultural land.

A final report will include criteria for establishing areas of development.

One new golf course proposal, part of a development, has become part of the solution.

A semi-municipal golf course at the Keauhou Kona Resort at Kealahou will include a leach field for a \$42 million sewage treatment plant.

Effluent from the plant is to be used to irrigate the course. The plant is under contract to provide a million gallons of effluent daily.

## Harry Eckhoff dies at 88

JUPITER, Fla. — Col. Harry C. Eckhoff, whose career with the National Golf Foundation spanned 31 years, died Dec. 25 at his home in Lake Park, Fla., after a prolonged illness. He was 88.

He is survived by his wife, Jo, and two sisters, Violet Eckhoff and Dorothy Owen, both of Kansas City, Mo.

"Other than Herb and Joe Graffis, who founded the NGF back in 1936, I can't think of anyone who has had more influence on the foundation than did Harry Eckhoff," said Joseph Beditz, NGF president and chief executive officer. "Harry was a walking encyclopedia of golf course development information and a great communicator, which was of tremendous value and help to all of us who had the good fortune of working with him. He also touched the lives of hundreds upon hundreds of NGF members who sought him out over the years for his special expertise ... and I know the news of his passing has saddened them as well."

Col. Eckhoff retired from NGF in 1988. He joined the foundation in 1957, following successful careers as a band leader, teacher, writer, and a colonel in the U.S. Air Force.

He served in many capacities, beginning as a field man and East Coast director, then two years as executive director before moving onto director of information services, and finally to director of golf facility development in 1976. In this capacity, he oversaw the vast library of information the NGF has on golf course development.

A prolific writer and editor, he was responsible for creation of *Planning and Building a Golf Course* and the *Golf Operations Handbook*, two works that remain the cornerstones of NGF's library of publications.

The NGF established the Harry C. Eckhoff Award in 1979, to recognize excellence in local and regional golf journalism.

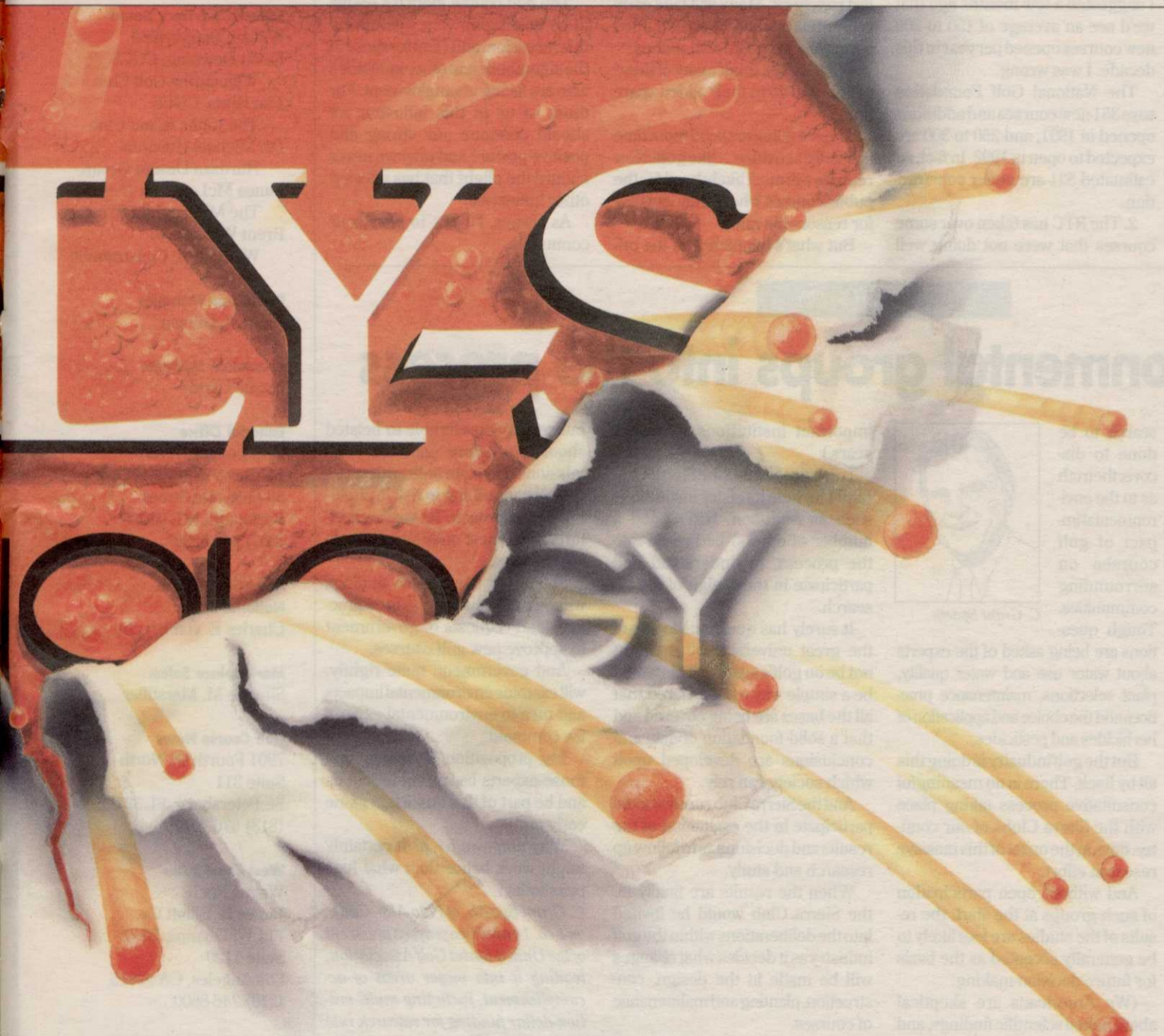
## Wetlands

Continued from page 1

are now abiding by the 1987 wetlands manual — have proposed maintaining the current regulatory definitions of wetlands. But they propose adding a new section to their regulations that would describe the identifying characteristics of wetlands by incorporating the central components of the proposed manual. In addition, the Army proposes to amend the Cod of Federal Regulations to include the entire federal manual when it is finalized.

Proposed revisions to the manual were first published last Aug. 14. A 60-day public comment period was later extended until Dec. 14 and again to Jan. 21.

The newest proposal contains criteria for determining the presence of hydrology, vegetation and hydric soils — all of which determine if an area is a wetland.



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# Much of golf industry untouched by recession

By Charles von Brecht

Depending on where and when you read this, you're most likely going to or coming from the GCSAA show. For those of you not attending this year's event in New Orleans, I can safely say that you're missing quite an extravaganza.

As we go to press, the latest GCSAA report says more than 16,000 participants are expected. It also states that 95 percent of available exhibit space is rented; 550 supplier companies are going to participate; and there are 80 first-time exhibitors.

This doesn't sound like a recession, does it?

I recall a quick exhibitor count from 1989 (our first time at the show) of about 400. That's a 37.5-percent increase in three years!

I will be interested to talk to the new exhibitors to see what they are peddling and why they have come to the show. My guess is, they have products or services marketed to

other industries that are not faring so well and are looking to our industry as a new market.

Is the golf course industry weathering the recession as well as it seems to be? I think it is ... and here's why.

1. Golf courses are still being built and new courses are opening. I suggested a few months ago that we'd see an average of 150 to 200 new courses opened per year in this decade. I was wrong.

The National Golf Foundation says 351 new courses and additions opened in 1991, and 250 to 300 are expected to open in 1992. In fact, an estimated 531 are under construction.

2. The RTC has taken over some courses that were not doing well



Charles von Brecht

and selling those properties (often at bargain prices) to qualified owners and management groups who know how to make the operations profitable.

3. The recession has definitely hurt many of this country's big corporations, which, in turn, has led to people losing their jobs. General Motors, for example, says it's going to lay off 75,000 employees over the next few years.

This is staggering! But from what I read, none of these 75,000 will enter unemployment with only their last paycheck. Many will take early retirement; some will get extended severance from GM and unions.

What do you think many of these people will do in their added spare time?

They're going to spend more time in leisure activities ... like golf! New retirees will most likely head for the public courses where they can play for reasonable rates.

But what's happening at the pri-

mate facilities around the country? No doubt the new real estate-related private clubs are hurting. (See related story on page 31.)

Many have closed down totally until new buyers are found. What about the old-line clubs in large cities? Friends in St. Louis tell me the waiting period at a few of the clubs is not as long, but you're still going to wait at Old Warson and Belleve.

And I'll bet there aren't too many members leaving Augusta National, Pine Valley or Cypress Point!

The golf course industry seems to be holding up very well during this recession, and I feel for those in the automobile and other industries who are facing unemployment. For those of us in this industry, we should continue our strong and positive posture and pray we never endure the plight that has affected other industries.

As always, I'd like to hear your comments.

## GUEST COMMENTARY

# Invite environmental groups into the process

By C. Grant Spaeth

Those who desire to preserve and expand the game of golf in this country appear to be on a collision course with those whose primary interest is with the environment.

But a confrontation need not occur. Instead, there could be a sensible, orderly and voluntary reconciliation. (At a minimum, the outrageous screaming matches before planning authorities by zealots on both sides, with positions born from emotion rather than reason, might be avoided.)

Golf certainly does not want to pose dangers to public health, wildlife or the community in any other ways.

The environmental movement does not want block enjoyment by millions of Americans from a game that is enjoyable, outdoors and collegial in spirit.

So there is the making, in this writer's view, of a treaty which accommodates all interests. How do we start the process?

Here may be one modest step: Golf is now causing serious re-

search to be done to discover the truth as to the environmental impact of golf courses on surrounding communities. Tough questions are being asked of the experts about water use and water quality, plant selections, maintenance practices and the choice and application of herbicides and pesticides.

But the golf industry is doing this all by itself. There is no meaningful consultative process taking place with the Sierra Clubs of our country, now, at the onset of this massive research effort.

And without open participation of such groups at the start, the results of the studies are less likely to be generally accepted as the basis for future decision-making.

(We Americans are skeptical about naked scientific findings, and with good reason, as we have experienced scandals and mistakes from



C. Grant Spaeth

important institutions in recent years.)

I recommend that the Sierra Club (and I include its sister institutions such as Audubon, NRDC and a number of others) be invited into the process, to understand and participate in the design of the research.

It surely has questions to ask of the great universities that might not be on golf's agenda. This would be a simple way to be assured that all the bases are being covered and that a solid foundation of data and conclusions are developed upon which society can rely.

And the Sierra Club surely should participate in the evaluation of the results and decisions as to follow up research and study.

When the results are finally in, the Sierra Club would be invited into the deliberations within the golf industry as it decides what changes will be made in the design, construction, planting and maintenance of courses.

It would and should be a consultative process, not necessarily easy,

but certainly preferable to belated shoot-outs before planning commissions and state authorities.

Golf has nothing to risk in pursuing this approach. Its research efforts are honest ones—simply seeking answers.

Sooner or later, those findings will be the basis for changed practices and requests of government to approve new golf courses.

And government, quite rightly, will examine environmental impacts and turn to environmental experts for comment.

My proposition is simply that those experts be invited to join us and be part of this important game early on.

Why don't we try it? It certainly might work better than what happens today!

C. Grant Spaeth, of Palo Alto, Calif., on Feb. 1 ended two years as president of the United States Golf Association, leading it into major areas of accomplishment, including multi-million-dollar funding for research into turfgrasses, water resources and the effects of chemical.

## COMMENTARY

# Never doubt the capacity of golf development

People around the golf industry started snickering three years ago when, after the first Golf Summit, the National Golf Foundation made—and has continued to make—the bold pronouncement that we needed to add a course a day in the United States through the year 2000.

The snickering wasn't necessarily because people felt the courses were not needed. Rather, the mere thought of one course opening every day seemed absurd.

Think not on where the money would come from. Rather, it seemed there weren't enough designers and builders with the know-how to construct that many golf courses.



Mark Leslie

Are you seated? If so, remain there. If not, do so or find a soft place to fall.

According to the latest data from the NGF, 351 new courses and additions opened in 1991. That represents the most since 1971.

There's more. According to NGF figures, another 583 courses are under construction.

Forecast Golf Marketing & Financial Systems, Inc. has some different, but no less heartening

figures.

The Richmond, Va., firm lists 321 courses opening in 1991 and 577 under construction or on hold. Forecast adds that 974 courses have been planned or approved.

Daily-fee facilities continue to be stressed around the country—far outnumbering municipal, private, resort and military. And municipal courses are growing in number. So, more affordable

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## Add sulfur if you want a truly 'complete' fertilizer

To the editor:

As a turfgrass specialist for 15 years, I have been interested in the nutritional needs of turfgrass in order to maintain optimal health and minimize the negative impacts of a wide array of stressful situations. The terms macro-nutrients, micro-nutrients, and trace elements are all relative terms that have the capacity to inaccurately place values on certain nutrients as they may relate to proper plant nutrition. The most important nutrient(s) to any plant must be that one or more which is found to be limiting.

The current definition of macro-nutrients (aside from C-H-O) consists of the major nutrients N-P-K and represents those elements historically accepted as required for a "complete" fertilizer.

I suggest that in the specific case of turfgrass nutrition four, not three, primary nutrients are critical to the healthy completion of the normal life cycle. Sulfur should be the fourth major nutrient required of turf fertilizer before it should be termed "complete."

Sulfur is usually found in tissue analyses of healthy turfgrass in amounts greater than that of phosphorus. Sulfur in the plant-available sulfate form is also generally much more lacking in most soils than are the other two "secondary nutrients" — calcium and magnesium.

The nutritional value of sulfur for turfgrasses has been overshadowed for far too long by sulfur's use as a soil amendment to modify soil pH. Yet sulfur is responsible for a great number of plant processes of particular importance to turfgrasses versus other crops.

Sulfur is a major factor in turf's ability to provide for improved drought tolerance, winter hardiness, color and density. This is in addition to its important role in many metabolic functions that are commonly accepted as beneficial for other plant groups.

Turfgrass management, and so turfgrass fertilizers, have evolved as an off-shoot from strictly agricultural models, and maybe it's time we turfgrass managers recognize and treat turfgrass as the unique "crop" it is.

I believe fertilizers manufactured for and intended to be applied to turfgrass should be described in terms of their nitrogen, phosphorus, potassium and sulfur content. The N-P-K-S designation for a "complete" turf-type fertilizer will be of far more value to serious turfgrass nutritionists. Consumers also should have every right to expect the "complete" fertilizer they are buying for their lawn is just that — complete with the four basic nutrients most important and most often found lacking for optimum turfgrass health and nutrition.

Sincerely,  
Dan Nason  
Great Salt Lake Minerals Corp.  
Overland Park, Kan.

## No consistent effort made to pull together research

To the editor:

As a member of a family that has been in the golf business since the 1920s and as an avid golfer with a degree in environmental studies, I am concerned about environmental issues and the golf industry.

After conversations with a number of industry members, it has become apparent that no consistent effort is being made to coordinate or promote environmental efforts industry-side. There is already a tremendous wealth of research available offering studies on pesticides, fertilizers, water use, etc.

Unfortunately, the golfing public (and, as importantly, the non-golfing public) are at the mercy of groups who distort/dilute scientific findings to serve their purposes (both pro and con golf).

We need a coordinated effort to share information among industry professionals, continued research in the field and in the lab, education of legislators and regulators as to the benefits of environmentally responsible golf courses, and a good public education/reasons campaign that shares vital information about golf's important role in communities.

Other industries have taken a pro-active stance in addressing environmental issues. The paper, food, plastic, drug, oil and gas, clothing, and chemical industries have all recognized that environmentally savvy consumers are here to stay.

Golf is no different. Even more than some

of the above-mentioned industries, golf courses are a "lightning rod" for people with environmental concerns. (Incidentally, in a recent national poll, 78 percent of Americans considered themselves "environmentalists.")

We need to provide consistent information, education and marketing efforts to golf industry professionals and the American public to promote golf courses as the good neighbors they can be.

Make no mistake about it, golf as an industry is as vulnerable to public opinion as any other in this country. Policymakers, legislators and regulators react to a vocal public.

If that public remains uninformed and vulnerable to misinterpretation of facts surrounding the golf industry, the results may include loss of development permits, an increase in fines, exorbitant water-use fees, decline in the golfing public, etc.

The time is right for pro-active and creative programming that serves the needs of the golf industry and provides the American public with a fair representation of golf courses as exemplary community neighbors.

Sincerely,  
David L. Bennell  
Portland, Maine

## Comment

Continued from page 14

rounds, and shorter waits, should be available to people in many areas.

The entire industry should pay the highest compliments to the men and women who have strived together, worked in unity despite the naysayers, and accomplished more than perhaps even the optimists had dreamed.

And while small businesses to major industries are faltering nationwide, we should all thank God this industry, and its jobs, have been spared.

## New courses and additions

Type	Open		Under construction	
	1991	1990	1991	1990
Daily fee	226	166	348	301
Municipal	52	37	82	71
Private	73	86	150	184
Unknown	—	—	2	4
Totals	351	289	583	560



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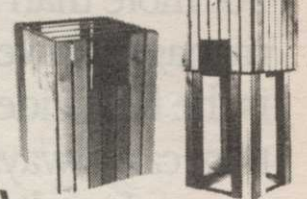
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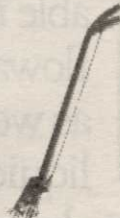
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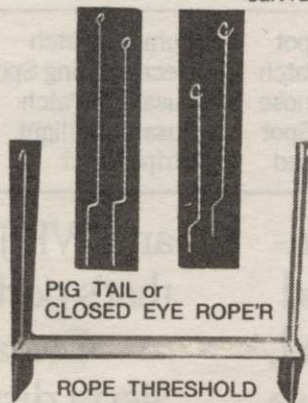
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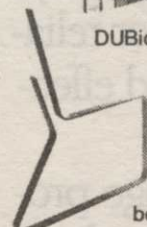


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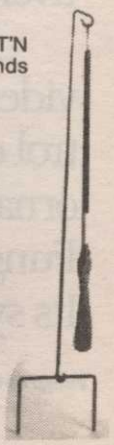
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Briefs



**EPA FUNDING RESEARCH**

The Environmental Protection Agency will give \$1 million a year for 10 years to each of four universities chosen as EPA Exploratory Environmental Research Centers.

Of those chosen, the University of Maryland System at Horn Point was chosen to do multi-scale coastal marine ecosystem research, while the University of California at Davis was picked to study ecotoxicology.

The centers are being established to provide research directly related to the EPA's long-range research strategy.

An independent scientific peer review panel and site review teams recommended the grant recipients from among 87 that applied.

Along with Maryland and California universities, the Massachusetts Institute of Technology and consortium members Caltech and New Jersey Institute of Technology will study transformation, transport and control of airborne organics; and Michigan Technical University, with consortium members Wisconsin and Minnesota, will study clean manufacturing technologies.

**WEST VIRGINIA ELECTS LEADERS**

The West Virginia Golf Course Superintendents Association has elected officers for 1992.

President Charles A. Murray of Edgewood Country Club succeeds Past President John C. Cummings of Berry Hills Country Club.

Vice president is Arthur R. Casto of Kanawha Country Parks, while Patrick E. Lewis of Scarlet Oaks Country Club is secretary-treasurer.

Serving on the board of directors are Howard H. Lott of Bridgeport Country Club; Carl Buttrey of St. Marys Golf Club; Gary Roush of Riverside Golf Club; David A. Tennant of Lakeview Resort (North Course); Dr. John F. Banieki of WVU Extension Service; and Richard A. Piatnek of Tri-Star Soils, Inc.

The officers and directors will guide the association in 1992 through its regular monthly educational meetings, annual scholarship and research fund-raiser golf tournament in June, and annual turf conference and show in November.

**40 YEARS IN FLORIDA**

The Florida Turfgrass Association will celebrate its 40th year at its annual conference and trade show, Sept. 20-23 at the Prime F. Osborn Convention Center in Jacksonville.

This year's conference will feature an educational program led by national experts in turf and related fields.

The event draws more than 2,000 visitors. More information is available from the Florida Turfgrass Association and Research Foundation at 800-882-6712.

**RESEARCH SUPPORTED**

The New Hampshire GCSA said it will continue its support for one more year of two research studies — Stan Swier's study of using nematodes to control cut worms, and Dr. John Roberts' research on winter kill.

The chapter donated more than \$11,000 for research in 1991.

# Saluting solutions

## Gainey Ranch's effluent plant gets an 'A'...

By Lyn Tilton

**W**hen Gainey Ranch of Scottsdale, one of 93 golf courses in the Phoenix, Ariz. area, sought permission to build its 27-hole complex in the mid-1980s, the city fathers responded, "Sure, but if you want water you'll have to build an efficient treatment plant." So they did, then donated it to the city.

"The plant cost \$4 million," said George Corthouts, superintendent of the semi-private course. "Scottsdale owns and operates the plant, and delivers the water we need at 46 percent of the cost of potable water rates in this area." That currently translates to 62 cents per thousand gallons, compared with \$1.38 for other users.

The treated water flows at 15,000 gallons per minute over a massive waterfall on the 9th hole of the Lakes nine, then meanders through the rest of the lakes. At the lowest point on the complex, the water is drawn out for irrigation, or recycled through the waterfall. In this desert state, a waterfall is an added attraction for visitors, and helps Gainey Ranch



George Corthouts, rear, discusses water treatment with Jim Tombaugh, treatment plant manager, inside the plant.

achieve 320 rounds of golf daily in the winter months and an average of 100 golfers in the summer.

"Frankly," said Corthouts, a Connecticut native used to rain, "in this area if you don't have water you don't have a golf course."

When you use 2 million gallons per day, water costs naturally add to the cost of play, which at this semi-private course comes in three rates: \$55, \$86 and \$100, plus taxes. "We are a true semi-private course, with one-third of our tee times reserved for guests at the Hyatt," Corthouts said.

"There are a lot of golf courses in the area, but in the winter we're all booked." Even with 93 courses to choose from, a seven-day reservation is not unusual during the winter months. Summer play is less intense, but it still makes watering schedules a challenge.

Gainey Ranch uses 100 percent of the water treated by the plant, which is situated next door to the maintenance complex. "In the winter it could support four or five courses, but during the four months of summer we need all of the water," Corthouts said.

He noted that the local water

Continued on page 22

## ...while Ocean Reef Club taps into the ocean for its H<sub>2</sub>O

By Kit Bradshaw

Superintendents throughout the country are using effluent from wastewater treatment plants to irrigate their courses.

But Ocean Reef Club in Key Largo, Fla., which is surrounded

by the sea, uses another method to capture this needed irrigation water. The club provides its irrigation water through its own desalination plant.

The reverse osmosis plant, which takes brackish water and

converts it to irrigation-quality water, has been operating for more than two decades. This desalination system provides the 36-hole golf course with 700,000 gallons of non-potable irrigation water a day. Potable water is

provided by the Florida Keys aqueduct which brings treated water from the Biscayne Aquifer.

The reason for the desalination is simple economics. Potable water from the aqueduct costs

Continued on page 23

## Kozelnicky garners coveted Georgia honors

By Vern Putney

AUGUSTA, Ga. — Never, in his wildest dreams, did George M. Kozelnicky think he would be sharing golf's center stage with the "King of Golf," nor that he would be congratulated on his achievements by the legendary Arnold Palmer.

Twenty-four hours after being inducted in the Georgia Golf Hall of Fame for service to the game, it hit home. The impact was staggering.

"It's the biggest thing that ever happened to me," said the retired instructor of agronomy and plant pathology at the University of Georgia.

"That this honor occurred in front of 800 of the most renowned names in golf and among my friends," said Kozelnicky, "is overwhelming."

A self-described "avid hacker"



Arnold Palmer joins George Kozelnicky in his celebration.

Photo by Frank Christian

who took up golf at age 43, Kozelnicky is enshrined alongside distinguished competitive company. The Hall, launched in 1989, now has 29 members. All but "Old Koz" have sparkling playing credentials.

Yet Kozelnicky has earned equal stature for game contributions. Kozelnicky took a circuitous route to the Golf Hall of Fame.

The 73-year-old Akron, Ohio, native as a teenager mowed bluegrass tees. After serving in World War II as an aerial gunner and later as instructor, he attended the University of Georgia, where he obtained both bachelor's and master's degrees in less than four years. He became a faculty member in 1951.

While pursuing a doctorate at Purdue University from 1958 to 1961, he discovered the specialized

Continued on page 21

# Steel tackles management along with turf

By Vern Putney

**D**avid Steel, golf course superintendent at Eastover Country Club in New Orleans, at age 40 is deeply involved in the far broader picture of golf — ownership, management and operations.

His newest title is general manager. He's a vice president in a trio who, in 1990, formed a 25-member limited partnership to buy the country club.

Donnie Pate is president of Eastern Development Co., Jimmy Headrick is the golf professional and vice president, and Steel VP/GM and superintendent.

Eastover was under construction when Steel went there in 1987 as superintendent. The private 18-hole, par-72, 6,800-yard course opened for play in the summer of 1988.

Eastover achieved its goal of 450 members on Dec. 31 and cut off membership. The clubhouse at the moment is modest. The accent is on links action.

"Our members are here because they want to play," Steel said.

Steel sees his current and future roles tied to management — of the course and people.

"I think my main attribute is the ability to see that things get done properly, to train crews to do the job of meeting high standards I've set. I'll admit to bordering on being a perfectionist, though I realize day-to-

day attainment of such a level isn't possible," he said.

"Still, we've learned that placing responsibility upon our employees and providing them with a piece of the action can be mutually rewarding," he added.

"For instance, we persuaded management to permit foot/beverage club manager Bernie Bevon to become an owner. Addition of such key persons means two-way commitment for the long haul. Anyone involved in an ownership capacity will do a better job."

With this business philosophy, it's unlikely Eastover ever will sink from sight, though it is four feet below sea level.

Rainfall in 1991 reached 102 inches, compared to the average of 60.

However, the course was built with bad weather in mind. Drainage is excellent. Should there be four inches of rain one day, golf would follow the next. Cart use might be limited, because 30,000 linear feet of cart paths must be protected.

Steel said Eastover is the only one of about 15 courses in the New Orleans area to undergo winter fairway overseeding.

Such treatment of greens, tees and fairways provides better playing conditions, he said.

This, he believes, contributed greatly to swift realization of the membership goal.

"When most clubs encounter an economic problem, the tendency is to start cutting costs,"



David Steel, right, with Jimmy Headrick, left, and Donnie Pate, center.

Steel said. "We maintained our forward outlook and increased budgets."

Steel and associates are not resting on their laurels. They are seeking out other club properties with a collective eye toward renovation and rejuvenation.

"Our objective at Eastover from Day One has been to construct a quality course, conduct a friendly and efficient country club, and make a profit," Steel emphasized. "We intend to expand this area of interest, retaining Eastover as a flagship."

Steel and colleagues appear to have been highly successful with their aims and the loyalty of 13 full-time employees.

They are perhaps proudest of their leadership role in helping charities. More than \$200,000 was raised for charity in 1991, and already booked for 1992 are such money-raisers as the American Cancer Society, Easter Seals, Hospice, Catholic Charities, Children's Hospital, Cystic Fibrosis and Alumni Association.

Steel was introduced to golf at age 11 as

part of a family membership at Brookwood Country Club in Jackson, Miss.

At 15, he began getting paid for help around the pro shop and the course. At 5 a.m. Sundays, he mowed greens, then hustled to the pro shop to help dispense sodas, sell golf balls, clean clubs and other duties. He was a full-timer on weekends, moving to maintenance work in the summertime.

Steel graduated from Mississippi State Turfgrass Management School in 1973, and in January 1974 became assistant pro at Live Oaks Golf Club in Jackson.

The next summer he moved to a job as superintendent at Pine Hill Golf Club, a course under construction in Monroe, La.

After nearly five years in the demanding dual role of superintendent and golf pro at Pine Hill, he switched to turf equipment sales. But in 1984 he returned to superintendent duties at Lakewood Country Club here.

Then came exodus to Eastover and a new entrepreneurial vision.

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# Towns toughening pesticide laws in wake of High Court ruling

Continued from page 1

sufficient testing and Environmental Protection Agency registration," said Allen James, executive director of Responsible Industry for a Sound Environment, an association representing chemical manufacturers and distributors.

"Local ordinances are more likely to be based on emotion and pressure from local groups rather than reflect good science. Superintendents who rely on thoroughly tested products may not be able to use them."

Approximately 100 communities have begun the process of enacting new ordinances or enforcing existing ones since last June's Supreme Court ruling that local regulations pre-empt the Federal Insecticide, Fungicide and Rodenticide Act, James said.

The voters of Missoula, Mont., recently rejected a proposed ordinance requiring posting of warning signs one day before and two days after outdoor pesticide applications. The vote was fairly close, 5,814-4,352.

The pesticide industry, related associations, local businesses and citizens spent \$32,000 on an educational program aimed at Missoula voters to help defeat the measure, James said.

"We won't put that kind of effort in everywhere," James said. "We'll use the lessons learned there in other communities."

An ordinance restricting pesticide use within the city limits was proposed last month in the hometown of the Golf Course Superintendents Association of America — Lawrence, Kan.

The ordinance was a rough copy of a proposed U.S. Senate bill that would require posting 72 hours before and after pesticide applications within 1,000 feet of the application site, according to Dave Fearis, superintendent at Blue Hills Country Club in nearby Kansas City, Mo.

Fearis was on hand for the City Council debate, along with members of the lawn care and pesticide industries.

The woman proposing the anti-pesticide ordinance owns an organic food market, Fearis reported. Another person speaking on behalf of the proposal was an official with the National Coalition Against the Misuse of Pesticides.

While agriculture and the golf industry are sometimes at odds, in this case they were united. Standing alongside the golf, lawn care and pesticide industry representatives was a farmer, who said the ordinance would ruin the local economy, Fearis added.

"You have to give the council credit," Fearis said. "They listened to both sides. They had just returned from a retreat where they listed 10 to 15 priorities. Pesticide use wasn't one of them. So they basically tabled it for the next four months."

The precedent for local pesticide regulation in Maine was set two years ago when a group of Lebanon residents successfully argued be-

fore the state Supreme Court for a local ordinance banning the electric company from spraying herbicides along right-of-ways, according to Gary Fish, certification and licensing specialist with the state Board of Pesticide Control.

Since then, 13 other towns have passed local laws regulating pesticide use, ranging from simple notification to the local code enforcement officer of restricted-use pesticide applications in resource protection districts near the town of Wells to a total ban of pesticides in Southport.

"We've received calls from some towns asking what others have done since the U.S. Supreme Court ruling," Fish said. "I think most are waiting to see what happens with the national FIFRA pre-emption proposals in Congress before they do anything."

The Coalition for Sensible Pesticide Policy, an organization of 160 associations, is pushing for proposed federal and state bills that would reauthorize federal pre-emption of local pesticide laws.

Two similar bills were introduced in Congress shortly before Christmas — U.S. House of Representatives bill H.R. 3850 and U.S. Senate bill S. 2085. They would amend FIFRA, authorizing federal and state governments to exclusively regulate the use of pesticides and prohibiting local government regulation. Thirty-one congressmen and six senators are sponsoring the proposals.

"The bills are picking up strength," said James, a member of the CSPP's steering committee. "They haven't been scheduled for hearings yet, but we're hoping Congress will move on them quickly. CSPP believes they have a good chance of passage now that

Congress realizes local jurisdiction is not in the best interest of the public."

Colorado green industry officials are hoping the Denver City Council will reject or at least table action on a proposed local notification ordinance until Congress acts.

The Denver proposal would require prenotification and postnotification for applications made more than five feet above ground. It also conflicts with state law regarding aquatic applications, according to Tom Tolkacz, operations manager with Swingle Tree Co. in Denver.

The Rocky Mountain Golf Course Superintendents Association has worked with the Green Industries of Colorado to defeat the measure, Tolkacz said. The City Council was scheduled to review the ordinance Feb. 4.

"That's when we anticipate they will decide whether to vote on it immediately, discuss it some more or table it," he said. "If we can get them to table it, that gets us closer to seeing how the House and Senate bills go."

"We'd consider tabling the measure a victory, although our ultimate goal is to defeat it. This is important, because what happens in Denver will likely be repeated elsewhere in Colorado."

On the state level, CSPP has developed model pre-emption language for both "home" rule and "non-home" rule states, emphasizing those states identified as having a greater need for consistent regulation.

The coalition has also started a Local Ordinance Information Network for notifying members of pending local regulations throughout the country.

## Towns considering pesticide regulation

<b>ALABAMA</b> Huntsville *#	<b>MASSACHUSETTS</b> Agawam Boston **	<b>NEW YORK</b> Buffalo *# Cazenovia Great Neck Estate Old Woodbury Tarrytown
<b>CALIFORNIA</b> Mendocino Co	Great Barrington Greenfield Mansfield Mashpee West Springfield *# Wellesley Wrentham Yarmouth	<b>OHIO</b> Berea Euclid *+ Fairlawn Fairview Park Hillsboro Lakewood Mayfield Village Parma University Heights Yellow Springs
<b>COLORADO</b> Boulder Denver **	<b>CONNECTICUT</b> Granby	<b>OKLAHOMA</b> Edmond
<b>DELAWARE</b> Elsmere	<b>MICHIGAN</b> East Lansing *# Flushing Forsyth Township Livonia *# Milford Troy West Bloomfield	<b>OREGON</b> Eugene
<b>ILLINOIS</b> Aurora Chicago Franklin Park Highland Park Hoffman Estates Lakewood Lake Zurich Lincolnshire Oak Park Palatine *# Park Forest Rockton Schaumburg Wauconda *#	<b>MINNESOTA</b> Bloomington Cottage Grove *# Minneapolis *# Roseville *# St. Louis Park ** St. Paul South Shores	<b>PENNSYLVANIA</b> Abbington Township Bethlehem ** McAdoo Milcreek Township *# Murrysville ** Packer Township ** Plum Westchester
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<b>KENTUCKY</b> Georgetown *#		<i>* newly added since original list of 7/9/91 + in process # report of previous activity; bears further watching/investigation</i>
<b>MAINE</b> Lebanon		<i>Source: CSPP</i>
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# Bunker sand testing finds critical answers to life of traps

By James C. Thomas

At one time, any white sand was thought to suffice for bunker use because "sand is sand" and the bunker needed only to look nice. But not all sands are created equal.

Sands containing too much silt and clay form crusts or set up into a massive structure. Either of these conditions lowers playability and requires additional maintenance.

When excessively large particles are blasted onto the green they interfere with putting and dull mower blades. The shape of the individual particles also makes a big difference in sand behavior. Round sands are not stable on slopes and are more easily

displaced by balls. The resulting partial burial of balls in round sands has earned the name "fried egg lies."

So, it is clear the selection of a bunker sand — commonly taken for granted — should not be left to chance.

The first procedures for evaluating sands for use in bunkers were developed by K.W. Brown and J.C. Thomas and published in 1986.

By correlating the results of a battery of laboratory tests run on bunker sands with the results of a survey of the golf course superintendents who submitted the bunker sand samples, we established a set of criteria common to bunker sands that superinten-

dents judged to be of high quality.

While it may not always be possible to find a local sand that meets all criteria, by testing and ranking those available, you can choose the sand that has the greatest potential for providing acceptable playing conditions and best use construction funds.

Criteria that need to be evaluated include particle size and shape, crusting, the propensity to set-up into a massive structure, infiltration rate, color, and the tendency to form fried egg lies.

## PARTICLES

Particle-size analysis gives a measure of

the amount of silt and clay present in the sand as well as a measure of the size of the sand particles. An ideal bunker sand should contain less than 3 percent total silt plus clay. Sands exceeding this amount of silt and clay are subject to forming surface crusts and are more likely to set-up.

Crusting is the formation of a thin hardened surface layer. Crusts on bunker sands usually form as a result of the impact of rain or irrigation water, which causes the silt and clay particles at the surface basically to cement the sand particles together.

Set up is a similar phenomenon. However, in this case, the cementation occurs throughout the sand and not just at the surface. This results in a sand that is lumpy when disturbed after rainfall or irrigation.

Both crusting and set-up require more frequent raking to maintain adequate playing conditions. The particle size distribution of the sand particles should be such that the majority of the particles are from 0.25 to 1.0 millimeter in diameter, with less than 3 percent of the particles greater than 2 mm in diameter and less than 25 percent of the particles less than 0.25 mm in diameter.

Angular-shaped sand particles are preferred over round particles, because the angular particles require a greater force to displace them when hit by a ball. This leads to a generally higher resistance to developing fried egg lies and less blasting of the bunker sand onto the green, where it may interfere with putting and mowing. In addition, angular sands tend to stay in place better on slopes.

Whatever sand is selected, it should be underdrained and must have an infiltration rate as great or greater than that of the root-zone mix of the adjacent putting green. An insufficient infiltration rate may result in bunkers that pond water and remain excessively wet.

## COLOR

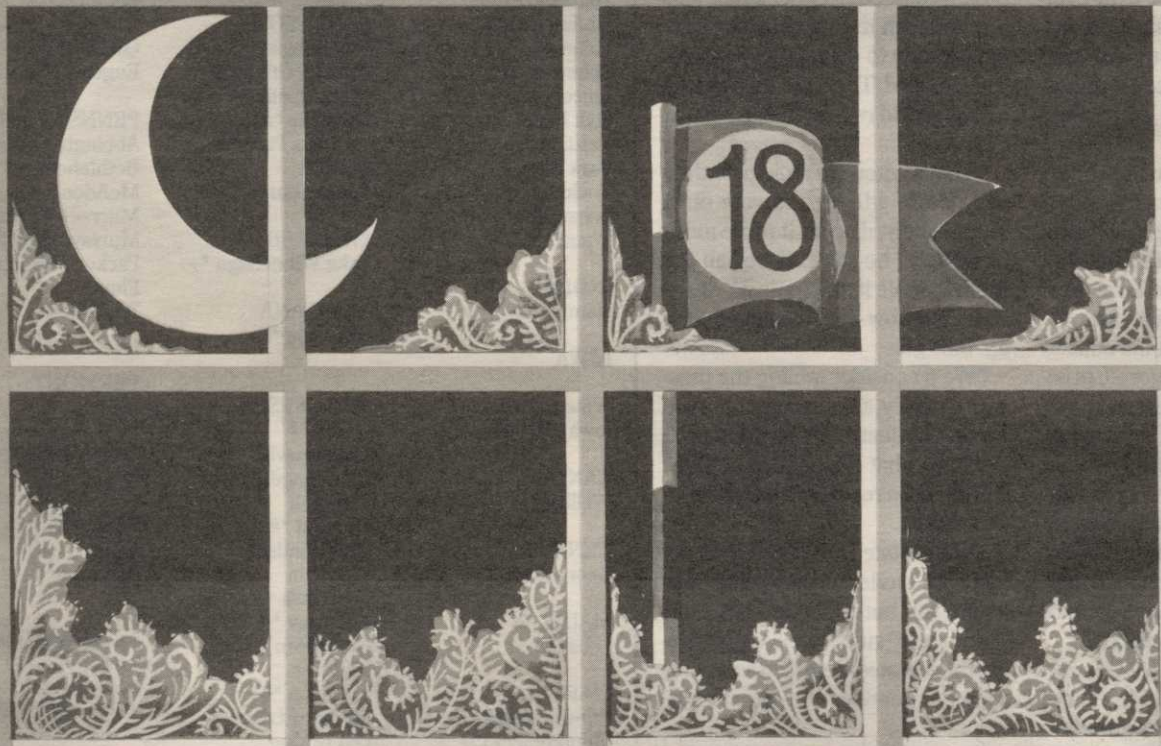
Sand color is determined by comparison to the Munsell color chart. In general, most courses and players prefer a white or light-colored sand. However, when the choice is between a white sand with poor playing characteristics and a darker sand with good playing characteristics, the darker sand may perform better in the long run.

## BAD LIES

Probably the most frequent criticism of bunker sands is the tendency to form fried egg lies. Such lies make it difficult for the player to recover and require that the player dig the club into the sand and blast the ball and adjacent sand out of the bunker and onto the green. The fried egg lie development test evaluates this potential by measuring the force required to press a golf ball to a specified depth in a known volume of sand. Sands that score high on the fried egg lie development test are resistant to the formation of fried egg lies.

Whether renovating existing bunkers or adding new bunkers, testing of the possible bunker sands assures getting the best playing conditions per dollar invested in materials. Given an adequate amount of effort and proper testing, bunker sands can be found which require a minimum of maintenance and provide ideal playing conditions for those who are unfortunate enough to have their ball land in them. Several soil testing labs around the country test bunker sand.

James C. Thomas is a certified professional agronomist and turf services director at K.W. Brown and Associates in College Station, Texas.



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# Palmer Maples reaps laurels for much-honored golf family

## Appreciation Award points to decades of contributions

Palmer Maples Jr. of Summit Chase Country Club in Snellville, Ga., former president of the Golf Course Superintendents Association of America, was presented an Award of Appreciation at a Georgia Golf Hall of Fame banquet in January.

The award was presented to Maples largely for his performance over several decades in which he has been a role model for aspiring superintendents.

He has helped many young superintendents find the way to the summit of their profession. One of them, Atlanta Athletic Club superintendent Ken Mangum, presented the Award of Appreciation in behalf of the Georgia Golf Course Superintendents Association.

A member of a famous golf indus-

try family, Maples was GCSAA president in 1975, a board member for six years, Georgia GCSA Superintendent of the Year in 1971, and served on the U.S. Golf Association Green Section Committee for 15 years.

One of the country's first 10 certified golf course superintendents, Maples was superintendent at Charlotte (N.C.) Country Club for 11 years, then moved to the Standard Club in Georgia in 1970. In 1977 he went to work as education

director for the GCSAA, leaving in 1981 after developing manuals and slide sets for education programs.

Palmer says, "As a writer and speaker, I've tried to share my experience as a golf course superintendent for 30 years and encourage other superintendents to provide the best playing conditions they can. We all receive from the men and women who went before us, and we need to give back all we can to insure the betterment of golf."

Palmer encouraged young

people coming into the business to seek all sources of information, try them out, and then tell others of the success or failure, because "there are times when knowing what not to do is as good as knowing what to do."

"No one ever said golf was fair, and no one says being a superintendent is an easy job. But it is rewarding. Seeing the beauty of God's nature and being able to work to enhance that beauty is a blessing in itself."

## Independent course runoff studies sought

*Golf Course News* is calling for leads on turf runoff research that has been done or is planned at golf courses.

In order to add substance and bulk to the body of scientific knowledge, we are asking superintendents and others to let us know about any research they know about. Please contact Stuart Cohen at Environmental & Turf Services, Inc., 11141 Georgia Ave., Suite 208, Wheaton, Md. 20902.

Cohen will follow up any lead and compile the results to be summarized in a report for the industry.

Cohen said he has discovered instances of isolated, limited studies of golf course runoff or leaching. Usually, those studies are never publicly released, he said.

## Kozelnicky

Continued from page 17

agriculture of golf turf, saw the need for research and promotion of that field and decided to make golf turfgrass management his future.

Upon his return to Georgia, Kozelnicky expanded his teaching and research into turf, instituting a turfgrass disease course, with northern Georgia golf courses serving as laboratories.

This was the only course of its kind. Kozelnicky strived to acquaint his students and researchers with the game of golf because of his belief that anyone who researches and teaches turf must play the game.

He became executive secretary of the Georgia Golf Course Superintendents Association in 1968, retiring in 1989, and simultaneously served as editor of *Georgia Turfgrass News*, which promoted golf course management and the superintendent.

From 1961 until retiring in 1983, Kozelnicky conducted research on turfgrass disease and taught turfgrass management. He is particularly proud of the many graduate golf course superintendents situated across the nation.

He also advised the golf industry on management, environment, chemistry, and disease, insect and weed control.

Now residing in Athens, Kozelnicky is golf committee chairman of Jennings Mills Country Club in Bogart.

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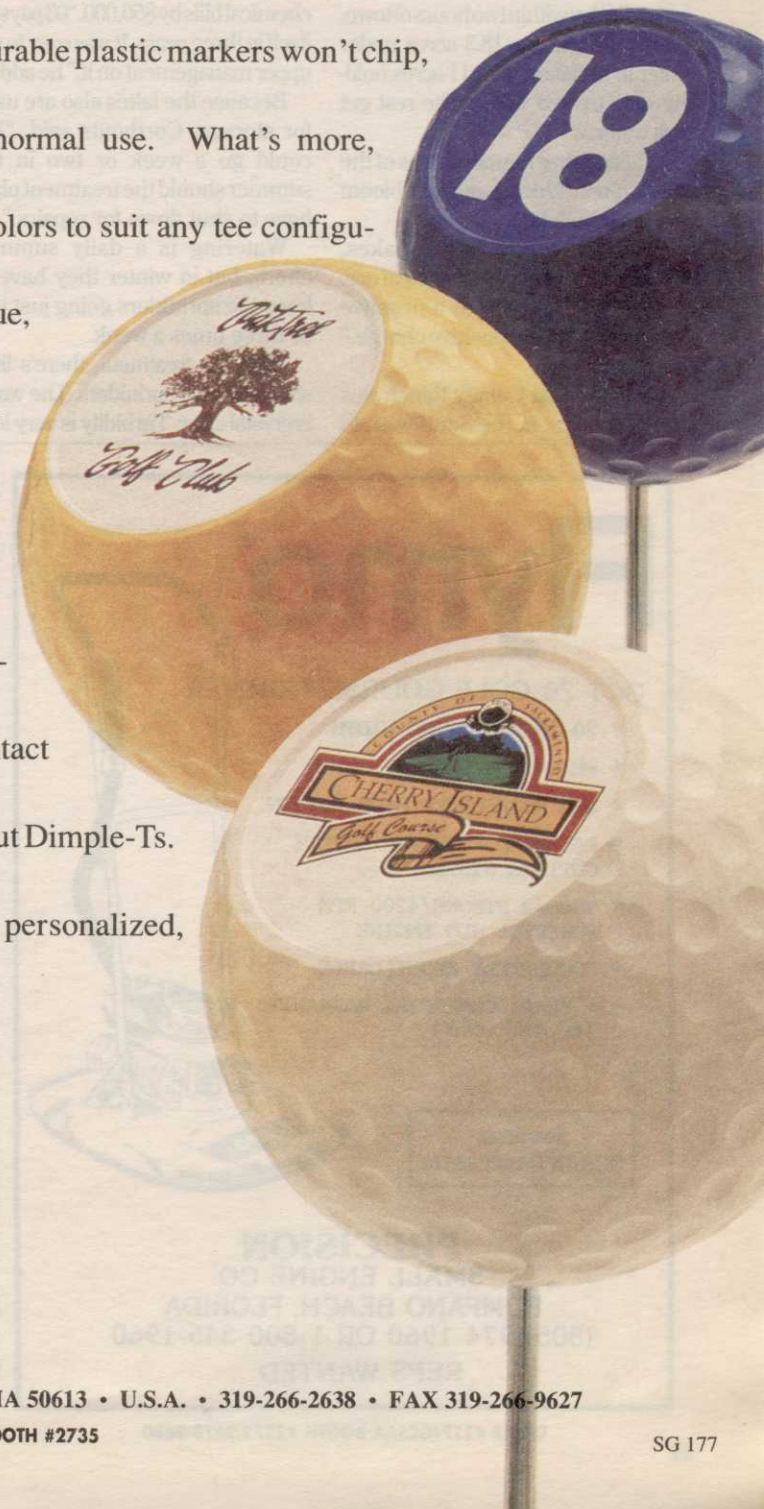
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# Gainey Ranch's treatment plant solved water question

Continued from page 17

table is about 330 feet down — when you can get a drilling permit. "We run two wells for potable water, and it's hard water," he added.

But tertiary-treated water seems to be gaining favor in the Valley of the Sun. In fact, Corthouts predicts that eventually all new golf courses in Arizona will keep green via treated effluent water. "Older courses in this area are grandfathered with well water or city water," he said.

When asked the biggest challenge in irrigating with treated effluent water, Corthouts replied: "Sodium. Not all nitrates or phosphates are removed, either, so when water gets to the lakes on the course, it tends to promote weed and algae growth. It's hard to leach sodium out of clay."

His solution is to apply sulfur semi-annually and gypsum annually. "We lay down 100 pounds of sulfur and 200 pounds of gypsum per acre in June, then add another 100 pounds of sulfur in August," he explained.

"We do a lot of aerifying. We have one large machine, which we run every day."

A positive result is the effluent water makes an attractive, even lush, course all the more possible. For Arizonans, golf courses have the largest open water display within two hours of town. Gainey Ranch has 18.3 acres under water in six lakes, with 11 acres holding only treated water. The rest get well water.

When spring temperatures of the ponds reach 90 degrees, algae bloom is a real challenge.

"We use ozone in our lakes, making it through an electrical arc. It gives us O<sub>3</sub>, but with a negative charge instead of a positive charge," Corthouts said.

He noted that Gainey Ranch was one of the first in the Southwest to



Tertiary-treated effluent water makes this waterfall possible, says course superintendent George Corthouts.

try the negative charge, but the concept is becoming popular.

"It's a water-treatment technique that leaves no residue," he said. "It has a half-life of just 20 minutes, then turns back into oxygen. The treatment saves us money in the long run."

He said ozone has cut annual chemical bills by \$50,000. "O<sub>3</sub> pays for itself in three years. It was easy to sell upper management on it," he added.

Because the lakes also are used for storage, Corthouts said, "We could go a week or two in the summer should the treatment plant have to shut down for repairs."

Watering is a daily summer chore, but in winter they have to keep the sprinklers going just two or three times a week.

With the treatment, there's little sludge to clog sprinklers. The water is crystal clear. Turbidity is very low.

"Water, itself, seldom is a problem in the sprinkler. The challenge is the algae," Corthouts said. He also noted the ponds tend to darken, and his crew has to take standard precautions when they draw from the ponds, just as do courses using ponds filled by other water sources.

Another cost-saving step is that the pond treatment system was designed to be 90-percent efficient at the worst time of year, rather than the more costly 100 percent. "That other 10 percent would cost us a fortune" Corthouts explained.

Jim Tombaugh, treatment plant operator, said turbidity is less than 1.0, versus drinking water standards of 0.4.

"There are still minerals and nutrients in the water that don't meet potable water requirements," he said.

Tombaugh said the treatment

system is limited to biological methods. "The only chemical we use is chlorine."

One advantage is that the plant, which maintains a low profile behind a wall on the edge of the complex, blends in with the course's overall design. It doesn't seem to be a sewage treatment plant.

Tombaugh said a 30-inch main comes into the plant. But, by the time the main joins its brothers and arrives at the regional treatment plant across the metro area and 40 miles away, the volume is 120 inches.

Tombaugh noted that the golf course helps keep the entire system less costly. Not only does Scottsdale profit by selling water to Gainey Ranch, but there's less volume to send to that regional plant.

Even with treated water, it's a

fight to have enough water and leave time for golfers. They can't sprinkle between foursomes, and with 320 per day, it's hard to shut down nine holes for watering. For that reason, the main waterings are from 9 p.m. to 6 a.m. Sprinkler checks and repairs are made between foursomes.

Making sure maintenance doesn't interfere with the game keeps Corthouts and his crew busy. But the real challenge is getting enough water on the course, even with daily waterings. "June and July are particularly challenging, but during August the rains catch us up. We get seven inches annually, with half that in our August 'monsoon' season," Corthouts said.

That also reduces need for the plant's water. Tombaugh added: "The plant's designed for extended aeration and year-round nutrient removal. We run three aeration basins in the winter and five in the summer. We also have sand filters, using 11-inch-thick sand beds, and we clean those beds several times a day."

This permits the operator to filter out colloidal mass. That mass goes back into the sewer system, and again is removed at the regional plant. They don't store or truck solids at Gainey Ranch. The goal is to keep the plant's profile low.

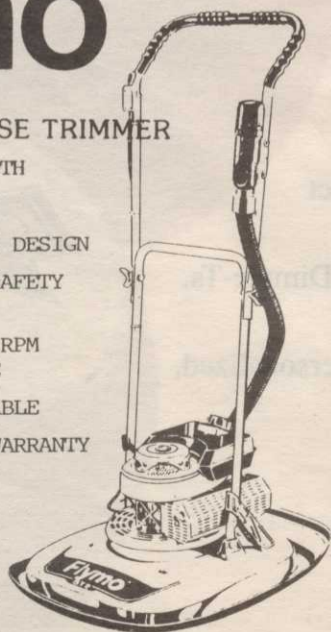
Essential to a successful on-site treatment plant is communication. "We're right next to each other," Corthouts said. "If either has a problem, the other knows about it immediately. If the plant has to shut down for repairs, for example, we can start drawing from our ponds. This plant can refill a pond in just eight hours."

Best of all, golfers are seldom aware that they're playing near a waterfall and on a green surface made possible by wastewater.

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# Desalination plant was the answer for Key West facility

Continued from page 17

\$5.18 per thousand gallons for the first 12,000 gallons and then jumps to \$6.18 per thousand. The desalination plant can provide water for approximately \$3.00 per thousand gallons.

It's not cheap, compared to the rates in Boca Raton—\$0.85 per thousand gallons—but it certainly is more economical than irrigating with the potable water coming from the aqueduct.

For several years, Ray Hansen was the golf course superintendent at Ocean Reef Club. Today, Hansen is the superintendent at Delaire Country Club in Delray Beach.

"Straight salt water contains 35,000 parts per million of salt," Hansen says, "while the

brackish water that is desalinated is 3,500 parts per million. If you take this brackish water, and put it through a new, well-maintained reverse osmosis plant, it comes out at 350 parts per million. If you treat it according to health department requirements, it can be potable water.

However, this is the best-case scenario.

"As the plant gets older, the membranes within the reverse osmosis system have a tendency to clog up, and they need continual maintenance. Eventually, they become less and less effective and they have to be replaced."

Hansen says that five years ago, new equipment was installed in the desalination

plant at Ocean Reef Club. This \$700,000 project upgraded the equipment and the membranes within the plant. The membranes have a five-year lifespan, he says, and they should be replaced shortly. The remaining equipment will be functional for another five years.

Although the desalination plant provides the club with the much-needed irrigation water, some precautions are needed when using this type of water.

"As the membranes get older," Hansen says, "the salt content in the water slowly rises. The soil index must be constantly monitored. A salt ratio of 1,000 parts per million or less is acceptable for the

turfgrass. Anything above that can cause problems.

When this salt content reaches 1,000 parts per million, then the membranes in the reverse osmosis plant must be cleaned, or if they are older, replaced."

Hansen says that in the future, Ocean Reef Club may begin using effluent in combination with the desalinated water from the reverse osmosis plant.

This combination would reduce the cost of the irrigation water.

However, he adds, availability and cost will be the final determining factor in using a combination of desalinated water and effluent on the Ocean Reef Club courses.

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# Kentucky bluegrasses making comeback

By Mark Leslie

There is a resurgence in Kentucky bluegrasses that are better able to handle drought, disease and low maintenance, according to the director of the National Turfgrass Evaluation Program.

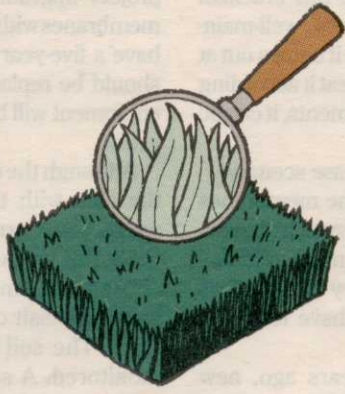
Kevin Morris was reporting on the final reports of the five-year test of bluegrasses and four-year test of ryegrasses.

Speaking from the U.S. Department of Agriculture's Beltsville (Md.) Agricultural Research Center, Morris said, "Tall fescues and ryegrasses came on in the 1980s.

But I think there is a resurgence in the bluegrasses."

In the 1980s, he said, golf course superintendents and others started using tall fescues because they had no disease problems and were able to survive low-maintenance situations and drought.

"It fit a big market niche. But through breeding, we have moved tall fescues away from that. We tried to take the old tall fescue and make it darker green, denser and lower-growing. We have been able to do all that. We've moved it closer to Kentucky bluegrass, but it's not



Kentucky bluegrass. So we've moved it away from some of its more

positive traits, and added some problems. It tends to be slower to establish and has a harder time getting through the first summer after establishment."

Morris said Europeans, who have worked with the bluegrasses a long time, are doing major breeding research.

"They are trying to open up their market and are looking at the United States more closely and more aggressively than in the past. They don't have the disease problems we have over here—on the East Coast, particularly. So generally their

grasses don't have the disease resistance we need," he said.

"But they are working to improve that. In general, they've probably done a pretty good job."

Morris said European cultivars of bluegrass tend to have more wear tolerance.

"They use the bluegrasses, ryegrasses, fine fescues and chewings fescues a lot on their athletic fields. They seem to be more refined about breeding for those (wear) traits than we are here."

Morris added that U.S. universities are conducting a national test

## Kentucky bluegrass national field test tabulations

Name	BC1	CA2	CA3	CA4	DC1	GA1	IA1	ID1	ID2	IL1	IL2	IN1	KS1	KS2	KY1	MB1	MD1	MN1	MO1	NC2	NC4	NE1	NE2	NE3	NJ1	NJ2	NM2	OH1	OK1	OR1	PA1	PA2	RI1	SD1	UB1	VA1	VA2	VA3	WA1	WA3	WA4	MEAN	
*Blacksburg	6.3	4.5	5.1	6.3	2.4	5.8	4.9	7.2	7.3	6.5	7.2	6.7	7.2	8.0	6.4	8.3	6.8	6.4	4.3	6.5	4.0	6.3	6.0	5.4	5.8	7.1	7.1	6.0	6.0	5.2	7.3	6.1	7.8	7.4	7.2	7.9	5.6	5.9	4.7	7.3	6.4	5.6	6.2
*Midnight	5.7	4.3	5.6	6.7	3.9	5.7	4.3	7.8	7.4	6.2	6.0	6.9	7.3	8.4	5.9	7.6	7.1	6.9	3.0	6.3	3.7	6.1	6.2	6.0	5.7	7.2	6.8	7.3	6.5	5.7	7.0	4.6	5.8	6.8	7.3	7.7	5.6	5.4	5.4	6.9	6.7	3.4	6.1
*Princeton 104	6.2	3.1	4.8	5.8	2.6	5.3	4.7	7.2	6.8	6.6	6.0	6.5	6.7	8.1	5.6	7.2	6.9	7.2	5.0	6.4	4.3	6.2	5.4	5.6	5.4	7.0	6.7	5.5	6.0	5.3	6.7	5.4	6.9	6.5	7.3	5.8	5.1	4.6	7.2	7.8	4.9	6.0	
*Asset	6.0	4.1	5.5	6.1	5.1	6.0	4.4	5.8	6.9	6.1	5.4	6.8	6.6	7.2	6.1	7.9	6.0	6.5	5.3	6.3	4.8	5.7	5.4	5.8	5.3	6.6	6.3	6.5	6.4	5.9	6.5	4.9	6.3	6.8	7.1	6.9	5.4	5.7	4.2	6.5	6.9	5.9	5.9
*Chateau	6.1	4.2	5.3	6.1	3.6	6.2	4.5	8.0	6.2	5.8	6.2	6.4	6.7	7.3	5.7	7.3	5.7	5.9	4.0	6.7	4.8	5.8	5.8	6.1	5.8	5.7	5.8	6.0	6.7	5.2	6.1	4.8	6.2	6.8	6.7	6.6	5.4	5.6	5.2	6.9	6.6	6.4	5.9
*Lofts 1757	5.8	3.1	5.2	6.8	3.7	5.8	5.3	7.3	6.7	6.1	5.9	6.5	6.9	7.8	5.7	7.2	6.5	6.5	3.7	6.5	3.8	5.9	5.1	4.9	4.8	6.6	6.5	7.0	5.7	6.2	6.3	5.0	5.6	6.8	6.7	7.2	5.7	5.4	4.7	6.5	6.6	5.2	5.9
*Coventry	6.3	5.4	5.2	5.9	3.8	6.0	4.3	7.5	6.4	5.7	6.7	5.7	6.8	7.0	5.7	7.1	6.0	5.9	4.7	6.6	3.8	5.3	5.4	6.0	5.7	5.6	5.2	6.7	6.3	5.5	5.9	5.2	5.3	6.3	6.7	6.6	5.6	5.3	5.5	6.3	6.9	5.9	5.9
*Freedom	x	N 4.9	5.5	x	x	5.7	5.7	7.3	6.7	6.4	5.9	6.3	x	7.0	5.8	7.0	6.3	5.6	5.0	6.8	3.5	5.0	5.8	5.3	4.8	5.4	5.2	6.8	5.5	5.5	5.7	5.0	x	6.5	6.9	6.5	5.3	5.0	5.2	6.4	6.0	6.7	5.8
BA 73-540	6.3	5.0	5.3	6.0	4	6.0	4.6	7.0	6.7	6.0	6.2	5.5	6.4	7.2	5.7	7.5	6.3	6.0	2.7	6.3	4.7	5.5	5.6	6.0	6.1	5.7	5.5	6.3	6.5	6.5	6.0	4.4	6.1	6.7	6.7	6.8	5.1	5.6	4.6	6.9	6.5	4.5	5.8
*America	5.3	4.9	4.8	5.7	3.9	5.9	4.7	5.0	6.8	6.0	6.3	6.9	7.1	7.5	6.6	7.5	6.1	5.8	3.3	6.5	4.3	4.9	5.7	4.9	5.2	6.2	6.2	7.2	6.3	5.8	6.3	5.9	5.6	6.8	7.5	7.5	5.5	4.7	5.1	6.6	4.9	7.6	5.8
*Eclipse	5.8	4.0	4.6	5.9	3.3	5.6	4.8	7.7	7.1	6.3	5.9	6.6	6.8	7.6	6.2	7.6	6.2	6.7	2.3	6.2	3.5	6.3	5.8	5.8	5.5	6.5	6.4	6.3	5.9	6.1	6.6	4.9	6.5	7.2	7.3	7.5	5.7	5.2	4.7	6.7	4.4	4.9	5.8
*Aspen	5.5	5.3	5.1	5.9	3.5	5.4	4.6	7.2	6.2	6.8	6.1	6.6	7.0	7.3	6.3	7.5	6.2	6.1	3.0	6.4	4.0	6.4	5.1	5.5	5.3	6.3	6.1	6.5	5.3	5.2	5.7	5.8	6.8	6.6	7.3	7.3	5.1	5.3	5.4	6.3	5.7	4.7	5.8
*Estate	6.4	4.7	5.3	6.5	4.0	6.3	4.6	7.3	6.5	5.7	6.2	6.0	6.5	7.0	5.7	7.2	5.8	5.5	2.0	6.6	4.7	6.3	5.3	6.1	6.0	5.8	5.5	6.8	6.2	5.5	6.3	4.6	5.6	6.7	6.8	6.7	5.1	5.2	5.2	6.4	6.9	4.0	5.8
*Glade	5.9	5.6	5.3	6.3	4.8	5.4	4.4	6.2	7.0	5.2	5.7	6.3	6.6	7.4	5.9	7.8	6.0	6.0	3.3	6.4	3.8	7.2	6.0	5.8	6.1	6.2	5.9	6.3	6.1	4.7	5.5	5.1	6.5	6.7	6.9	6.9	5.1	5.3	4.6	6.5	5.5	4.8	5.8
*Classic	5.6	5.8	5.5	6.3	3.7	5.7	5.0	6.8	6.6	6.2	5.8	6.4	6.7	6.9	6.2	7.5	6.3	5.9	4.7	6.6	3.5	4.9	5.2	5.5	4.8	5.6	5.4	7.3	5.4	5.7	6.0	4.6	5.5	6.2	7.2	6.4	5.4	4.9	5.3	6.1	6.4	5.9	5.8
WW AG 496	5.7	3.5	5.3	5.6	4.2	5.4	5.0	7.3	6.4	6.5	6.5	6.2	x	7.3	5.8	8.2	6.6	5.2	4.0	6.4	4.8	5.8	6.2	5.5	5.3	5.6	5.7	7.5	5.9	5.2	5.6	5.1	6.1	6.6	7.0	6.7	5.3	5.5	4.5	6.1	6.3	4.1	5.8
*Able 1	5.4	3.7	4.8	6.8	3.2	5.9	5.2	7.3	6.8	6.5	5.8	6.7	7.1	6.8	6.0	7.7	6.1	6.1	3.7	6.2	4.2	6.0	5.1	5.6	5.2	6.4	6.2	6.8	5.5	4.9	6.3	5.1	7.3	6.9	7.0	6.9	5.0	5.0	4.4	6.6	6.4	5.9	5.8
*Wabash	4.9	4.8	5.2	5.4	5.6	5.6	5.7	7.0	6.2	6.8	7.0	6.8	6.4	6.5	6.2	7.7	6.0	5.6	5.3	6.6	4.5	5.5	5.5	6.0	6.2	4.9	4.9	6.3	5.8	5.7	4.9	6.0	4.3	6.8	7.3	6.6	5.1	5.3	4.9	5.9	4.4	5.8	5.8
*A-34	6.1	4.3	5.3	6.1	4.8	5.6	5.1	6.7	6.9	6.5	5.9	6.5	6.4	7.1	5.8	7.5	6.7	5.1	3.7	6.6	3.5	5.7	6.2	5.9	5.8	5.4	5.0	6.5	5.9	6.2	6.0	5.1	6.3	7.1	5.9	6.4	5.2	5.0	4.7	6.2	6.4	5.8	5.8
BA 69-82	6.0	3.6	5.4	5.9	4.4	6.2	4.5	7.8	6.5	6.4	6.0	5.8	6.6	7.1	5.9	7.3	5.3	5.9	2.7	6.5	4.7	5.8	5.1	5.4	5.3	5.3	5.2	6.7	6.5	5.9	5.9	4.0	5.9	6.5	7.0	6.7	5.4	5.3	4.8	6.4	6.6	5.9	5.8
BAR VB 534	5.5	4.2	5.3	4.9	3.6	6.3	4.8	6.5	6.5	5.9	5.6	6.8	x	6.8	5.5	8.2	6.5	5.1	5.3	6.2	4.0	5.6	6.4	5.7	6.3	5.6	5.5	6.5	5.7	5.9	5.3	5.3	6.3	7.0	7.4	6.7	5.1	4.6	4.3	5.4	5.7	6.2	5.8
*Cheri	6.2	4.7	5.4	5.9	3.4	6.0	4.1	7.7	6.7	6.0	5.9	6.9	7.2	5.8	7.7	5.8	5.8	2.7	6.5	5.2	6.2	5.7	6.0	5.3	5.6	5.5	6.2	6.1	5.2	5.9	4.3	5.6	6.6	6.5	6.7	5.3	4.9	4.9	6.7	6.0	7.1	5.8	
*Bristol	5.7	4.5	5.3	6.5	3.4	5.4	4.5	7.5	6.3	5.7	5.9	6.3	6.8	7.5	6.0	7.0	6.2	6.4	3.3	6.5	3.7	5.2	5.7	5.0	6.5	6.2	5.7	6.0	5.9	6.5	5.1	5.8	6.6	7.0	6.8	5.1	5.0	4.6	6.4	6.8	5.9	5.8	

### Bluegrass test sites

The site descriptions and management practices for the 1986-90 National Kentucky Bluegrass Test follow, with location listed first, then soil texture; nitrogen (pounds per 1,000 square feet); mowing height in inches; and irrigation practiced:

- BC1: Agassiz, British Columbia; loam; 2.1-3.0; 1.1-1.5; only during severe stress.
- CA2: Santa Ana, Calif.; N/A.
- CA3: Riverside, Calif.; sandy loam; 2.1-3.0; 1.6-2.0; to prevent stress.
- CA4: Ventura, Calif.; silty clay loam; 8.1+; 1.1-1.5; to prevent stress.
- DC1: Washington Monument Grounds; loam; 1.1-2.0; 2.1-2.5; no irrigation.
- GA1: Experiment, Ga.; sandy clay loam; 3.1-4.0; 2.1-2.5; to prevent stress.
- IA1: Ames, Iowa; silty clay loam; 3.1-4.0; 1.6-2.0; no irrigation.
- ID1: Moscow, Idaho; silty clay loam; N/A.
- ID2: Post Falls, Idaho; sandy loam; 2.1-3.0; 1.6-2.0; to prevent stress.
- IL1: Urbana, Ill.; silty clay and clay; 3.1-4.0; 1.6-2.0; to prevent stress.
- IL2: Carbondale, Ill.; silty clay and clay; 0.0-1.0; 2.1-2.5; only during severe stress.
- IN1: West Lafayette, Ind.; silt loam and silt; 3.1-4.0; 2.1-2.5; to prevent stress.
- KS1: Manhattan, Kan.; sandy clay loam; 3.1-4.0; 2.6-3.0; to prevent stress.
- KS2: Wichita, Kan.; sandy loam; 3.1-4.0; 2.1-2.5; to prevent stress.
- KY1: Lexington, Ky.; silt loam and silt; 2.1-3.0; 1.6-2.0; only during severe stress.
- MB1: Winnipeg, Manitoba, Canada; silty clay and clay; 2.1-3.0; 0.6-1.0; to prevent stress.
- UB1: Beltsville, Md.; silt loam and silt; 2.1-3.0; 1.1-1.5; to prevent dormancy.
- MD1: Silver Spring, Md; sandy loam; 3.1-4.0; 2.1-2.5; to prevent dormancy.
- MN1: East Lansing, Mich.; sandy loam; 2.1-3.0; 1.6-2.0; to prevent stress.
- MO1: St. Paul, Minn.; silty clay loam; 3.1-4.0; 1.6-2.0; to prevent stress.
- MO1: Columbia, Mo.; silty loam and silt; 3.1-4.0; 2.1-2.5; to prevent stress.
- NC2: Charlotte, N.C.; silty clay loam; 2.1-3.0; 1.1-1.5; only during severe stress.
- NC4: Goldsboro, N.C.; sandy loam; 2.1-3.0; 1.1-1.5; only during severe stress.
- NE1: Lincoln, Neb.; silty clay loam; 3.1-4.0; 1.6-2.0; to prevent stress.
- NE2: Lincoln, Neb.; silty clay loam; 3.1-4.0; 2.1-2.5; to prevent stress.
- NE3: Mead, Neb.; silty clay loam; 3.1-4.0; 0.6-1.0; to prevent stress.

- NJ1: North Brunswick, N.J.; sandy loam; 4.1-5.0; 1.6-2.0; to prevent dormancy.
- NJ2: Adelphia, N.J.; sandy loam; 5.1-6.0; 1.6-2.0; to prevent dormancy.
- NM2: Farmington, N.M.; loamy sand; 2.1-3.0; 2.6-3.0; to prevent stress.
- OH1: Columbus, Ohio; silty clay loam; 1.1-2.0; 2.1-2.5; to prevent stress.

- OK1: Stillwater, Okla.; N/A.
- OR1: Hubbard, Ore.; silt loam and silt; 4.1-5.0; 1.1-1.5; to prevent dormancy.
- PA1: University Park, Pa.; silty clay silt; 2.1-3.0; 0.0-0.5; to prevent stress.</



# while ryegrass improvements continue

for bluegrasses under low-maintenance situations in more than two dozen locations. "A lot of the bluegrasses look pretty good under these situations — in how quickly they establish and their looks," he reported.

## RYEGRASS IMPROVEMENTS

Extraordinary advances are being made yearly in ryegrass breeding, Morris said.

"If you take the top cultivars in this (completed) test and compare them with the current test (planted in 1990), you will find there will

*The progress made over the past four or five years — in color, density, lower-growing growth habit — is amazing.'*

— Kevin Morris

probably be 30 new varieties or so that are better.

"The progress made over the past four or five years — in color, density, lower-growing growth habit — is amazing."

Morris said the supply of new varieties is probably limited. "But

you need to watch pretty closely because there will be a lot of varieties coming out on the market that are better than what's available now.

"I'm not sure yet if we've improved the stress and disease tolerance, but we've improved the appearance

of them a lot."

## TESTS A STARTING POINT

Morris called the four- and five-year test results "a starting point ... a guideline" for superintendents on the lookout for a purchase.

"Within the 'mean' figure (for each cultivar in the test), there is a varying amount of data," he said. "Some locations collected a lot more data than others. One location might be able to collect data all year around, while another can only do it four months. It can be a little misleading but, in general, one location

doesn't significantly impact the mean.

"You're trying to determine if there are some cultivars that really won't grow in an area, or that really stand out. Usually you have a group in the middle that are hard to separate out."

New cultivars of bluegrasses and ryegrasses were planted in 1990, and the first results from those plots will be made available this spring, Morris said.

In those tests, one-third to one-half of the cultivars were included in the last tests as well. The rest are new varieties.

## Ryegrass national field test tabulations

Name	BC1	DC1	ID2	IL1	IL2	IN1	KS1	KS2	KY1	MA1	MD1	MII	MO1	NE1	NJ1	NJ2	NM1	NY1	NY2	OH2OK1	OR1	OR2	PA1	PA2	R1	SD1	UB1	VA1	VA7	WA3	MEAN		
*Saturn	5.6	4.8	6.7	6.6	7.3	6.7	7.0	7.6	6.3	5.0	6.0	6.2	6.8	6.3	6.1	6.5	7.3	5.1	6.1	6.9	4.9	6.8	6.8	6.3	6.8	6.9	6.8	6.3	6.9	4.4	3.3	7.8	6.3
*SR 4000	5.4	3.5	6.4	6.2	7.1	6.5	6.9	7.0	6.1	5.0	6.4	6.0	6.6	6.0	6.8	6.6	7.5	5.5	5.9	6.8	5.0	6.2	6.2	6.4	6.4	6.6	6.8	6.9	4.8	3.1	8.2	6.2	
*SR 4100	5.4	3.7	6.4	6.4	7.7	6.6	7.0	7.1	6.1	5.3	6.3	5.7	6.9	5.7	6.5	6.0	7.1	5.4	6.1	6.5	4.9	6.3	6.3	6.3	6.6	6.9	6.5	6.4	7.0	4.7	2.8	7.9	6.1
*Dimension	5.5	3.8	6.7	6.4	6.7	6.4	7.0	7.4	6.1	5.3	5.6	6.2	6.4	6.0	6.2	6.8	7.4	5.0	5.6	6.6	5.1	6.9	6.9	6.5	6.6	6.6	6.5	6.6	6.5	4.4	3.5	8.0	6.1
*PST-M2E	5.7	4.6	6.1	6.2	6.8	6.8	7.1	7.4	5.9	4.8	5.9	5.7	6.6	5.6	6.2	6.4	7.4	4.9	6.3	6.9	5.1	6.9	6.9	6.5	6.7	6.3	6.6	6.5	6.8	4.4	3.2	7.2	6.1
*Pennant	5.8	4.5	6.4	6.3	7.4	6.5	6.6	7.2	6.0	5.1	6.2	5.7	6.6	5.9	6.0	6.0	7.3	5.3	5.8	6.5	5.2	5.8	5.8	6.0	6.4	6.7	6.7	6.4	6.4	4.8	3.8	8.1	6.1
*Commander	5.5	5.0	6.0	6.3	7.2	6.6	6.8	7.1	6.3	5.0	5.8	5.4	6.4	5.9	5.8	6.4	7.2	5.3	6.1	6.6	4.3	6.4	6.4	6.4	6.9	6.5	6.4	6.8	6.5	4.7	3.2	7.9	6.1
*Fiesta 11	5.5	3.8	6.5	6.4	6.8	6.7	7.0	6.9	6.0	5.3	5.5	5.4	6.5	6.2	5.9	6.3	7.4	5.3	6.1	7.1	5.1	6.3	6.3	6.4	5.6	6.4	6.6	7.1	5.8	4.7	3.6	8.3	6.1
*Repell	5.9	5.4	6.0	5.9	7.1	6.6	6.8	6.7	6.3	5.0	6.0	5.7	6.2	5.9	5.6	5.8	7.3	5.1	6.3	6.9	4.6	6.0	6.0	6.3	6.2	6.7	6.8	6.7	6.8	4.3	3.3	7.6	6.1
*Riviera	5.9	3.8	6.3	6.4	7.4	6.4	6.8	7.3	6.2	5.0	5.6	5.8	6.6	5.9	6.2	6.2	7.2	5.2	6.0	6.9	4.5	6.2	6.2	6.3	5.9	6.6	6.7	6.9	6.0	4.6	2.9	7.7	6.0
*Palmer	6.0	6.0	6.4	6.5	6.9	6.6	6.7	6.9	5.8	5.0	6.1	5.6	6.2	5.7	5.6	5.8	7.4	4.8	5.8	6.6	3.9	6.2	6.2	6.1	5.9	6.7	6.4	6.5	6.0	4.9	3.9	8.0	6.0
*Blazer 11	5.6	5.1	6.8	6.2	6.8	6.6	7.2	6.5	6.0	5.3	5.5	5.8	6.5	6.1	6.1	6.5	7.0	5.1	6.0	7.1	4.4	6.5	6.5	6.4	5.6	5.9	6.0	6.7	5.2	4.5	3.1	8.0	6.0
*Omega 11	5.7	2.6	6.6	6.2	6.3	6.4	6.9	7.2	6.2	4.9	5.7	5.5	6.4	5.9	5.7	6.0	7.5	5.1	5.7	6.8	5.1	6.9	6.9	6.2	5.9	6.3	6.4	6.6	6.5	4.5	3.4	8.3	6.0
*Charger	5.4	3.5	6.6	6.2	7.4	6.6	6.9	7.5	5.8	4.9	6.2	5.9	6.4	5.8	5.4	6.4	7.1	5.0	5.8	6.5	4.1	6.6	6.6	6.3	5.7	6.1	6.4	6.9	6.2	4.7	3.2	8.1	6.0
*Competitor	5.4	4.6	5.9	5.8	6.7	6.4	6.8	7.1	5.8	5.3	5.4	5.4	6.4	5.9	5.9	6.3	7.3	5.0	6.1	6.8	4.5	6.6	6.6	6.5	6.4	5.9	6.1	6.9	6.2	4.4	2.7	8.5	6.0
*Manhattan 11	5.8	4.3	6.3	6.3	6.6	6.4	6.7	7.3	5.6	4.8	5.8	5.8	5.9	5.8	5.6	6.1	7.3	4.9	5.9	6.9	4.5	6.5	6.5	6.5	5.9	6.2	6.2	6.4	6.1	4.7	3.1	8.1	6.0
*Dasher 11	5.5	2.9	5.9	5.8	6.5	6.5	7.0	7.4	6.1	4.9	5.8	5.6	6.5	"5,8"	6.2	6.1	7.2	5.2	5.7	6.6	4.8	6.2	6.2	6.4	6.2	6.5	6.6	6.5	6.5	4.7	2.8	7.2	5.9
*Edge	5.5	3.3	6.0	6.2	6.2	6.5	6.8	7.0	6.0	5.0	6.3	5.3	6.7	5.7	6.4	6.1	7.0	5.0	5.8	6.7	4.3	6.1	6.1	6.0	6.2	6.2	6.2	6.6	6.8	4.5	2.9	8.1	5.9
PST-2DD	5.5	3.1	7.1	5.6	6.9	6.4	6.7	6.2	5.8	4.9	5.1	5.4	5.5	6.1	5.5	6.4	7.4	5.0	x	6.9	5.2	7.1	7.1	6.5	x	6.6	6.3	6.9	6.5	4.1	3.0	7.7	5.9
*Citation 11	5.8	2.2	5.8	6.2	6.9	6.4	6.8	7.3	6.1	5.0	6.3	5.6	6.4	5.5	5.5	6.1	7.5	4.8	5.6	6.3	"5.5	6.4	6.4	6.2	5.7	6.2	6.3	6.4	6.8	4.5	2.9	7.8	5.9
*Prelude	5.7	5.1	6.1	6.0	6.9	6.4	6.8	7.3	5.6	5.1	6.1	5.4	6.1	5.5	5.4	5.7	7.1	4.7	6.2	6.5	4.3	6.1	6.1	5.7	6.4	6.5	6.7	5.6	4.6	3.5	7.7	5.9	
*Allaire	5.6	4.9	6.1	6.0	6.3	6.5	7.0	6.5	5.7	4.9	5.9	5.8	6.1	6.0	5.7	6.4	7.1	5.0	5.9	6.5	5.3	6.0	6.0	6.3	6.2	5.8	6.1	6.3	5.3	4.0	3.2	8.2	5.9
*Gator	5.6	4.9	6.1	6.1	6.2	6.4	6.8	6.7	5.9	4.9	5.6	5.4	6.1	5.9	5.4	5.9	7.4	5.0	5.8	6.8	4.5	6.0	6.0	6.3	6.0	6.4	6.5	6.6	5.1	4.8	3.2	8.1	5.9
*Lindsay	5.7	4.1	6.1	5.9	6.6	6.3	6.8	6.8	5.7	5.0	6.0	5.7	6.0	5.9	5.3	5.8	7.0	5.0	5.6	6.6	5.1	6.0	6.0	6.4	5.9	6.1	6.4	6.8	5.6	4.8	3.3	7.6	5.9
*Aquarius	5.4	2.8	6.9	6.5	6.1	6.2	7.2	6.7	5.3	5.0	5.1	5.5	6.0	5.8	6.3	6.5	7.2	4.6	6.3	7.0	5.0	6.5	6.5	6.5	5.9	6.0	6.0	7.3	5.4	4.0	2.9	8.3	5.8
*Tara	5.8	3.6	6.6	6.2	6.7	6.4	6.9	6.6	5.9	5.0	5.8	5.7	5.8	5.7	5.4	6.0	7.0	4.8	5.9	7.0	4.3	6.5	6.5	6.4	5.6	6.2	6.5	6.6	4.9	4.3	3.3	7.7	5.8
*Goalie	5.6	4.5	6.3	5.9	7.6	6.4	6.7	7.0	5.7	5.1	6.2	5.4	6.3	5.3	5.4	5.3	7.1	4.8	5.9	6.5	4.3	5.3	5.3	5.7	5.8	5.9	6.5	6.8	5.7	4.8	3.4	7.3	5.8
PSU-333	5.6	4.7	5.8	5.8	7.2	6.5	6.7	6.9	5.7	5.2	5.8	5.5	5.9	5.8	5.0	5.5	7.3	5.1	5.6	6.6	4.7	5.4	5.4	6.0	6.2	6.1	6.5	6.5	5.4	4.5	3.1	7.3	5.8
*Patriot	5.6	4.2	5.8	5.8	7.0	6.3	6.6	7.4	5.6	4.9	5.2	5.1	6.4	5.9	5.2	5.4	7.4	5.0	6.2	6.8	4.7	5.6	5.6	6.2	6.2	5.8	6.5	6.7	5.5	4.5	3.1	7.0	5.8
*Rodeo	6.0	4.5	6.5	5.8	6.1	6.4	6.8	6.1	5.5	5.1	5.1	5.5	6.0	5.9	5.7	5.7	7.0	4.8	5.9	6.6	5.0	5.9	5.9	6.2	6.2	6.3	6.3	6.3	4.8	3.9	3.1	7.9	5.8
*Birdie II	5.4	3.9	6.0	6.1	7.0	6.3	6.6	7.0	5.8	4.9	6.0	5.3	6.3	5.7	4.7	5.2	7.5	4.9	5.7	6.1	4.3	6.1	6.1	6.1	5.9	6.4	6.3	6.1	6.4	4.6	2.6	7.6	5.8

\* — Varieties available in the marketplace.

## Descriptions of sites for ryegrass tests

The site descriptions and management practices for the 1987-90 National Perennial Ryegrass Test follow, with location listed first, then soil texture; nitrogen (pounds per 1,000 square feet); mowing height in inches; and irrigation practiced:

BC1: BC1: British Columbia; loam; 2.1-3.0; 1.6-2.0; only during severe stress.

DC1: Washington Monument Grounds; loam; 1.1-2.0; 2.1-2.5; no irrigation.

ID2: Post Falls, Idaho; silt loam and silt; 2.1-3.0; 1.1-1.5; to prevent stress.

IL1: Urbana, Ill.; silt loam and silt; 3.1-4.0; 2.1-2.5; to prevent stress.

IL2: Carbondale, Ill.; silty clay and clay; 4.1-5.0; 2.1-2.5; to prevent stress.

IN1: West Lafayette, Ind.; silt loam and silt; 3.1-4.0; 2.1-2.5; to prevent stress.

KS1: Manhattan, Kan.; silty clay loam; 3.1-4.0; 2.6-3.0; to prevent stress.

KS2: Wichita, Kan.; sandy loam; 3.1-4.0; 2.1-2.5; to prevent stress.

KY1: Lexington, Ky.; silt loam and silt; 2.1-3.0; 1.6-2.0; only during severe stress.

UB1: Beltsville, Md.; silt loam and silt; 2.1-3.0; 1.1-1.5; to prevent stress.

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

MD1: Silver Spring, Md.; sandy loam; 3.1-4.0; 2.1-2.5; to prevent stress.

MI1: East Lansing, Mich.; sandy loam; 2.1

# Flood waters jeopardize Texas golf courses

Continued from page 1

early July. The course was expanding to 18 holes when the flood hit. All nine existing greens were eight to 10 feet under water, he said.

"Fortunately we had just cleared and staked the new nine. If we were farther along, it could have been a lot worse," the elder Fletcher said.

As it is, the Fletchers will have to indefinitely delay work on the new nine they had hoped to open in June. The course was not insured for flood damage, although they expect some federal disaster relief.

The owners plan to wash the silt off the existing greens, using an oil field vacuum to help, and re-open as soon as possible as a nine-hole operation, he added.

"It's a matter of economics," Fletcher said.

## EFFECTS FAR-REACHING

Downriver courses, like Valley Lodge, were hit particularly hard as water managers were forced to open upriver dams before they burst.

"Lake Waco is the major reservoir in this area," said Jim Moore, director of the U.S. Golf Association Green Section's Mid-Continent Regional office in Waco. "The previous record was 18 feet above normal. It got as high as 33 feet during the worst of the storms."

Stephen F. Austin Golf Club along the Brazos River 50 miles west of Houston received just five inches of rain, according to superintendent Doug Brown. But water rushing down from the north raised the river level 20 feet, flooding seven greens, five tees and parts of every fairway.

Brown lost 60 feet of turf and earth behind one green and won't



know whether it will need rebuilding until water levels drop. Other greens had as much as five inches of silt and were being washed off with high-pressure hoses attached to the irrigation system's quick couplers.

Much of the over-seeded ryegrass still looks green, Brown reported. But he won't be able to fully assess damage until the underlying common Bermudagrass fairways and Tifdwarf greens come out of dormancy this spring.

It's been a tough start for Brown, who took over the course 2-1/2 years ago. He resurfaced nine greens that summer, only to lose them to a winter frost. Now the flood may take several more.

"This is the worst flooding I've ever seen," said Brown, who has

worked on and off at Stephen F. Austin since 1976.

Pecan Grove Country Club in Richmond was another Houston-area course suffering significant damage. Eighteen inches of rain fell on the course from just before Christmas through Jan. 6, according to superintendent Noe Villarreal.

Standing water caused large turf areas to simply rot, he said. The course had been officially closed 22 days through Jan. 6, although many of the club's 1,400 members turned out to play during the infrequent sunny days.

Villarreal said he will not replant the damaged over-seeded ryegrass, poa annua and bentgrass. He will instead wait until the Bermudagrass starts greening up



At left, workers at Stephen F. Austin Golf Club tackle cleanup on the 12th green where floods left a pile of silt and sand from one to 30 inches deep. Above, water reached five feet high in the maintenance building, ruining sensitive computer and controller equipment and records at Ridgewood Country Club in Waco, Texas.

in late February or early March to take corrective action.

"The best thing for me to do is wait," he said. "I won't oversee because first, it's too expensive, and second, it would just be competition for the Bermudagrass."

Houston wasn't the only area ravaged by floods.

Farther north in Austin, Onion Creek Country Club had two tee boxes and a green washed away. Nine other greens were submerged and five may need rebuilding due to silt damage, according to superintendent Larry Clanton.

Bloated by 15 inches of rain in 4-1/2 days, Onion Creek claimed 50 of the course's 57 sand bunkers and a bridge.

Clanton pegged the clean-up costs at \$218,000, not including

the five additional greens that may or may not need rebuilding.

"We lost our maintenance building in a fire in August of 1989. Then we lost 12 greens to the cold weather that winter. Now this. We've had our share of calamities the past few years," Clanton said.

Waco, midway between Dallas and Austin, didn't escape Mother Nature's wrath. Located along the shores of Lake Waco, the rising waters covered four greens at Ridgewood Country Club, leaving one submerged for three weeks, reported superintendent Mandel Brockinton.

The lake deposited debris two feet deep in a 2,000-yard-long, 10-yard-wide swath. It included boats, trash, fishing equipment, logs and silt, Brockinton said.

The water also rose seven feet high on the walls of the maintenance building, destroying the irrigation system's computer and controllers, all of Brockinton's records, \$8,000 worth of tools and \$24,000 worth of siding. The course's three pumps were submerged, although Brockinton hopes they can be rebuilt rather than replaced.

Assessing damage to the bentgrass greens and Bermudagrass fairways had to wait until the waters subsided, Brockinton said.

However, the course's bentgrass nursery, which germinated the day before flood waters hit, was destroyed, he added.

## SILT A KILLER

While the immediate damage to these and other courses is terrible, the biggest costs could still lie ahead, the USGA's Moore said. Silt is the culprit.

Once in the green, silt works its way into the upper root zone and forms an impervious layer. Water can't penetrate it and even greens built to USGA specifications will drain poorly.

Superintendents will do their best

Continued on page 27

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# Cornell investigates Milorganite's effectiveness vs. deer

Research has shown that the fertilizer Milorganite may be used to discourage deer browsing.

Milorganite may offer some relief from deer damage and applied research has been initiated to qualify the product's effectiveness in an urban area where deer predation is a problem.

A study at Cornell University's Cooperative Extension Service in Dutchess County, N.Y., is attempting to quantify the result of using Milorganite as an effective deer deterrent. Thus far, the study

indicates it is effective in deterring deer from browsing on valuable ornamental plants and shrubs.

Milwaukee has produced the 100-percent natural organic fertilizer product, a co-product of the city's wastewater treatment process.

Initial results of the Cornell deer study show Milorganite has deterred deer from browsing on Hosta and Taxus (yews) when the fertilizer is applied around the target shrubs' base. The rate of application is at five pounds per 100 square feet. Milorganite is broadcast on the soil



surface around the target plant material.

According to the study, Milorganite should be applied one to two times per month and after each snowfall in the winter months. The researchers feel the scent of the product may be the reason the deer choose to browse elsewhere.

Les Hulcoop, Cooperative Extension agent for Dutchess County, who is captaining the study, said, "The deer are definitely staying away from the Milorganite applications at this time. We feel some of the commercially labeled treatments on the

market do quite well in checking deer damage, but the plants grow out of the protection during spring and summer. Additionally, the users do not like the white film some of these treatments leave on the growing plant material."

Many of the deer repellent treatments lose their effectiveness in winter after temperatures fall below 10 degrees F.

The study will also assess predation control if Milorganite is hung in bags from the target plants throughout the winter.

## Flood

Continued from page 26

to wash off and aerify through the fine silt and clay deposits. But there is no way to clean it all away and aerifying affects just 5 to 7 percent of a green's surface area, Moore said.

If this summer is wet, water will pool on the silt-laden greens. If it's a dry summer, the silt's effects could be masked. But the silt will remain in the soil profile, moving lower as continued top dressing adds an average quarter-inch per year to the green's height.

"In Kansas, for instance, a soil profile will show a dust storm that deposited large amounts of silt 20 years ago," Moore explained. "Eventually a wet summer will come along and a course will develop black layer problems from the silt, no matter how much the superintendent tries to wash off the silt and aerify his greens now."

Stripping off the top inch of greens material, fumigating and then replanting with sod, sprigs or seed is the only surefire solution, Moore said.

Unfortunately, it is expensive and means closing the course or using temporary greens for many weeks. That's a tough sell to members or owners.

Stripping in the spring would be best for Bermudagrass greens and would mean closing eight to 12 weeks, Moore said.

Waiting until fall, with frequent aerifying throughout spring and summer, would work best for bentgrass, the USGA specialist noted.

"A good superintendent could start a two-acre bentgrass nursery this spring and have sod ready to transplant come fall. It's a great opportunity to convert to a better variety of bentgrass and get rid of things like goosegrass, poa or whatever.

"A good sodding job could have the greens ready for play in six weeks. Seeding would mean waiting a lot longer, perhaps the next May. But seeding is better agronomically than sodding.

"Every course is different and there is no one solution. But members tend to react better to closing the course because of major problems, like floods, than they do for the routine stuff. The problems are so obvious, they can understand it."

GOLF COURSE NEWS

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# THROW A KILLER LAWN PARTY.

## South Central

HOWARD GARRETT — LIVE

J. Howard Garrett, who has published and spoken widely on organic maintenance and

gardening, now has a radio talk show in Fort Worth, Texas.

WBAP's "The Natural Way" features Garrett on Sundays from 8 a.m. to noon at 820 on the AM dial.

Garrett gives tips on a wide range of organic approaches to grounds care, from planting to fertilizing, mulching, mowing, weeding and pruning, controlling insects and diseases. One minute he delivers the ingredients for a baking soda fungicide, another minute a garlic/peppertea insect repellent.

Garrett has written "J. Howard Garrett's Organic Manual" and "Plants of the Metroplex III."



Missouri Lawn and Turf Conference and Trade Show. The show is scheduled Dec. 15-17 in Columbia.

More information is available from MVTA, Conference Office, 344 Hearnes Center, University of Missouri, Columbia, MO 65211;

## Northeast

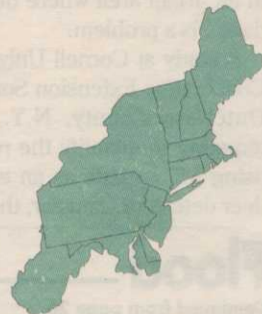
WEEKS NEW HAMPSHIRE'S PRESIDENT

Dick Weeks of Candia Woods Golf Links at Charmingfare in Candia has been elected president of the New Hampshire Golf Course Superintendents Association.

Weeks succeeds Jim Hillier, who decided not to run for a third term but to stay on as a director for another term.

Also elected were Vice President Tom Rowell of Cochecho Country Club in Dover, Treasurer Jeff Brown of Green Meadow Golf Course in Nashua and Secretary Mike Ross of Lake Sunapee Country Club in Andover.

The new board consists of Bill Zuraw and Pat Kriksceonaitis, who retained their seats; new members Mike Bryant of Amherst Country Club in Hollis and Joe Langley of White Mountain Country Club in Ashland; and Greg Misodoulakis, who was elected to keep his position after completing the term of Steve Wilson.



## North Central



PESTICIDE TRAINING

The Missouri Valley Turfgrass Association is providing three state of Missouri Pesticide Technician Training Courses this spring.

MVTA has sessions scheduled Feb. 24-25 in St. Louis, March 2-3 in Kansas City and March 5-6 in Springfield, according to President David C. Stein.

The association is also offering recertification for certified pesticide applicators at the

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## Southeast

### MID-ATLANTIC AGCS AWARDS SCHOLARSHIPS

The Mid-Atlantic Association of Golf Course Superintendents has awarded \$625 scholarships to eight students majoring in turf maintenance.

At Jan. 6 ceremonies in conjunction with Turfgrass '92, Vince Bagli of WBAL-TV in Baltimore presented the scholarships to Rutgers University student Ed Brown and the University of Maryland's Michael Augustin, Ryland Chapman, David D'Orazio, Gary Harshman, Mark Kingora, John Pollaro and David Smith.

"A very important priority of the association since its founding has been the education of fellow and potential superintendents," said MAAGCS President Ken Ingram of Columbia Country Club in Chevy Chase, Md.

That priority has translated into scholarships for 12 years, according to the association's education chairman, Dean Graves of Bethesda (Md.) Country Club.

"The MAAGCS is especially proud of this fund because we are able to extend a helping hand to financially needy students in a down economy," Graves said. "The scholarship fund has grown enormously this last year. The support of students is something the association is very proud of, and to be able to increase the funds by so much in this economy makes it even more precious."



## Mountains



### CLOSER RELATIONSHIPS A MUST

Union Hills Country Club superintendent Paul McGinnis told the 6th annual Greatest Show on Arizona Turf that, increasingly, superintendents and golf professionals are being recognized with equal credibility.

McGinnis attributed the recognition to superintendents' efforts to enhance their professional image.

He said the Cactus & Pine Golf Course Superintendents Association of Arizona has grown ever closer to the Southwest Section PGA.

Predicting that superintendents will assume a leading role with respect to issues facing the golf world, McGinnis said allied association will be hard pressed to keep pace with efforts of the Golf Course Superintendents Association of America and local chapters.

Club Managers Association of America Executive Director James Singerling told the conference national organizations are constantly working together.

Saying golf has become a scapegoat for other businesses that are damaging the envi-

ronment, Singerling said the industry must present itself as a permanent and positive member of the community and a positive environmental and economic influence.

Singerling advocated a "team" approach

by superintendents, golf pros, general manager and other administrators in communications with a club's governing body.

Each member of the team should see "the big picture" at each club, he said.

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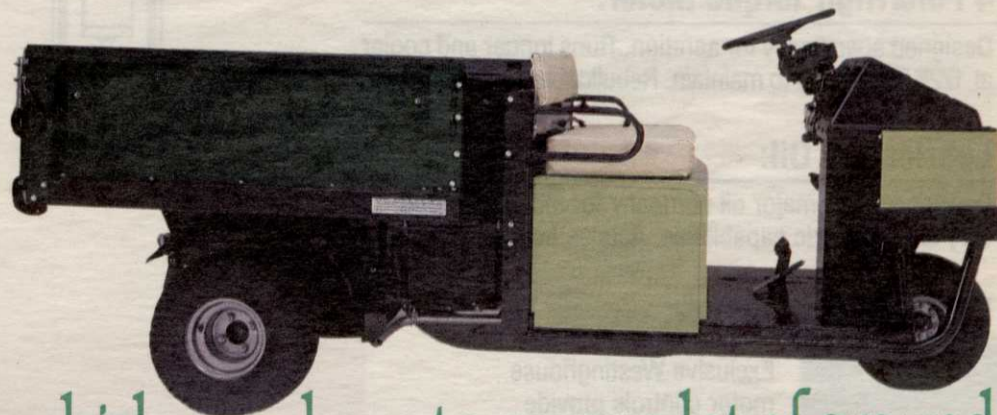
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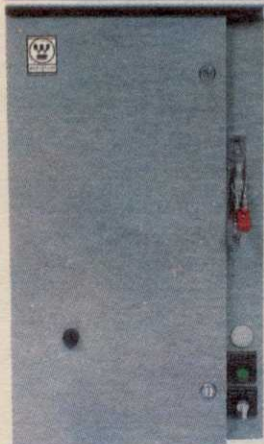
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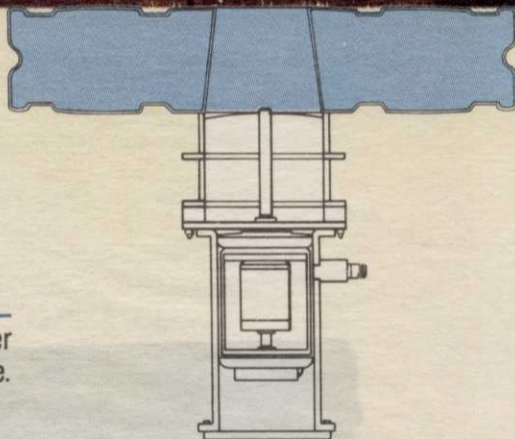


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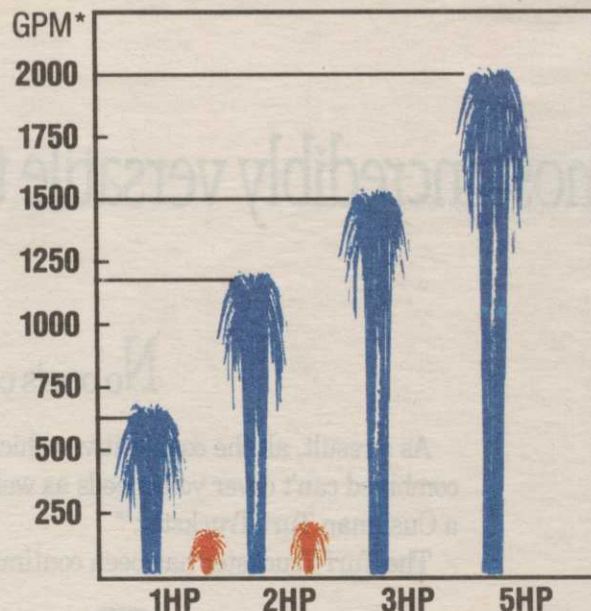
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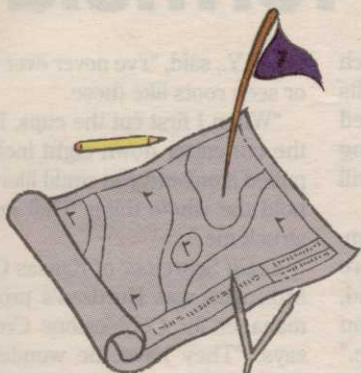
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## Briefs

**NEW ARCHITECT JOINS HALE'S DESIGN TEAM**

Hale Irwin Golf Services recently added another architect, Stan Gentry, to its team.

Gentry enhances the company's relationship with Dick Phelps in creating "one of the most experienced teams of golf course architects in the country," Irwin said. "We're pleased to have Stan aboard."

Gentry will coordinate each Irwin design project with Richard M. Phelps, Ltd., the golf course architectural firm associated with the company.

Gentry holds a master's degree in landscape architecture from Kansas State University and a bachelor's degree in horticulture from the University of Missouri. He has had experience in landscape design and golf course architecture.

**PALMER HIGH ON TREESDALE LAYOUT**

PITTSBURGH — In North Pittsburgh, construction has begun on Treesdale, a master-planned community featuring a 7,111-yard golf course designed by Palmer Course Design Co.

"From the beginning, Treesdale provided great potential for a championship course. It will be spectacular and beautiful in many ways," Arnold Palmer said.

Palmer noted the maximum use of the area's natural beauty in the course's design plan. "I have used every acre of terrain — wooded valleys, open meadows, and rolling hills — to create a wide variety of challenges in a picturesque setting. The result is a spectacular mix of landscape with panoramic views."

**BAYOU SIGNS ON SOUND FOR CLUBHOUSE**

LARGO, Fla. - Bayou Club has awarded a contract for construction of the luxury country club's new clubhouse to Sound Construction Group, Inc. of Clearwater.

"Construction of the clubhouse will make a significant contribution to the Pinellas County economy," said President Randall E. Gentry.

After completion of construction, finishing of interiors and furnishings and remodeling of existing facilities, total cost of the 42,000-square-foot clubhouse at Bayou Club is estimated at almost \$4.5 million.

Encompassing close to 400 acres, Bayou Club's master plan calls for 350 estate homes, an 18-hole championship golf course designed by Tom Fazio which is already in play, the clubhouse, and many country club amenities.

**AUTOS, GOLF PARTNERS IN PARK**

BLACKS CREEK, Idaho—A \$30-million theme park featuring a World Class Classics antique auto museum and an 18-hole golf course is being contemplated for a site 15 miles southeast of Boise.

The project, which may include the financial backing of Eva and Zsa Zsa Gabor, will be built on a 150-acre tract that could eventually include a motel and convention center, trout-stocked fishing lake, and a retirement village.

# Proving a revolutionary old idea

By Mark Leslie

An old idea has found new life with Hurdzan Design Group in Columbus, Ohio.

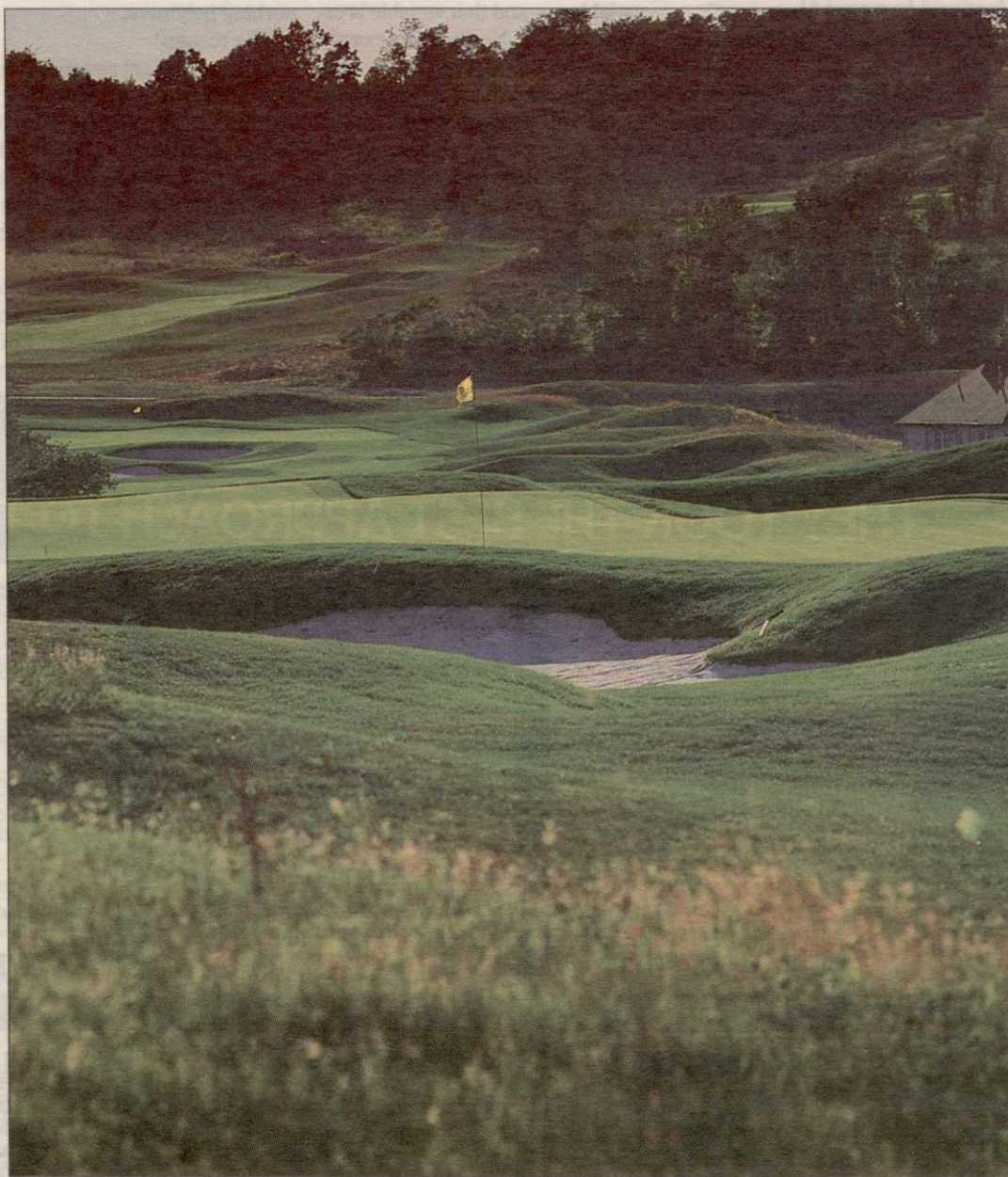
Saying he has become a believer — a believer that theories are theories and reality is reality, architect Mike Hurdzan is now offering clients an old-fashioned alternative to high-tech green construction methods. He has been developing all-sand greens that are easier to grow grass on and cheaper to build.

That is a turn away from U.S. Golf Association specifications, which recommend a laboratory-tested 12-to 14-inch top mix of sand and organic matter, which is placed over an intermediate sand layer, which is underlain with a pea stone blanket and tile.

It is also a return to ancient times in terms of golf course construction, when earthmoving was minimal, irrigation was rare and naturally adapted grasses were planted and maintained, and when the superintendents' main cultural practice was frequent topdressing with pure sand.

Hurdzan's alternative method is simply 12 to 14 inches of pure selected sand, placed over tile. There is no blending of organic matter, no intermediate sand layer, and no gravel blanket. The key is finding the proper sand, which

Continued on page 32



An example of pure-sand greens are the 13th green (foreground) and 14th green (background) at Cobblestone Creek in Rochester, N.Y. This photo was taken when the greens were 10 months old.

Photo courtesy of course co-designer Craig Schreiner

## Golf communities successes in right situations

Some going under, some hot, some being salvaged

By Kit Bradshaw

Are golf course residential communities going the way of the dinosaur, lumbering into the tar pits of extinction?

If you bought an equity membership in a club that is now on the ropes financially, or

See related story, page 51.

if you can spot your one neighbor three blocks away in a residential community that never got off the ground, your answer would probably be yes.

If you are casting about for financing of a golf course residential community, your resigned answer is yes.

But if you are the sales director of a community that is still viable, despite slower-than-expected home sales, your answer is most likely no. And you



The Carolina Club in Margate, Fla., is a prime success story. Developer Franklin Golf Properties, Inc. built an upscale public golf facility with country club amenities. The course, designed by Karl Litten, is target-oriented with many water holes. Fees are up to \$55 including cart in the peak season.

hope it stays no.

When you talk to people in selected areas of the country, there

is a checkerboard of responses to the question.

In general, golf course residen-

tial communities, like anything connected with real estate today,

Continued on page 52

# Simplicity wins over complexity in formula

Continued from page 31

has not been a problem so far, he says.

Holding a Ph.D. in environmental turfgrass physiology, a master's degree in turf studies, and a bachelor's degree in turfgrass management, Hurdzan has put his scientific knowledge to work. And, instead of complexity, he has found simplicity to be the answer and a return to the benefits of pure sand culture.

"We've just taken out one of the

variables — and that variable is organic matter. No one can exactly predict how and when that organic matter is going to break down in the mix and to what end product, and so we're not taking a chance. We're making this nice and simple," says Hurdzan, a former president of the American Society of Golf Course Architects.

"Simple" means no soil, no peat, no rice hulls, no bark. Hurdzan's mix contains just sand, with micro-nutrients, fertilizers and water-ab-

sorbing polymers.

The results?

"Our greens are awesome," says Joe Perry, superintendent at Hurdzan-designed Eagles Landing in Berlin, Md., which opened last summer. "They are beautiful and held up all summer. The (grass) roots average six to eight inches deep."

Perry, who was superintendent for 4-1/2 years at Crestbrook Country Club in Watertown, Conn., said that while other area courses

had trouble after a recent five-inch rainstorm, Eagles Landing, with its high percolation rates, "flushed right out. The greens have amazing drainage and playability. They will never be closed."

Galen Scharenberg, superintendent at Hurdzan's new Sycamore Creek Golf Course in Richmond, Va., said, "I can't see why you wouldn't build this way all the time."

Rusty Madden, superintendent at Cobblestone Creek, a course Hurdzan last year designed in Vic-

tor, N.Y., said, "I've never ever had or seen roots like these.

"When I first cut the cups, I set the cut cutter down eight inches, pulled it out and you could literally hold the whole thing. That really struck me."

Craig Schreiner of Kansas City, Mo., who was Hurdzan's project manager for Cobblestone Creek, says: "They have the wonderful greens — the finest in Rochester, and there are some great courses in Rochester."

Schreiner said, in fact, that building 12-inch sand greens was "such a great idea, we put in six-inch sand tees. And they are awesome."

Initially hesitant about all-sand greens "because I'm used to working on soil greens and was concerned about keeping enough moisture in there," Madden said it was an excellent choice he would recommend to others.

The superintendent for four years at Oak Hill's East Course, Madden said he was persuaded it could work at Cobblestone Creek when, during a planning meeting, Wadsworth Construction Co. President Paul Eldredge was asked if he would build all-sand greens.

"If it were my own course and I had the perfect sand, yes, I'd do it," Eldredge recalls saying. He adds that he was discussing a Northern course and he would think differently in a desert site where the sand could percolate too fast.

## HOCUS-POCUS?

Removed as a member of the USGA Greens Committee, Hurdzan says: "I think the industry is making too much hokus pokus out of building greens... Yes, they grow well when built to USGA specs. But there might be another way, and that way could lead to a better, healthier plant. That is what I am searching for."

It also costs around \$1 to \$2 less per square foot — or \$120,000 to \$250,000 on a normal 18-hole course, Hurdzan estimates. "If you can save that, plus 10 percent for the life of the loan, that's a lot of money," he says. "Or it might mean the difference between affording a very fine drainage and irrigation system as opposed to a lesser system. Personally, I would rather use the money for more sod. However, if the client wants USGA greens, we build them to perfection. It's the client's choice."

In 1957 at the age of 13, Hurdzan worked with his mentor, course architect Jack Kidwell, when Kidwell built a 100-percent sand green and "it was the prettiest green we ever had," Hurdzan recalls.

In the early 1970s, Hurdzan visited the Palm Desert, Calif., site where Arnold Palmer-designed Ironwood Country Club was being built with all-sand greens by contractor Keith Dewar.

That memory stayed with him. Then, several years ago, when

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**Meadow Lake Golf Course**

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**TFC TEXTRON**

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# for a problem-free green

Hurdzan was building The Centennial in Canada, heavy rains prevented getting peat on the greens in the fall and again the next spring.

"The course had to get open, so we took a chance, smoothed the greens up, seeded them to 100 percent sand, applied soil amendments and the greens were absolutely gorgeous," he said.

"So I am convinced we don't need the organic matter. But yes, we need some soil amendments."

Cobblestone Creek, Eagles Landing and Sycamore Creek are results of that conviction.

Hurdzan's method includes laying the four-inch drain tiles in six-inch-wide trenches and covering the trench, only, in pea gravel. On top of that goes 12 inches of sand. In the top two to three inches of the sand, he mixes four pounds of super-absorbent polymer, 20 pounds of STEP (a Scotts Co. micronutrient mix), 30 pounds of Sand-Aid (a seaweed extract), 20 pounds of 18-5-9 fertilizer, 20 pounds of Milorganite (which is Milwaukee sewage sludge), and 10 pounds of sulfur-coated urea, per 1,000 square feet.

## KEEPING IT SIMPLE

"When you start with sand you have an inert but predictable mass," Hurdzan says. "If you add organic matter you don't know what you have. Sawdust, rice hulls, leaf mulch, composted sewage sludge — it's all so variable. There's no definition of organic matter. Aspirin is aspirin, but peat varies.

"I'd rather blend in things that will react predictably."

Under the normal method, Hurdzan says, "The danger is that we start with a sterile sand mixed with an organic substrate. Then, at grow-in (the first one to two years), we get weird diseases because organisms can just move into that sterile mix."

Scharenberg, who has worked at The Links and Eagle Sticks courses in Ohio, and had to rebuild two greens at Eagle Creek in Naples, Fla., agrees with the positives of a pure sand root zone.

"I know my greens profile is not going to change," he says. "I also like the loose profile because, when you're pushing the roots for grow-in, they go right down for you. And once you get roots that deep you greatly reduce the risk of stress."

Essential to Hurdzan's all-sand plan is getting the right sand.

"I caution that you can't do this with every sand," Hurdzan says. "We search for sand that falls within guidelines. I'd like to see an infiltration rate at 25 inches per hour or less; a percolation rate that when compacted is at 20 inches or less; a water holding capacity in the 15- to 25-percent range; and 1 or 2 percent silt and clay.

"But most important is uniformity in the sand particles. I like it in the one-half to one-millimeter size. That's almost the same sand as ev-

eryone uses."

Madden agrees. "I feel the key to the whole thing was in the selection of the sand... A lot of sand has too many different particle sizes and the particles tighten up. I know guys with sand-peat greens who, after two or three years, have to deep-tine aerify. That doesn't make sense to me, agronomically. Something is wrong," he says.

"First in importance is the right sand. Get the subgrade right and the subgrade drainage right. The

next goal is, keep it simple. Bentgrass wants to grow. Roots want to go down in the sand... I feel whatever you can do to simplify the process, do it."

"We've all been like sheep," following guidelines that recommend adding organics to sand in the root-zone mix for greens, Hurdzan says. "I was a sheep, too. Now I'm a lion."

## YEAS AND NAYS

This all-sand program is not new.

Continued on page 34

*We've just taken out one of the variables — organic matter. No one can exactly predict how and when that organic matter is going to break down in the mix and to what end product, and so we're not taking a chance. We're making this nice and simple.'*

— Dr. Michael Hurdzan



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**RANSOMES**

# Hurdzan's greens recipe challenges the standard

Continued from page 33

"The problem is that too few golf course architects or contractors have the technical or scientific background to challenge the standard," Hurdzan says. "It was simply easier to build them to conventional guidelines than to question if there is a better way."

"I guess it is my obligation, given my training and position, to be the dissenter. I simply ask, 'Why?' and 'How do you know that?'"

Hurdzan adds: "With all the turf research in the past 30 years, surely someone could offer definitive performance comparisons between green construction methods. But to my knowledge, no one has proven any method to be one bit better in terms of turf growth, water conservation, pesticide reduction, or fertilizer savings. Just a lot of theory, no proof."

Advocates of organic matter say their reasons for adding organics are:

- "To increase the cation exchange capacity (the holding capacity of vital nutrients). Yes, but that doesn't mean the amendment releases nutrients to the plant. That only happens when the organic matter decomposes or the cation is displaced by a free cation with a greater affinity.

- "It holds water. Yes, but will it give up moisture to the plant? Grudgingly... Water retention? Just turn the sprinklers on more until it is grown in more. We're only talking a couple hundred gallons of water.

- "It gives resilience to sand. It makes sand soft so it holds the ball. But you're trying to grow a good pad — mat layer. Let the mat (one-quarter to one-half inch deep) be the pad.

- "Micronutrients. That's why we add them, too. And we're not complicating it by having it tied into organic matter."

Hurdzan contends: "The essential ingredient for good greens is not sand. It is not tile drainage, type of grass, irrigation system, fertilizer program, pesticides, mowing equipment, aeration, top-dressing, or consultant's advice.

"Each of these influences the quality of a golf green. But none of them is the essential element. The essential element is the golf course superintendent. No combination of factors will work without the careful manipulation of them by the golf course superintendent who, through his experience and knowledge, can anticipate the deleterious effects and apply well-balanced preventive measures."

Hurdzan even questions whether all 18 greens need to be exactly the same, for each will receive its own maintenance regime based upon its location.

"Given a set of greens of exactly the same root zone mix, but located differently — on top of a windy hill, in a protected valley, in full sun, in shade, in Georgia, in Michigan —

would you treat them all the same? Of course not, for each has its own micro-environment and susceptibility to desiccation, disease, and dormancy. My goal is to provide the superintendent with each green predictable within itself, not to its neighbors. The fewer the number of variables the superintendent must contend with, the easier it is for them to manage."

Hurdzan believes natural processes of that micro-environment will amend the sand with organic

*I guess it is my obligation, given my training and position, to be the dissenter. I simply ask, "Why?" and "How do you know that?"*

— Dr. Michael Hurdzan

matter produced by the plants growing there.

"Just grow the turfgrass vigorously and let the sloughed-off roots and natural organic debris provide

the organic constituent to the sand," he says. "This happens within a year or two.

"I am constantly searching for ways to improve green mixes. One

new one that shows lots of promise is Isolite, which is said to hold water and nutrients in the soil until the plants need them. The problem is that it adds more than \$100,000 to green construction and there are not yet enough tests to prove its advantages. To me it is simply a matter of cost-to-benefit ratio."

#### THE NEGATIVES

Perry and Madden both report they are using more fertilizers than

Continued on page 35

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## Transamerican blending micro-nutrients for jump-start

Operating on the principle that soil and chemical laboratories are the doctors, and that soil blenders are the pharmacists, Transamerican Soil Blenders is experiencing success with a new prescription in golf course green construction.

Troy McNeil of Transamerican, which mixes sand and other media for golf course greens around the country, said: "We inject micro-organ-

isms into the mix of sterile media to speed up the maturity of greens. Bacteria breaks down thatch."

"We're trying to take the guesswork out of it. This way, it's easier to deal with the growing profile," McNeil said.

Since fertilizers have no bacteria, companies like O.M. Scott are starting to help with appropriate changes to their

product lines, he said.

"It's important that we have a C/N (calcium/nitrogen) ratio in balance. If not, it's difficult for the superintendent to maintain the turf. Keeping the growing media in balance gives the superintendent the ability to manage with ease, and we can do that from the start," McNeil added.

He said maturity "increases the capacity of turf to heal from

spike wounds, et cetera.

"And, like body chemistry, if it's in perfect balance it can heal quickly. The green, especially in the early stages of development, is the same. If the pH is out of balance, for instance if it's below 6.5, you've got disease problems."

Number of rounds played, he added, is "the bottom line on a course."

## Hurdzan

Continued from page 34

normal, and they face localized dry spots.

"My biggest problem is isolated dry spots daily," Perry says. "With pronounced slopes on some greens, and a lot of wind on the course, I will have problems with dry spots."

Madden says sand tends to form isolated dry spots and can become hydrophobic—fighting water. Yet, he adds, using sand unconfuses the matter. You're not introducing a foreign element that has to be a perfect mix. For the long haul, it's going to work out for you."

Hurdzan says: "All greens are susceptible to localized dry spots, regardless of how they are built. I've seen localized dry spots on university turf plots using every type of rootzone mix imaginable, and most often hand-mixed in small batches. I see about 100 courses a year and, during certain times of the year, most of them have localized dry spots."

As for higher fertilizer costs, Perry says: "We use organic fertilizer continually because, with all-sand greens, you use a lot of fertilizers... We will require 15 to 20 pounds per 1,000 square feet of nitrogen per year compared to the typical six pounds."

"My green fertility program has 15 different types of products. The program costs at least double the normal green. It costs \$10,000 a year compared to \$4,000 to \$5,000, plus extra labor and spot watering."

"Joe makes a good point," says Hurdzan, "but an extra \$300 per green compared to the initial saving, plus the dependability of these greens, seems like a small cost."

"If my client saved \$150,000 or more in initial construction, he doesn't mind buying an extra \$5,000 in fertilizer for the first couple of years. After that, these greens perform the same as greens constructed by other methods, for they have produced their own organic matter."

Madden says he is using more fertilizers and micro-nutrients — projecting a rate of seven to nine pounds per thousand square feet.

But Scharenberg likes the idea of being able to fertilize greens "as much as you want during grow-in because the sand percs so quickly. I use quick-release fertilizer. It keeps the price down and the fertilization up. You can make 2-1/2 times the applications for the price of one slow-release application."

Wadsworth's Eldredge says it's basically an economic decision.

"It's the developer's decision. Is it worth eliminating the mixing operation and cost of peat? Or is it cheaper to spend more on water and nutrients?" Eldredge says.

### FEAR AND OPEN-MIND FACTORS

Hurdzan and Eldredge say architects and builders have been afraid to use greens construction techniques other than USGA recommendations.

"Architects have to recommend to do what the USGA tells them, or

Continued on page 37

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# Rees' opening act earns him marquee value

By Mark Leslie

It's getting to be an Open-and-shut case: If your golf course is hosting an upcoming U.S. Open, commission Rees Jones to modernize and beautify it—sort of like hiring Vidal Sassoon for an aging lead actress.

Baltusrol Golf Course in Springfield, N.J., is the latest Open course in a growing list to hire Jones. First there was the Country Club at Brookline (Mass.) in 1988, then Hazeltine National in Chaska, Minn., in 1990, then Congressional Country Club in Bethesda, Md., in 1991, and now Baltusrol's Lower

Course in 1993.

Jones feels getting the Brookline job—and winning accolades for it—led to Hazeltine ... and the rest is history. "I've just been very lucky," he says.

"We decided to go with Rees because he has a good reputation of being able to work on courses and keeping integrity as far as the original design is concerned. We wanted to keep it as close to what (A.W.) Tillinghast had intended as possible," said Dick Miller of Harding Township, N.J., Baltusrol vice president and general chairman of the 1993 Open.

Miller added that the club would have modernized the course regardless of the Open even though the U.S. Golf Association did not ask for changes.

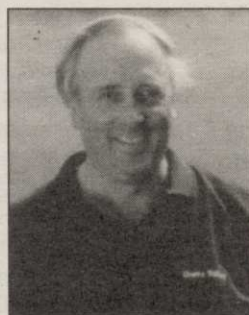
Jones said: "When you change an old course—especially a renowned course—you're subject to more criticism than if you rebuild a new one.

"Then, when people come and view what you did—the players, press and officials—and all give you kudos, the word spreads that you have sensitivity in working with older golf courses. It's a major risk for any club to make any change to a course like Baltusrol, so they want to hire someone they know is not going to try to reinvent the wheel."

Jones, a hands-on designer who visited Brookline 17 times during its restoration, said: "Clubs like the Brooklines, Hazeltines, Baltusrols or Congressionals hire you because they want a lot of attention because they're very special places to play to begin with."

Jones terms the Baltusrol work a modernization, while Brookline is a restoration. An entire summer was spent on Brookline, rebuilding a lot of greens and most tees, adding pin positions to most greens, and repositioning many bunkers further down the fairways.

Baltusrol's relatively quick modernization, which should be complete in February, is, for the most part, lengthening holes "to come into the modern strategies and implements of the game ... so the course will play pretty much as Tillinghast envisioned," Jones said.



*It's a major risk for any club to make any change to a course like Baltusrol, so they want to hire someone they know is not going to try to reinvent the wheel.'*

— Rees Jones

Built by Tillinghast in 1922, Baltusrol has not been changed since Rees' father, Robert Trent Jones Sr., prepared it for the 1954 U.S. Open.

"It is a fantastically well built and designed and conceived golf course," Rees Jones said. "It has low-profile, fairly large greens; interesting contours on the greens that are not too pronounced nor real subtle, but there are a lot of subtleties in parts of the greens. They are fairly large targets. We're trying to have the golf course play—on the holes where we can take the tees back—as Tillinghast originally conceived them as playing. They have not been because the implements of the game and conditioning of the players have changed so much."

The changes involve:

- On the 3rd—taking the tees back 20 to 25 yards, "which means players will not necessarily reach the crest of the hill and kick the ball down to the bottom and leave themselves with a short iron."

- On the 5th—moving the tee back to bring the fairway bunkers into play as Tillinghast envisioned them.

- On the 7th—adding a third fairway bunker "because the first two are now a little short."

- On the 8th—adding another bunker on the left side, which will tighten up the landing area.

- On the 9th—moving the tee to the right to have the green play more as a Redan and providing a smaller target. ("You have to hit the correct part of the green," Jones said.)

- On the 10th—adding a pin position to the left to bring the left-side bunker more into

play.

- On the 12th—moving the tee to the right to bring the bunkers on the right more into play

- On the 13th—moving the tee back so players can't hit the ball over the trees and cut the corner on the dogleg right.

- On the 14th—taking the tee back and repositioning the front bunker right up to the green to close off the front pin position.

"When you have a Brookline or Baltusrol which has been around most of the century and have had major championships, changes have to be well thought out and in keeping with the original design," Jones said.

"I'm a strong advocate of Tillinghast. He built the courses he designed. He had his own people build them. He didn't take on an abundance of jobs. He put in the detail. I think his bunkering is the original creative bunkering—the noses, the mounds, the sculpturing. It is very appealing to the eye and very effective playability-wise."

"I worked a lot with club officials," Jones said. "Ultimately this is their golf course and it will be theirs to play until the next Open. Most of these changes won't affect member play much because they are going to play from the forward tees."

Baltusrol's Miller said he thinks his club's 500 proprietary members "are going to be pleased with what they see" when they play it.

"We think Rees certainly has been true to Tillinghast. We didn't want any radical changes. We're proud of what we have here."

What's next on Jones' agenda? Perhaps running a check on the 1994 and 1995 U.S. Open sites would provide a clue.

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## Hurdzan

Continued from page 35

risk facing a suit from the owner," Eldredge says. "What if the green fails for some reason? The owner will come back and ask, 'Why did you go against the USGA?' You'll never win that one in a court of law."

Hurdzan adds: "There has been a liability problem for those who specify the USGA method because it has a measurable performance standard. If you claim a car goes 150 miles per hour and it goes only 145, then someone can sue. If you just say this car is dependable and it goes fast, there is no basis for a suit.

"Isn't it a pity that the fear of being sued should overshadow principles of good turfgrass management and add immensely to the cost of golf course construction without a measurable advantage?"

Yet, he says: "If the purpose of the green is to provide the golfer the truest, most consistent putting surface possible, I offer Oakmont as a benchmark. Its greens are made of clay, as are many U.S. Open courses and thousands and thousands of other famous courses around the world..."

"It must be recognized by all golfers that tournament-speed putting surfaces can stress the grass plant beyond its ability to survive. Keeping super-fast greens on a routine basis is flirting with failure, no matter how the green is built.

"The key to great putting surfaces is a good superintendent and not some root-zone voodoo."

## Golf Resources busy in Japan and California

Representatives for Golf Resources, Inc. have just returned from Tokyo, Japan, where they broke ground on Iwaki Golf Course.

Byron Nelson, design consultant on the project, and his wife Peggy led the contingent to Japan to take part in the four-day groundbreaking ceremonies. This is Nelson's first project outside the United States, while it is the second of four projects Golf Resources is involved with in Japan.

The 27-hole championship course will be completed in 1994 and will be the centerpiece of a full destination resort.

The firm also just recently completed a nine-hole bunker renovation of Cottonwood Valley Country Club at Las Colinas, Calif. GRI was charged with renovating the original nine holes to compliment the nine-hole addition previously completed by Jay Morrish.

GRI Management, Inc., a subsidiary of Golf Resources, Inc., has recently taken over the management duties of Oakmont Country Club in Corinth, Texas. The 18-hole championship course has residential and commercial land available within the development.

## Palmer Golf Management adds agronomist, marketer

ORLANDO, Fla. — Mark F. Miller has been named associate agronomist with Arnold Palmer Golf Management Co. and will be based out of the Orlando office.

Meanwhile, Tracy Kennedy was appointed national marketing coordinator.

Miller has been working on some of APGMC's overseas golf course projects since 1986.

APGMC's Chief Operating Officer, Robert Holzman, said: "Miller's addition allows us to bet-

ter serve our clients who now extend to Singapore, Germany and the United Kingdom."

"Miller's experience will allow us to work on multiple courses, as well as continue to provide the high level of service to our current clients' projects," Holzman added.



Mark Miller

Miller, previously director of agronomics for Desaru, an IMG/Arnold Palmer-managed project in Malaysia, was responsible for construction of its five 18-hole courses and sod farm.

Prior to Desaru, Miller was responsible for the 36-hole golf course, lawn bowling greens and grass tennis courts for Sanctuary Cove Resorts in Australia—also an APGMC-managed project.

Miller graduated with a degree in business administration from Florida State University in 1981.

Kennedy has been working with the Palmer firm for one year as a marketing and communications consultant.

She has more than 10 years of experience in management of corporate communications, marketing, public relations and advertising.



Tracy Kennedy

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# Unique development plan paves way for

By David K. Wells

**B**altimore (Md.) County is preparing to act on its award-winning golf course master plan to develop additional public courses without taxpayer funding.

The plan includes a development schedule of publicly and privately owned sites; innovative management alternatives; and financing and development recommendations that will significantly increase the supply of public courses over the next 10 years.

Using the master plan as a guideline, a county agency is negotiating for a development site for the first of several county-owned facilities. Virginia's Fairfax County is also considering doing a master plan based on Baltimore County's, which has won awards for Baltimore County from the National Association of Counties and the plan's developers from the American Society of Landscape Architects.

## BACKGROUND

Baltimore County is the largest in the Baltimore Metropolitan Statistical Area (MSA). The county's 685,000 people are spread out over 600 square miles.

Yet, just seven of the 319 metropolitan areas surveyed by the National Golf Foundation have fewer public golf holes per capita. Baltimore County has 0.6 18-hole public courses per 100,000 people, compared to a national average of 2.7.

The county's four 18-hole average 65,000 rounds apiece. Playing time stretches 5-1/2 to 6 hours per round. No new public courses have been built in the last 20 years, despite a 65,000-person jump in population.

County leaders are concerned about the shortage for several reasons. First, golf is a popular and growing form of recreation. Second, golf courses attract businesses. Finally, they generate direct revenue in greens fees, cart rentals, practice range charges, equipment purchases and food and beverage sales.

Like many public agencies, Baltimore County's recreation department has been besieged by firms offering to build courses and developers seeking county support for projects.

But, rather than adopt a piecemeal approach to building public courses, in which the real need for golf might not be addressed or all financing options not be considered,

## County studies golf

FAIRFAX COUNTY, Va. — Fairfax County's Board of Supervisors approved a \$58,000 study on building golf courses for the Park Authority.

The study would measure demand for golf courses in the county and recommend development plans for three vacant sites the Park Authority owns. The county already realizes about \$300,000 a year from each of the five 18-hole golf courses it runs.

the Department of Recreation and Parks commissioned a golf course master plan that included a strategy for developing new public courses.

## THE MASTER PLAN

By competitive bids, the county selected a consulting team to prepare the Baltimore County Golf Course Master Plan. The winners were Legg Mason Realty Group Inc. (LMRG) of Baltimore, Daff-McCune-Walker Inc. (DMW) and

The McLoughlin Group (TMG) of Pleasantville, N.Y.

LMRG, a real-estate advisory subsidiary of a major securities firm, served as project manager with responsibility for demographic, economic and investment analysis.

DMW, a Towson, Md.-based land-planning and environmental firm with golf course development expertise, performed environmental and planning evaluations of proposed sites.

TMG, an international golf course consulting agency, evaluated playability, administration and business potential of proposed courses and the financial analysis of development.

The team found an immediate need for 10 public courses averaging more than 55,000 rounds apiece to meet the county's pent-up golf demand. The team used current and future population estimates, demographic information and par-

ticipation rates to determine the need. It also made projections for the years 1995 and 2000.

The team evaluated potential sites to determine environmental constraints and playability. Sensitive environmental issues in Maryland include wetland protection, sediment and erosion control, water quality, water supply, pesticide and nutrient management, agricultural preservation, wildlife habitat, air quality, noise, historical and ar-



# county courses without public's money

chaeological preservation.

After evaluating 14 sites, the team recommended a schedule for the county to develop high-potential sites, sites without serious environmental constraints and sites with good playability characteristics such as proper size, ease of access, expansion potential and aesthetic character. The schedule also includes driving ranges and teaching academies to meet all golfers' needs.

The recommendation calls for seven new courses during the 1990s — two championship, three standard and two short facilities. Early development focused on publicly owned land to reduce acquisition costs.

To finance construction without taxpayer dollars, the team recommended creating a non-profit Baltimore County Golf Corporation that would take over the county's three existing courses.

The county had been receiving revenue only from greens fees and a small cart rental percentage as specified in contracts with the professionals operating the courses. By taking control of all profit centers (greens and cart fees, practice facilities, pro shops and food/beverage concessions) and managing them in a professional manner, the team estimated revenues would jump 2-1/2 times without raising greens fees.

The corporation could use the extra money to develop new facilities without taxpayer funding, an attractive alternative considering the county's budget woes.

## NEW ALTERNATIVE

With rising concern over municipal deficits and budget constraints, new ways must be developed to build public courses without tax dollars. A county golf corporation uses existing municipal golfers to

fund new developments. County participation ensures that new courses address resident needs and are managed in a professional manner.

The Baltimore County Golf Corporation is a quasi-governmental 501 C3 corporation working outside civil servant guidelines. It functions as a private business solely for the purpose of operating, managing and directing public golf development for the county.

Revenues from new and existing courses are returned to the corporation for future development. The corporation could develop seven new courses over the next 10 years relying solely on golf revenues and limited borrowing, according to projections.

The corporation could participate in public/private joint ventures to speed development. It could solicit proposals from qualified joint venture partners, as do most municipalities. But it should be better equipped than most local governments to negotiate effective development and management agreements because of the experience gained in developing and operating its own facilities.

The plan is under review by the Baltimore County Department of Recreation and Parks and the Baltimore County Executive's office. They are considering legal and financial action needed for implementation.

*David Wells is a research associate with Legg Mason Realty Group Inc.*

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## Financing forums planned East and West

SAN DIEGO, Calif. — A national forum entitled "Financing Golf Course Developments" is slated to take place here March 18-19, and in Washington, D.C., April 9-10.

According to John Ecklein, president of Financial Seminars Inc., "It is a well-known fact that there is a demand for new golf course communities. However, all the lip service in the world will not make it happen until we find ways to finance these credit-worthy developments." The conference is designed to bring leading financiers of golf developments together with some of the nation's leading developers, owners and operators to explore financing and investment options.

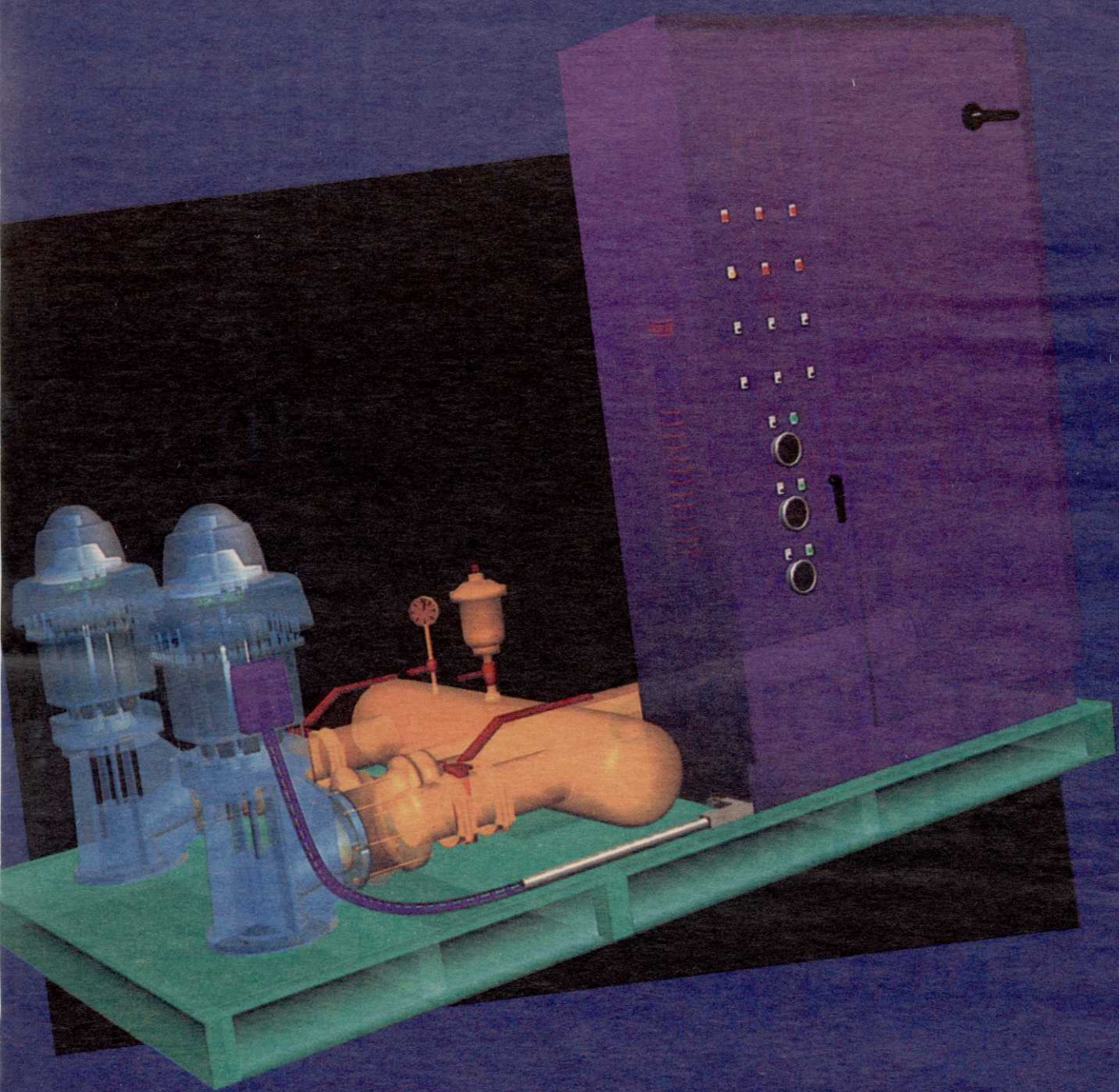
"The good news is that there appears to be some easing of credit," said Ecklein. "We are by no means out of the woods, but the fact that we have over 20 financial experts willing to strike up a dialogue is an important step in the right direction".

In addition, attendees will be afforded the opportunity to hear about the investment opportunities in Mexico.

For a detailed brochure on the conference call Financial Seminars Inc. at 800-285-2332.

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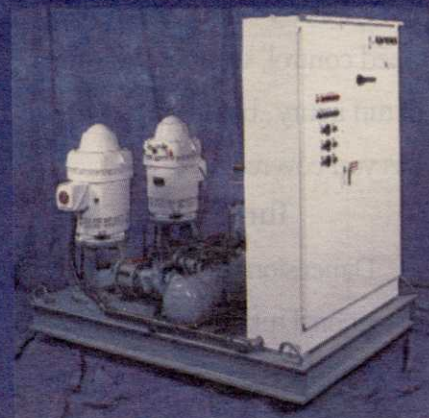
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# GOLF COURSE NEWS

A Guide to the  
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February 10-17



# GCSAA to elect new officers, led by Bill Roberts

NEW ORLEANS — Members of the Golf Course Superintendents Association of America will elect a new slate of officers — led by presidential nominee William R. Roberts — at the organization's annual meeting here Feb. 14.

Roberts, superintendent at Lochmoor Club in Grosse Pointe Woods, Mich., is currently vice president under President Stephen Cadenelli of Metedeconk National Golf Club in Jackson, N.J.

Nominees for GCSAA vice president are Directors Joseph G. Baidy of Acacia Country Club in Lyndhurst, Ohio, and Randy S. Nichols of Cherokee Town & Country Club in Dunwoody, Ga. Nichols is currently secretary/treasurer.

Five nominees are vying for three spots as directors, who will be elected for two-year terms. The nominees are Joseph M. Hahn of

Oak Hill Country Club in Rochester, N.Y.; Paul S. McGinnis of Union Hills Country Club in Phoenix, Ariz.; C. Wayne Perkins of Colonial Country Club in Madison, Miss.; Bruce R. Williams of Bob O'Link Country Club in Highland Park, Ill.; and Randall P. Zidik of Rolling Hills Country Club in McMurray, Pa.

Cadenelli will continue to serve on the

board of directors for one year as immediate past president.

Two current board members — Gary T. Grigg of Genoa Lakes Golf Club in Genoa, Nev., and Charles T. Passio of Hyannisport (Mass.) Club, have one year remaining on their terms.

All candidates are Certified Golf Course Superintendents — a designation earned from the GCSAA through education and experience.

## Presidential nominee—Roberts

**Name:** William R. Roberts

**Age:** 39

**Course:** Lochmoor Club, Grosse Pointe Woods, Mich. (since 1988)

**Former head superintendent at:** Sentryworld, Stevens Point, Wis.; El Paso CC; Knollwood Club, Lake Forest, Ill.; Stevens Point CC

**Years GCSAA Member:** 16

**GCSAA positions held:** Vice president (1991); secretary/treasurer (1990); member board of directors (since 1986); member of planning and finance, government relations, public relations, standards, scholarship and research committees; member of Golden Tee Club

**Other associations:** Past president Wisconsin GCSA; member Michigan & Border Cities GCSA; member Western Michigan GCSA; member of Mid-Michigan Turfgrass Foundation, USGA Environmental Research Committee, and O.J. Noer Research Committee.

**Education:** Certificate in turfgrass management from Pennsylvania State University

**Family:** Wife, Patricia; children, Jennifer, 12, Megan, 10, Erin 8

**Goal:** Robert refused to comment to *Golf Course News*.



William Roberts

## Vice presidential contenders — Baidy and Nichols

**Name:** Joseph Baidy

**Age:** 51

**Home course:** Acacia CC, Lyndhurst, Ohio

**Former head superintendent at:** Fox Chapel GC, Pittsburgh; Oak Hill CC, Rochester, N.Y.; Manor CC, Rockville, Md.

**Years GCSAA member:** 26

**GCSAA posts held:** Chairman of publication/awards, public relations, conference and show, tournament, and scholarship and research committees.

**Other associations:** President Greater Pittsburgh, GCSA; member Northern Ohio GCSA, Ohio Turfgrass Association, American Society of Agronomy, USGA Green Section Committee, Pennsylvania Turfgrass Council, Allied GCSA of Pennsylvania and Associated Green Industries of Northern Ohio.

**Education:** Bachelor's degree in agronomy, Pennsylvania State University.

**Family:** Wife, Judy; children, Michael, 25, Michelle, 24.

**Goal:** "I've been on the board for four years and have extensive experience on the local, state and regional association levels. I'm very concerned about the present and future condition of the golf course industry and feel my long-time involvement in the business can help my peers."



Joseph Baidy

**Name:** Randy Nichols

**Age:** 44

**Home course:** Cherokee Town & CC, Dunwoody, Ga.

**Former head superintendent at:** Construction superintendent, Chatham Land & Development.

**Years GCSAA member:** 16

**GCSAA posts held:** Board member since 1987; current secretary/treasurer; chairman of conference and show, tournament, membership and government relations committees.

**Other associations:** Past president Georgia GCSA; vice president Georgia Turfgrass Association; member Georgia State Golf Association Advisory Committee, Georgia Golf Hall of Fame Nominating Committee and USGA Green Section Committee.

**Education:** Bachelor's degree in turfgrass management, Mississippi State University.

**Family:** Wife, Jan; children, Gina, 20, Greg, 19.

**Goal:** Chose not to respond



Randy Nichols

## Board hopefuls — Joseph Hahn, Paul McGinnis, C. Wayne Perkins, Bruce Williams, Randall Zidik

**Name:** Joseph Hahn

**Age:** 51

**Home course:** Oak Hill Country Club, Fairport, N.Y.

**Former head superintendent at:** Locust Hill CC, Pittsford, N.Y.; Braemar CC, Spencerport, N.Y.

**Years GCSAA member:** 28

**GCSAA posts held:** Member of membership, bylaw, organizational study, regionalization and government relations committees.

**Other associations:** Member of New York State Turfgrass Association and Finger Lakes Association of Golf Course Superintendents.

**Education:** Graduate of DeSales High School, Lockport, N.Y.; completed many GCSAA seminars and holds CGCS designation

**Family:** Wife, Elaine; children, Mary, 27, Tim, 26, Paula, 25, Diana, 23, Heather, 22, Andrew 21, Shannon, 17.

**Goal:** "Our association has programs in place that make our members the best educated and qualified superintendents in the world today. I would like to do whatever I can to help that continue."



J. Hahn

**Name:** Paul McGinnis

**Age:** 40

**Home course:** Union Hills CC, Sun City, Ariz.

**Former head superintendent at:** Palmbrook CC, Sun City, Ariz.; The Wigwam CC, West Course, Litchfield Park, Ariz.

**Years GCSAA member:** 14

**GCSAA posts held:** Member of conference and show, tournament, nominating and standards committees.

**Other associations:** Past president of Cactus & Pine GCSA; member of U.S. Golf Association Green Section Committee.

**Education:** Bachelor's degree in agricultural economics from Arizona State University.

**Family:** Wife, Kendra; Marci, 18, Kari, 16, Michelle, 14, Magen 10. **Goal:** "We (GCSAA) need to be more involved in the educational process on the chapter level to keep superintendents informed, especially on environmental issues. Every member needs to be up to speed on environmental, chemical and pesticide laws. The association needs to take more responsibility in that regard."



P. McGinnis

**Name:** C. Wayne Perkins

**Age:** 40

**Home course:** Colonial Country Club, Jackson, Miss.

**Former head superintendent at:** Decatur Country Club, Decatur, Ala.

**Years GCSAA member:** 15

**GCSAA posts held:** None

**Other associations:** President, Louisiana/Mississippi Golf Course Superintendents Association; past president, Mississippi Turfgrass Association; past president, Southern Turfgrass Association.

**Education:** Bachelor's degree in mathematics, William Carey College; graduate work in turfgrass management at Mississippi State University.

**Family:** Wife, Sheila; children, Marcee, 12 and Jason, 8.

**Goal:** "We're not an affluent club. Our members are middle-off-the-road types. I'd like to bring that common-man approach to the board. My past experience qualifies me to serve on the board and I'm definitely willing to work hard."



C. W. Perkins

**Name:** Bruce Williams

**Age:** 42

**Home course:** Bob O'Link GC, Highland Park, Ill.

**Former head superintendent at:** Bob O'Link since 1979

**Years GCSAA member:** 15

**GCSAA posts held:** Board member since 1991; chairman certification appeals committee. Member of seminar resource, conference and planning, CEU guidelines, certification, education, public relations, scholarship and research committees; instructor GCSAA seminar on assistant superintendent functions and responsibilities.

**Other associations:** Past president of Chicagoland Association of GCS and Midwest Assoc. of GCS; member Chicago District Golf Association Turfgrass Research Advisory Committee and Chicago Botanical Garden Advisory Committee.

**Education:** Bachelor's degree in English and speech, Baldwin-Wallace College, Berea, Ohio; graduate of turfgrass management program, Michigan State Univ.

**Family:** Wife, Roxane; children, Blake, 10, Claire, 6, David, 3.

**Goal:** "To continue in a leadership role of our association in order to provide membership with the collective information source to face the needs of golf course management today and in the future."



B. Williams

**Name:** Randall Zidik

**Age:** 38

**Home course:** Rolling Hills CC, McMurray, Pa.

**Former head superintendent at:** Uniontown CC, Uniontown, Pa.; Hidden Valley CC, Pittsburgh.

**Years GCSAA member:** 15

**GCSAA posts held:** Board member since 1989; past chairman of education and certification committees; vice chairman of publications and scholarship committees; liaison for government relations;

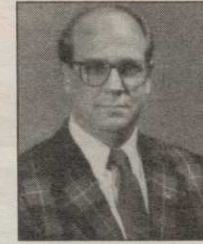
member of organizational study committee.

**Other associations:** Board member of Greater Pittsburgh GCSA and Pennsylvania Turfgrass Council.

**Education:** Associate's degree in turfgrass management from Pennsylvania State University.

**Family:** Wife, Diane; children, Zachary, 15, Nicholas, 13, Matthew, 10.

**Goal:** "My last three years on the board of directors has been an exciting and challenging time. I would like the opportunity to continue helping our programs work and contributing more in every way I can."



R. Zidik

## Monday to Thursday, Feb. 10-14

### MONDAY AND TUESDAY FEB. 10 AND 11

GCSAA Golf Championship in Ponte Vedra Beach, Fla., at TPC at Sawgrass Stadium Course; TPC at Sawgrass Valley Course; Oak Bridge Club at Sawgrass; and Windsor Parke Golf Club. The Marriott at Sawgrass Resort is the headquarters hotel.  
8 A.M. - 5 P.M.

- (Asterisk denotes Division I seminars)
- Basic principles of turfgrass management (1.4 Continuing Education Units)\*
  - Basic turfgrass botany & physiology (1.4)\*
  - Environmental considerations in golf course management (1.4)\*
  - Golf course construction techniques & management (1.4)
  - Golf course restoration, renovation & construction projects (1.4)
  - Insect pests on golf course trees & shrubs (1.4)
  - Introduction to integrated pest management (1.4)

- Introduction to surveying (1.4)\*
- Irrigation I: System component technology (1.4)\*
- Landscape design & plant materials (1.4)\*
- Managerial productivity (1.4)
- Plant nutrition & fertilizers (1.4)\*
- Protection of water resources (1.4)
- Public relations & public speaking (1.4)
- Turfgrass identification & utilization (1.4)
- Weed control (1.4)\*

### TUESDAY FEB. 11

8 A.M. - 5 P.M.  
Two-day seminars continue  
Safe pesticide management (.7 Continuing Education Units)

### WEDNESDAY FEB. 12

8 A.M. - 5 P.M.  
• Budgeting & forecasting (.7 Continuing Education Units)\*

- Calculations & practical mathematics for use in golf course management (.7)
- Effective business writing (.7)
- Financial management (.7)
- Implementing strategies & plans for turfgrass environmental systems (.7)
- International seminar (.7)
- Maximizing job satisfaction (.7)
- Preparing your golf course for a major tournament (.7)
- Scouting, sampling & monitoring golf course pests (.7)
- USGA golf course rating system (.7)
- Water quality & irrigation scheduling techniques (.7)
- Wildlife management & habitat conservation (.7)

### WEDNESDAY AND THURSDAY FEB. 12 AND 13

8 A.M. - 5 P.M.  
• The assistant superintendent: Managing people & jobs (1.4 Continuing Education Units)\*

- ing Education Units)\*
- Business communications & assertiveness techniques (1.4)
- Disease identification & control (1.4)\*
- Golf course design principles (1.4)
- Golf course restoration, renovation & construction projects (1.4)
- Introduction to soil science (1.4)\*
- Irrigation II: system design, operations & management (1.4)\*
- Turfgrass insects: basic & advanced principles (1.4)\*

### THURSDAY FEB. 13

8 A.M. - 5 P.M.  
Two-day seminars continue  
• Cardiopulmonary resuscitation\*  
• Certification exam study guidelines  
• Developing your hazard communication program (.7)  
• Golf course safety, security & risk management (.7)  
• International seminar (.7)  
• Computers & turfgrass manage-

- ment (.7)\*
- Irrigation efficiency (.7)
- Maximizing turfgrass disease control (.7)
- Negotiating (.7)
- Options & their application in pest management (.7)
- Personnel functions of the golf course superintendent (.7)
- Practical tree management (.7)
- Turfgrass stress management (.7)
- Underground storage tank selection & installation (.7)
- USGA intermediate rules of golf (.7)\*
- Von Hagge on golf course design (.7)
- 11 A.M. - 1 P.M.  
• Past Presidents' Reception (By invitation)
- 11 A.M. - 5 P.M.  
• On-site Registration Open  
5:15 P.M. - 8:30 P.M.  
• Opening Session and Reception  
Keynote speaker is Terry Bradshaw, a four-time All-Pro NFL quarterback.

## Friday and Saturday, Feb. 15-16

### FRIDAY FEB. 14

7:30 A.M. - 5 P.M.  
• On-Site Registration Open  
8 A.M. - 10 A.M.  
• Concurrent Educational Sessions (20 minutes per topic):  
Golf Course Management Techniques: Part 1 Chairperson: Scott Woodhead, CGCS  
8:00- Dwarf Turfgrasses for Golf Courses with Dr. William Meyer of Turf-Seed, Inc.  
8:20- Penncross: Why Change?, with Dr. M.C. Engelke of Texas A&M University.  
8:40- Bentgrass Cultivar Update with Dr. Richard Cooper of University of Massachusetts.  
9:00- Seed Priming and Pregermination - Is it worth the Trouble?, with Dr. Douglas Brede of Jacklin Seeds.  
9:20- Maximizing the Habitat Potential of the Golf Course - For the Birds with Nancy Sadlon, USGA Environmental Specialist.  
Golf Course Landscaping Chairperson: Steven Malikowski, CGCS.  
8:00- Naturalistic Landscaping on the Golf Course with Philip Wade Thomas of Indian Hills Country Club.  
8:20- Integrated Landscape Management with Mark Timmons of Mark Timmons & Associates.  
8:40- Arborist on the Golf Course - Can You Afford To Be Without One?, with Danny Quast, CGCS, of Medinah (Ill.) Country Club.  
9:00- Wise Decisions Concerning Trees on the Golf Course with Kenneth Knox of The Tree Doctor, Inc.  
9:20- The Biggest Problem On Golf Courses with Stanley Zontek of USGA Mid-Atlantic Region.  
Public Golf Operations Chairperson: Dennis Lyon, CGCS.  
8:00- Trends in Public Golf: A De-

mand and Supply Perspective with Richard Norton of National Golf Foundation.  
8:20- Planning and Construction of a Public Golf Course with Denis Griffiths of Denis Griffiths & Associates.  
8:40- Automated Tee Times and Information System with Sanford G. Queen, CGCS, Overland Park (Kan.) Golf Course.  
9:00- Addressing the Public's Pesticide Perception with Dr. R.L. Brandenburg of North Carolina State University.  
9:20- Golf and the Americans with Disabilities Act: The Impact on Public Courses with Tom Houston Sr., entrepreneur/inventor/golfer.

10 A.M. - NOON  
• Environmental General Session  
Noon - 1 P.M.  
Speakers are Jay Feldman, national coordinator of the National Coalition Against the Misuse of Pesticides; Victor Kimm, deputy assistant administrator for pesticides and toxic substances for the Environmental Protection Agency; and John Stossel, ABC-TV's "20/20" news analyst and environmental reporter.  
• Certification Luncheon  
1 P.M. - 4:30 P.M.  
• Concurrent Educational Sessions  
Golf Course Management Techniques: Part II  
Chairperson: Kal Horvath, CGCS.  
1:00- The Evolution of Golf Course Maintenance in the United States with Dr. William Dest of University of Connecticut.  
1:20- Adapting Modern Techniques and Standards to Courses from Another Time with William Spence of The Country Club, Franklin, Mass.  
1:40- Preparing for the 1991 Ryder Cup with George Fry Jr. of Kiawah Island Golf Resort.

2:00- A Review of Irrigation Water Quality with Dr. M. Ali Harivandi of University of California.  
2:20- A Mesh Element System for Stabilizing Root Zones with Dr. James B. Beard of Texas A&M University.  
2:40- BREAK  
2:50- Update on Cultivation Options with Dr. Paul Rieke of Michigan State University.  
3:10- Practical Fertilization of Green Section Greens with James Latham of USGA Great Lakes Region.  
3:30- Effects of Fungicides on Non-Target Organisms in Bermudagrass Greens with Dr. T.E. Freeman of University of Florida.  
3:50- Monitors and Sprayer Control Systems in Modern Turf Management with John H. Gallup of Micro-Trak Systems, Inc.  
4:10- Concrete Pesticide Containment Pads for Golf Courses with Ronald T. Noyes of Oklahoma State University.  
Intelligent Plant Management  
Chairperson: Tim Hiers  
1:00- Golf Course Specific Pest Management Programming with Dr. Norman Hummel, Jr. of Cornell University.  
1:20- Biological Control of Annual Bluegrass with Dr. J.M. Vargas of Michigan State University.  
1:40- An Integrated Approach to Summer Patch Control in Turfgrass with Dr. Bruce Clarke of Rutgers University - Cook College.  
2:00- IPM: Training Is the Key with William Start of Turf Renovations, Inc.  
2:20- IPM for the 1990s: A Practical Turfgrass Approach with Bruce Cadenelli of Caves Valley Golf Course, Finksburg, Md.  
2:40- BREAK  
2:50- Organic Fertilizers - Old Ideas, New Technology with Dr. Charles Peacock of North Carolina State Univer-

sity..  
3:10- Water Requirements of Cool and Warm Season Turfgrasses with Dr. Victor Gibeault of University of California.  
3:30- Biostimulators: What's Their Place in the Overall Turf Management Program?, with Dr. Michael Goatley of Mississippi State University.  
3:50- Getting to the Roots of Turf Management with Dr. G.L. Horst of University of Nebraska.  
4:10- Maintaining Bentgrass Under Stress with Michael Hamilton, CGCS, of Lanier Golf Course, Cumming, Ga.  
**The Business Side of Golf**  
1:00- Managing the Employee of the 1990's with Dr. Kenneth J. Lacho of University of New Orleans.  
1:20- Developing a Personal Pension Plan with Robert Ochs of GCSAA general counsel.  
1:40- Why the Grass Won't Grow with Mike Carroll, CCM, of Blue Hills Country Club, Kansas City, Mo.  
2:00- What a Search Firm Can Do for You with Gerald L. Faubel, CGCS, Saginaw (Mich.) Country Club.  
2:20- Professionalism: A Must in Superintendent/Golfer Relations with Wallace Menn of Texas A&M University.  
2:40- BREAK  
2:50- Identifying and Managing Environmental Law Risks with James P. O'Hara, with Shughart, Thomson and Kilroy, P.C.  
3:10- Practical Environmental Responsibility with James F. Moore of USGA Mid-Continent Region.  
3:30- Working with Consultants with Robert Fisk of The Landings Club, Savannah, Ga.  
3:50- CGCM: Impacting the Golf Course Management Industry Through Research with Robert Shively, GCSAA director of marketing.

4:10- Harnessing TGIF: Turf's Guiding Information Force with Peter Cookingham of Michigan State University.  
4:45 P.M. - 6 P.M.  
• Members' Briefing/Meet the Candidates  
**SATURDAY  
FEB. 15**  
7:30 A.M. - 5 P.M.  
• On-Site Registration Open  
9 A.M. - 5 P.M.  
• Ribbon Cutting Ceremony  
Official Opening of Trade Show  
9 A.M. - 3:30 P.M.  
• Certification Examination  
10:30 A.M. - 12 P.M.  
• International Forum and Reception  
NOON - 1 P.M.  
• Voting Delegates' Luncheon  
1 P.M. - 4:30 P.M.  
• Golf Course Builders Association of America Session: Building in Today's Environment  
1 P.M. - Conclusion  
• Zoysiagrass Forum, including four presentations:  
— Davis Stone, superintendent at The Honors Course, will discuss how to keep zoysiagrass out of Bermudagrass.  
— Dr. M.C. Engelke of Texas A&M University will review the latest developments in zoysiagrass breeding.  
— Dr. Ned Tisserat of Kansas State University will speak on the pathogen suspected of causing zoysia patch.  
— Richard Stuntz, CGCS, vice president of golf course facilities at Alvamar, Inc., will address the culture of zoysiagrass fairways.  
7 P.M.  
• Golf Course Builders Association of America annual banquet, featuring presentation of the Donald Rossi Award to Robert Trent Jones Sr.

## Sunday and Monday, Feb. 16-17

### SUNDAY FEB. 16

7 A.M. - 8:30 A.M.  
• Prayer Breakfast at the New Orleans Hilton, with former NFL All-Pro wide receiver Danny Abramowicz  
7:30 A.M. - 5 P.M.  
• On-site Registration Open  
9 A.M. - 5 P.M.  
• Trade Show Open  
9 A.M. - 11:30 A.M.  
• Major Speaker Session - Wendy Stebbins  
A psychotherapist, Stebbins will talk on dealing with difficult people and managing stress and time. She is founder of the Stebbins Institute near Chicago, which is dedicated to clinical study of achieving human potential through balance, knowledge and growth in all areas of life.  
10:30 A.M. - 12 P.M.  
• Voting Delegate Check-in  
Members' briefing and Meet the Candidates session, and the annual meeting

1 P.M. - 4:30 P.M.  
• American Society of Golf Course Architects  
The Original Design ... How Important Is It?  
— ASGCA President Tom Clark of Kensington, Md., and Robert Muir Graves of Walnut Creek, Calif., will speak on What Can, and Does, Happen  
— Jay Morrish will speak on The Resort/Residential Course  
— Rees Jones of Montclair, N.J., will talk on U.S. Open Caliber Remodeling  
— Ed Seay of Ponte Vedra Beach, Fla., will address What's Happening Internationally  
1 P.M. - 4 P.M.  
• Green Chairmen Session  
Chairperson Charles T. Passios, CGCS of Hyannisport (Mass.) Club  
Topics are:  
— How Important Is Your Superintendent's Education to Your Club, by Robert Graunke, CGCS, of Eagle Ridge Golf Course  
— Deciding When a Course Needs

Restoration, by Robert Lohmann of Crystal Lake, Ill  
— It's Time We Put the Green Back in Green Speed, by David Oatis of the USGA Northeastern Region  
— Environmental Issues, Liability, Hiring and Firing and Workers' Compensation, by Robert Ochs, GCSAA legal counsel  
— Communication ... Communication ... Communication, by Arthur Weber of Rockville Centre, N.Y.  
— A Pension Plan for the Golf Club Staff, by Stephen R. Paige of Topeka, Kan.  
1:30 P.M. - 3 P.M.  
• Voting Delegate Check-In  
3 P.M. - 4:30 P.M.  
• Golden /Platinum Tee Club Reception  
7 P.M. - 8:30 P.M.  
• President's Reception

### MONDAY, FEBRUARY 17

7:30 A.M. - 5 P.M.  
• On-site Registration Open

8 A.M. - 9 A.M.  
• All Exhibitors' Breakfast Meeting  
8 A.M. - 12 P.M.  
• USGA Green Section Program  
Chairperson: James Snow, national director of the U.S. Golf Association Green Section  
Topics are:  
— Welcoming remarks by Raymond B. Anderson, chairman, USGA Green Section Committee  
— The Best Turf Tips from the Green Section Staff  
— USGA/GCSAA Research Results You Can Use, by Dr. Michael Kenna, director of Green Section Research  
— Turf Tips - More of the Best  
— Course Maintenance with Wildlife in Mind, by David C. Stone, superintendent at The Honors Course  
Turf Tips - Even More of the Best  
— Issues in Golf in the 1990s, by Stuart F. Bloch, vice president of the USGA  
— Turf Tips - The Best Keep Coming

— News and View on USGA Green Specifications, by Dr. Norman Hummel, associate professor at Cornell University  
— Standards and Practices for a Fragile Environment, by Stephen G. Cadenelli, GCSAA president  
— Turf Tips - Last But Not Least of the Best  
8 A.M. - Conclusion  
• Certification Re-Exam  
9 A.M. - 1 P.M.  
• Trade Show Open  
9 A.M. - 11 P.M.  
• Voting Delegate Check-In  
1 P.M. - Conclusion  
• Annual Meeting and Election  
6 P.M. - 7 P.M.  
• Banquet Reception  
7 P.M. - 11 P.M.  
• Annual Banquet and Show  
A performance by Kenny Rogers will cap the evening, which begins with a formal dinner and annual awards ceremony. Banquet tickets are needed for all family members except infants who do not require a seat.

## Sawgrass' famous 17th faces supers

A forlorn figure fishes in vain for his ball short of the green on the 17th hole of the TPC Sawgrass Stadium Course. This scene will be repeated frequently during the annual Golf Course Superintendents Association of America Golf Championship, Feb. 10-11.

The world-famous 140-yard hole boasts grim watery grave statistics. Termed scenic, wondrous, exciting and frightening, the hole claims 75,000 balls annually during 36,000 rounds, according to superintendent Fred Klauk.

The local rule is two errant tee shots per player, then a move up to the forward tee for a drop 90 yards from the green. If that shot fails, mark an X on the scorecard.

The second tourney site, the par-72 Valley Course, is "more moderate" and also supervised by Klauk.



Also designed by Pete Dye, the Valley Course opened in 1987. Tour pro Jerry Pate assisted in construction, as did PGA architect Bobby Weed.

Sawgrass Country Club, designed by Ed Seay, first opened for play in 1974 and hosted the Tour-

namment Players Championship from 1977 to 1981.

Randal Hooper is the superintendent, following in his father's footsteps.

Jack "Eddie" Snipes is superintendent at the fourth tourney course, Oak Bridge Club at

Sawgrass.

The championship flight will be 36 holes of stroke play. The champion must be an amateur.

Other flights will use the Stapleford point system. Gross and net points are figured by use of a point quota.

## PGA's Beman thanks and welcomes superintendents

From Deane Beman, PGA Tour commissioner:

"The PGA Tour from its Sawgrass headquarters has a special welcome for the United States Golf Course Superintendents Association's tournament field.

"We'd like to take this opportunity to salute the superintendents for the prominent role they've played in fine-tuning our regular Tour, Senior PGA Tour and Ben Hogan Tour course sites from Maine to California.

"Their unstinting dedication to their craft is much responsible for the annual success of our showcase product and continued growth of the game we treasure.

"The PGA Tour is particularly proud that its members in the recent *Golf Course News* poll voted TPC Sawgrass 1991's Best Conditioned Tournament Resort Course.

"May you all enjoy your stay and your championship, and may you all give par a battle."

## Certification seminar tests planned

A seminar of study guidelines for earning Certified Golf Course Superintendent status will be held at the international conference, Feb. 13, in the New Orleans Convention Center.

Offered by the Golf Course Superintendents Association of America, the seminar familiarizes participants with the latest study materials, sample questions and helpful hints on how to prepare for the certification examination.

The examination itself is also being offered, to pre-registrants, on Feb. 15.

To take the test, superintendents must be approved applicants in the certification process and must have submitted a written statement of intent no later than Jan. 1.

A luncheon for certified superintendents is being held Feb. 14. Advanced registration is required.

Meanwhile, people attending the educational seminars Monday through Thursday, Feb. 10-13, may sign up for continuing educational units in the conference registration area of the convention center.

## Audio cassettes of sessions available

Audio cassettes of the concurrent educational sessions and allied association sessions will be available on-site at the international conference and show in New Orleans.

Cassettes may be bought at the Audio Archives, booth, located in the convention center's registration area.

Meanwhile, a synopsis of the concurrent sessions will be published in Conference Proceedings, a softbound volume available for \$7 from the Golf Course Superintendents Association of America.

## Marketing research services offered by CGCM

The Center for Golf Course Management will offer a variety of marketing research services and publications at the 63rd International Golf Course Conference and Show, Feb. 10-17, in New Orleans.

CGCM is a subsidiary of the Golf Course Superintendents Association of America, which sponsors the annual event.

The "Business Side of Golf" educational session planned for Friday afternoon, Feb. 14, will include a presentation by Robert Shively, GCSAA director of marketing. Shively will explain the goals and usefulness of marketing research, drawing examples from CGCM's marketing research reports based on nationwide surveys of golf course superintendents.

All of CGCM's 1990 and 1991 marketing

research reports will for sale during the trade show, Feb. 15-17.

The 1991 series of reports includes three detailed reports on specific market segments: pesticides and fertilizers, golf cars and turf utility vehicles, and mower and maintenance equipment.

The 1991 Buying Habits of Golf Course Superintendents Report summarizes information from the three tailored reports and adds a section on industry trends in the areas of water usage, chemical packaging, wetting agents and single-task vs. multi-task equipment.

The 1991 Golf Course Superintendents Report, which is available only to practicing golf course superintendents, includes data on maintenance budgets, capital ex-

penditures, equipment inventories, product ratings, and so on.

Available reports also include a broad industry overview in the 1990 Buying Habits of Golf Course Superintendents, plus the 1990 edition of the Golf Course Superintendents Report.

Also during the trade show, CGCM staff will conduct conferences with potential clients for proprietary research services. CGCM works with golf course management industry clients to collect, analyze and report proprietary data.

CGCM is scheduling an invitation-only luncheon for CGCM clients at New Orleans. Shively will provide a brief overview of the buying habits of golf course superintendents during the luncheon.

## Florida Green, other chapter publications to be honored

Perennially honored *The Florida Green*, published by the Florida Golf Course Superintendents Association, is the best superintendents newsletter in the country larger than 16 pages, according to the Golf Course Superintendents Association of America.

The GCSAA will honor *The Florida Green* and five other newsletters at the conference and show in New Orleans.

The Florida paper, edited by Joel D. Jackson, will be presented Best Overall Award in the category for newsletters averaging 16 pages or more per issue.

Best Overall for smaller sized newsletters will be presented to Metropolitan GCSA's *Tee-To-Green*, edited by Timothy Moore.

*Golden State Fairways*, the Cali-

fornia GCSA's newsletter edited by Helen M. Stone, won Best Cover.

The Texas Turfgrass Association's *Texas Turfgrass*, edited by Richard Doble, won for est Flag.

Best Original Editorial Content Award will go to *The Grass Roots*, published by the Wisconsin GCSA and edited by Monroe S. Miller.

*Through The Green*, by the Georgia GCSA and edited by H.E. Frenette, will get the award for Best Visual Format.

Twenty-five publications were eligible for the annual contest, which was judged by Jerry Ducker of Hallbrook Farms Country Club, Nancy Harper of the advertising and communications firm Harper & Associates, and Lois Wolfe of the National Federation of Press Women.

## Former All-Pro Abramowicz prayer speaker

Former National Football League wide receiver Danny Abramowicz, a 17th-round draft pick who rose to All-Pro status, will speak at the annual Prayer Breakfast at the 63rd International Golf Course Conference and Show.

Open to all faiths, the breakfast will be held at the New Orleans Hilton. Coffee and Danish will be served at 7 a.m. and the program will begin at 7:30 a.m.

Abramowicz, an Xavier University graduate who starred for the New Orleans Saints, is head football coach at New Orleans' Jesuit High School.

Active in the Fellowship of Christian Athletes, he works with a drug-alcohol abuse prevention program and the Special Olympics.

He also built a playground, Independence Isle, for physically challenged youths.

# GCSAA honoring some of industry's most distinguished

Six-time PGA Player of the Year Tom Watson will be one of several people honored during the 63rd GCSAA International Golf Course Conference and Show on Feb. 17 in New Orleans.

Tom Watson will be presented the Old Tom Morris Award, the highest honor of the Golf Course Superintendents Association of America., at the closing banquet.

Meanwhile, at ceremonies on Feb. 13, George M. Kozelnicky of Athens, Ga., and C.E. "Tuck" Tate of Sarasota, Fla., will receive the organization's 1992 Distinguished Service Awards and Ken Flisek, of The Club at Nevillewood near Pittsburgh, will be given the 1992 Leo Feser Editorial Award.

GCSAA established the Old Tom Morris Award in 1982 to recognize individuals who

have made outstanding lifetime contributions to the game. The award is named in memory of Old Tom Morris (1821-1908), greenkeeper and golf professional at the Royal and Ancient Golf Club of St. Andrews, Scotland.

In his nomination for the award, Watson was cited for his charitable and community efforts. The Children's Mercy Hospital Golf Classic is an 18-hole exhibition team match hosted by Watson which raises money for the local Kansas City (Mo.) hospital. Every year since 1980,

Watson has brought in golf's finest players for a one-day golf match. The Golf Classic has raised more than \$3.5 million for Children's Mercy Hospital.

Watson's "Clubs For Kids" gives boys and girls in the Greater Kansas City area an op-

portunity to learn about golf that they ordinarily would not have. The biennial event was first held in 1981. The Distinguished Service Award cites Kozelnicky and Tate for long-time service to the industry.

Kozelnicky has served 25 years as executive secretary of the Georgia GCSA. He initiated the chapter's newsletter and until two years ago was editor, staff writer, layout designer and circulation manager.

While professor of plant pathology at the University of Georgia, Kozelnicky researched spring dead spot. After retirement, Kozelnicky handled chapter business from his home until the association moved into a new office in 1987. He was succeeded in 1989 by Karen White.

Tate, 81, owner/operator of the Frankfort

(Mich.) Golf Club until retirement, in 1986 received the Distinguished Service Award from the Michigan Turfgrass Foundation of which he is a past president.

Tate was on the board of directors during acquisition and construction of Hancock Turfgrass Research Center at Michigan State University. He endowed a scholarship fund, which now exceeds \$100,000, for MSU turf students.

The Feser Award is presented for best article written by a GCSAA-member superintendent and published in *Golf Course Management*.

Flisek's prize-winning article, "Using Proven Basic Principles To Improve Your Professional Image," appeared in the February 1991 issue.

## Watson latest of Old Tom Morris winners



Past winners of the GCSAA's Old Tom Morris Award are:

- 1992 — Tom Watson
- 1991 — William Campbell
- 1990 — Sherwood Moore
- 1989 — Chi Chi Rodriguez
- 1988 — Gene Sarazen
- 1987 — Robert Trent Jones Sr.
- 1986 — Patty Berg
- 1985 — Gerald Ford
- 1984 — Bob Hope
- 1983 — Arnold Palmer

## Flisek latest among Feser honorees



Former Leo Feser winners:

- 1991 — Ken Flisek
- 1990 — Gary Schinderle
- 1989 — Ted Horton and Mary Medonis
- 1988 — Sherwood Moore
- 1987 — David E. Hassel
- 1986 — David C. Harmon
- 1985 — Theodore W. Woehrle
- 1984 — Jerry W. Redden
- 1983 — Gordon C. Witteveen
- 1982 — Louis E. Miller
- 1981 — Paul N. Voykin
- 1980 — Donald J. Pakkala
- 1979 — Oliver Miles
- 1978 — Dan Jones
- 1977 — James M. Hildebrand
- 1956 — Tom Dawson Jr.

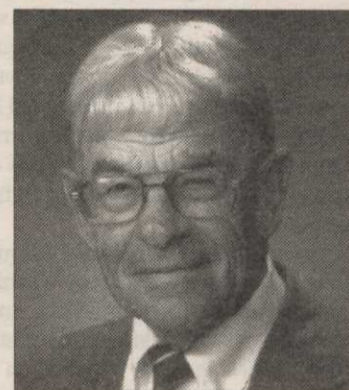
## Kozelnicky, Tate join 60 years of great names benefitting the industry

Past winners of the GCSAA's Distinguished Service Award are:

- 1991 — George Kozelnicky  
C.E. Tate
- 1991 — Dr. Noel Jackson  
W. Bruce Matthews  
Dr. Eliot Roberts
- 1990 — William Bengueyfield  
Dr. Thomas Watschke
- 1989 — James W. Brandt  
Dr. C. Richard Skogley
- 1988 — Dr. Jack Butler  
William B. Davis  
Dr. Kenyon Payne  
Eberhard Steiniger, CGCS
- 1987 — Dr. James R. Love  
David S. Gourlay Sr.
- 1986 — Andrew Bertoni  
John B. Steel  
Howard Kaerwer  
Chester Mendenhall
- 1985 — James L. Blackledge  
William C. Campbell  
Clifford A. Wagoner
- 1984 — Warren A. Bidwell  
Keith Nisbet
- 1983 — James B. Moncrief  
Dr. Joseph Troll  
Dr. James R. Watson
- 1982 — Milton J. Bauman  
Sherwood A. Moore  
Alexander M. Radko  
Ben O. Warren Jr.
- 1981 — Geoffrey S. Cornish  
Dr. Ralph Engel  
Hans C. Schmiesser
- 1980 — Manuel L. Francis  
Dr. John Madison
- 1979 — Dr. C. Reed Funk
- 1978 — Dr. Roy L. Goss  
Dr. John C. Harper II  
Arthur A. Snyder
- 1977 — Harold W. Stodola  
Paul E. Weiss Sr.  
Robert M. Williams
- 1976 — Dr. Joseph M. Duich  
Leo J. Feser  
Thomas C. Mascaro
- 1975 — Dr. William H. Daniel  
Raymond H. Gerber  
Dr. Fred Grau
- 1973 — Walter R. Boysen
- 1964 — Theodore W. Woehrle
- 1961 — Dr. Jesse H. DeFrance  
Eugene Marzalf  
James Smith



George Kozelnicky



C.E. 'Tuck' Tate

- 1960 — Joseph C. Dey Jr.  
Helen F. Lengfield  
Oyvind J. Noer
- 1959 — Dr. John Monteith  
Oyvind J. Noer  
Richard S. Tufts
- 1958 — Dr. Glenn Burton  
Professor L.F. Dickinson  
Malcolm R. McLaren  
Professor H. Burton Musser  
Joseph Valentine
- 1957 — Thomas Dawson Jr.  
Herbert Graffis
- 1954 — Dr. Fred V. Grau
- 1952 — Oyvind J. Noer
- 1941 — Frank W. Ermer  
William H. Johnson
- 1940 — Colonel John Morley
- 1935 — John MacGregor
- 1932 — Colonel John Morley

## Bill Roberts expected to join distinguished line of GCSAA presidents

Past presidents of GCSAA are:

- 1991 — Stephen Cadenelli
- 1990 — Gerald Faubel
- 1989 — Dennis Lyon
- 1988 — John A. Segui
- 1987 — Donald Hearn
- 1986 — Riley L. Stottern
- 1985 — Eugene D. Baston
- 1984 — James W. Timmerman
- 1983 — Robert W. Osterman
- 1982 — James A. Wyllie
- 1981 — Michael R. Bavier
- 1980 — Melvin B. Lucas Jr.
- 1979 — Charles H. Tadge
- 1978 — George W. Cleaver
- 1977 — Theodore W. Woehrle
- 1976 — Richard W. Malpass
- 1975 — Palmer Maples Jr.
- 1974 — Charles G. Baskin
- 1973 — Clifford A. Wagoner
- 1972 — Robert V. Mitchell
- 1971 — Richard C. Blake
- 1970 — Norman W. Kramer
- 1969 — John J. Spodnik



Bill Roberts — the choice for 1992

- 1968 — James W. Brandt
- 1967 — Walter R. Boysen
- 1966 — Edward Roberts Jr.
- 1965 — L.R. Shields
- 1964 — David S. Moote
- 1963 — Roy W. Nelson
- 1962 — Sherwood A. Moore
- 1961 — L.E. Lambert

- 1960 — James E. Thomas
- 1959 — Elmer G. Border
- 1958 — Robert M. Williams
- 1957 — Paul E. Weiss Sr.
- 1956 — A. Ward Cornwell
- 1955 — William Beresford
- 1954 — Norman C. Johnson
- 1953 — Leonard J. Strong
- 1952 — Malcolm E. McLaren
- 1951 — William H. Johnson
- 1950 — Ray H. Gerber
- 1949 — Carl A. Bretzlaff
- 1948 — Chester Mendenhall
- 1946-47 — Marshall E. Farnham
- 1941-45 — Harold W. Stodola
- 1940 — John Gray
- 1939 — Frank W. Ermer
- 1938 — Joseph Ryan
- 1937 — John Quail
- 1936 — John Anderson
- 1935 — Fred A. Burkhardt
- 1934 — W.J. Sansom
- 1933 — John MacGregor
- 1926-32 — Colonel John Morley

# Seeing New Orleans is a unique treat...

*There are numerous free — and almost free — activities around the city*

New Orleans is noted for its music, and it seems only appropriate that there is much that can be seen and heard for a song Free!

The logical place to start is with the MUSIC! The music soars from street-corners in the Quarter; sings in the French Market, where week-end jazz concerts take place year-round. Each Sunday at 4 p.m. there are classical music concerts at Christ Church Cathedral on St. Charles Avenue. And you can hear all sorts of great street musicians in Jackson Square.

Jackson Square is the hub and heartbeat of the French Quarter, and has been from the very beginning. It was originally named Place d'Armes and was the center of activity for the French Creoles. Today, the former parade grounds is a pretty green park, smack in the midst of things. The fence surrounding the park is decorated with the wares of the New Orleans artists who work in the Square. And musicians in the Square play everything from jazz to reggae to rhythm and blues, while tap-dancers, mimes, and fire-eaters entertain the on-lookers and listeners.

St. Louis Cathedral. It's the country's oldest active cathedral, and it's located right in Jackson Square.

You can get a great view of Jackson Square and of the Mississippi River from Washington Artillery Park on Decatur Street. And if you want to get closer to Old Man River, stroll along the Moonwalk. Park benches on the promenade offer a ringside view of the foreign vessels, pugnosed tugs and frilly riverboats on the Mississippi.

On the downriver side of Washington Artillery Park, the French Market has been a trading center for over 150 years. The busy and colorful market is chock-a-block with specialty shops, fruit and vegetable stalls, lots of entertainment, and a flea market. On the other side of the Park, Jackson Brewery, The Mill-House and The Marketplace are on the side of a framed brewery. The renovated buildings now house a host of boutiques and eateries overlooking the Mississippi River.

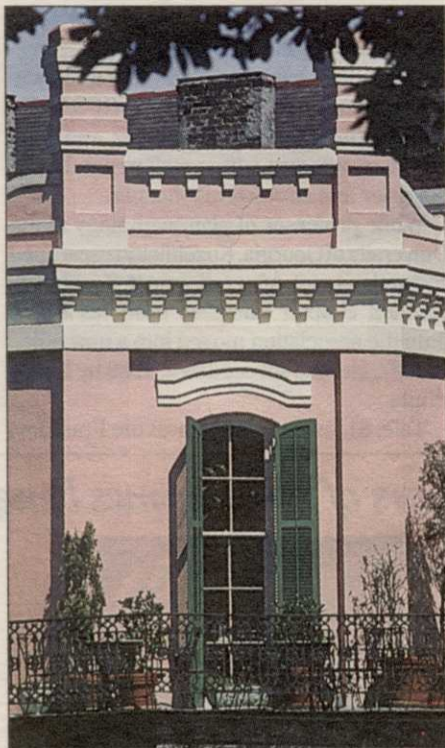
Stroll through Woldenberg Riverfront Park, 13 acres of landscaped greenspace featuring more than 300 oak trees, magnolias, willows and crepe myrtles with a large lawn and brick promenade offering direct access to the Mississippi River.

Follow the French Quarter Walking Tour, published by the Greater New Orleans Tourist and Convention Commission, and see the historic sights and sites in the Vieux Carre. The brochure also includes a driving tour that takes in some of the handsome mansions of the Garden District, which lie upriver of the French Quarter. St Charles Avenue is a lovely, tree-lined street that leads to the Garden District, and a walk or drive down First Street will give you a tempting taste of what that splendid part of town has to offer.

Park Rangers of the Jean Lafitte National Historic Park conduct free tours of the French Quarter and the Garden District. You can spend a full day browsing through the city's Art Galleries. There are 48 of them that feature rotating exhibits!

The Foreign Plazas pay tribute to four nations that have figured prominently in the city's history. Piazza d'Italia features an open-air temple and a fountain in the shape of the map of Italy; Sir Winston Churchill jovially waves a cigar in English Place; a small but dazzling statue of Joan of Arc marks Place de France; and the splendid Spanish Plaza is awash with fountains and handsome mosaic tiles.

There are many other Statues and Monu-



*Its architecture is a hallmark of the city.*

ments that salute the city's heroes and heroines. The Crescent City's founder, Jean Baptiste le Moyne, Sieur de Bienville, stands on the corner of Howard and Loyola avenues. In Jackson Square, there is a colossal equestrian statue of General Andrew Jackson, the hero of the Battle of New Orleans in 1815. Confederate General Robert E. Lee, the South's most beloved warrior, stands guard at Lee Circle. Henry Clay, Benjamin Franklin, General P.G.T. Beauregard, and Margaret Haughery are among the host of others commemorated by statues or monuments.

There are spectacular views of the city from the Top of the Dome on the 32nd floor of the Hyatt Regency, the River View on the 41st floor of the Marriott, and from the many eateries in the Jackson Brewery and the Millhouse.

Do as the locals do and spend a refreshing day at the Lakefront, enjoying the sun, picnicking on Lakeshore Drive, and watching the sailboats on Lake Pontchartrain.

Don't miss the luxuriant Parks of New Orleans. City Park, located on City Park Avenue, is a 1,500-acre urban oasis with moss-draped oaks, lazy lagoons, hiking and biking trails, golf courses, tennis courts, spectacular Botanical Gardens, an amusement park (with a turn-of-the-century carousel!), and ample grounds for picnicking. Things are likewise lush at Audubon Park on St. Charles Avenue. In addition to golfing and tennis, the park offers a 1.8 mile jogging path, shaded by giant oak trees, and 18 exercise stations. It's also a wonderful place for relaxing beneath a tree and building castles in the air. Woldenberg Riverfront Park, 13 acres of landscaped greenspace on the Mississippi, is the perfect location to watch New Orleans' riverfront renaissance taking shape.

New Orleans Architecture is a very special treat. The French Quarter holds quaint two- and three-story structures of frame, old-brick, and pastel-colored stucco, decorated with dollops of gingerbread and swirls of fanciful ironwork. The Garden District is awash with Greek Revival, Italianate and Queen Anne mansions surrounded by luxuriant lawns. But the city has a modern face, too. The fabulous Superdome is the world's largest facility of its kind, and other modern structures include the New Orleans Convention Center, Place St. Charles, the LL&E Tower,

the World Trade Center, and One Shell Square—the tallest building in the city.

You can watch experts make the city's famed pralines, then get the recipe for this tasty candy and take a little bit of New Orleans home to your own kitchen.

## ... AND ALMOST FREE

The St. Charles Avenue and Riverfront Streetcars offer some of the best tours of the city. For just 80 cents (\$ riverfront; exact fare required) you can take a ride on one of the oldest continuously operating street railways in the country. View the beautiful mansions of the Garden District and Carrollton Avenue, or see the attractions along New Orleans' revitalized riverfront.

Catch the FERRY for a breezy ride across the mighty Mississippi. You'll find a whole "new" New Orleans on the other side. Ferries cast off from the Canal Street Wharf, the Jackson Avenue Wharf, and Chalmette and cost \$1.

Don't miss PRESERVATION HALL where \$3 in the hat gets you a night of some of the best jazz in the city! This historic site is located at 726 St. Peter.

A trip to explore New Orleans' many MUSEUMS is a must. The New Orleans Museum of Art in City Park houses several notable traveling exhibits throughout the year and has many fascinating pieces in its permanent collection. Admission is \$4 for adults, \$2 for children and seniors. Call 488-2631. Take a look at the exhibition gallery of the Historic New Orleans Collection on Royal Street, one of the foremost private museums in the country. For information call 523-4662.

Just \$1 gets you into the Pharmacy Museum located at 514 Chartres St. For more information call 524-9077. The Virlane Collection is another must-see housed in the K&B Plaza and open during regular business hours. The Louisiana State Museum is really many museums in one. Buildings include the Cabildo, the Presbytere, the 1850 House, and the Old U.S. Mint. For information call 568-6968. The Germaine Wells Mardi Gras Museum in Arnaud's Restaurant includes the "Queen's Collection," gowns and memorabilia of Germaine Wells, queen of several Mardi Gras krewes from 1937 to 1968. Tour the Old Mint and see a varied display of New Orleans history such as the jazz and Mardi Gras exhibits. It's located at 400 Esplanade, and you can call 568-6993 for more information.

For a wonderful view of the city and the river, ride to the top of the World Trade Center for only \$2 (children 6-12, \$1). The WTC is located at #2 Canal Place and is open daily from 9-5. For more information, call 525-2185.

Looking for an outdoor activity? Try the famous Audubon Zoological Garden. Meet the animals face to face. See the famed white tiger, white alligators, the Louisiana Swamp exhibit, and the World of Primates for a admission fee of \$7 for adults, \$3.25 for senior citizens and children under 12. The zoo is located on Magazine Street behind Audubon Park. For more information, call 861-2537.

For an up-close view of sea life, visit the state-of-the-art Aquarium of the Americas located at the foot of Canal Street. Explore the aquatic worlds of the Caribbean, Amazon Rainforest, Gulf of Mexico and Mississippi Delta. Admission is \$8 for adults, \$6.25 for senior citizens and \$4.25 for children under 12.

The Louisiana Nature and Science Center, located at 11000 Lake Forest Blvd., is another place to explore the great Louisiana outdoors. Take a walk through Louisiana in just a few hours for \$3 for adults and \$1 for kids. Call 241-9606 for more information.



*Riding the streetcars is a thrill; don't leave town without a try*

The city's movable museum is the oldest continuously operating street railway system in existence.

It's more than 150 years old, and the official Historic Landmark clangs, rumbles, and rolls along St. Charles Avenue, which is one of the prettiest thoroughfares in town.

The uptown route runs beneath huge arching oaks, past the handsome mansions of the Garden District, the lush campuses of Loyola and Tulane Universities, and the luxuriant lawns of Audubon Park (home of Audubon Zoo).

The original streetcar line was the New Orleans and Carrollton Railroad, which was founded in 1835 to connect New Orleans with the city of Carrollton (long ago incorporated into New Orleans).

The 35 olive-green cars operating today are Perley Thomas Arch Roof-900 Series models, built in 1923-24 by the Perley A. Thomas Car Co. in High Point, North Carolina. Each car has a 52-passenger capacity.

Once the city's only form of public transportation, the streetcar today is still serious transportation for many New Orleanians.

A true bargain at 80 cents one way, a sightseeing excursion from Canal Street to Carrollton and back is 13.13 miles, and takes about an hour and a half.

A ride on the St. Charles Streetcar is a lovely introduction to the City of New Orleans.

You can also see the sights along the riverfront by streetcar riding the "Ladies in Red." These "ladies" are seven vintage streetcars painted red with gold trim as a historical reference to the old French Market line which followed part of the same route.

Some cars are Perley Thomas and some are Melbourne W2, accessible to the disabled.

This 1.9 mile line, the first to open in the city since 1926, became operational in August 1988. It conveniently connects the cultural and commercial developments along the revitalized riverfront.

A \$14-million expansion project is now underway involving two-directional tracks, additional shelters, a half-mile extension of the line, and a streetcar museum.

# ...Here are some things a visitor should know



## Local transportation varied

### TAXICAB

\$1.70 drop charge + \$.50 for each additional passenger  
\$1.00 per mile  
\$3.00 per person for special events or meter rate if greater Compliments or complaints? Call the Taxicab Bureau at 565-6272. Please be sure to remember the cab company and cab number.

### STREETCAR

St. Charles Ave./Carrollton Ave. and Riverfront lines  
Fare: \$.80 exact fare required; \$1 Riverfront Transfers to public bus: \$.10  
Schedules available at Regional Transit Authority (RTA) office: 101 Dauphine, 4th floor, 569-2700.

### PUBLIC BUS

Fare: \$.80; express is \$1  
Schedules available at RTA Office  
1001 Howard Avenue 569-2700

### "EASY RIDER" SHUTTLE

Circles Central Business District with stops along Poydras and Canal, also runs to the Superdome and New Orleans Convention Center.

Operates Monday - Saturday 6:30 AM - 6:30 PM

Fare: \$.30

### VISITOR PASSES

Entitle bearer to unlimited ridership on all streetcar and bus lines. Available at hotels and shopping areas.

Cost: \$3 for one day, \$6 for three days.

### PARKING

Following are a few parking tips to help keep you moving:

**ALWAYS READ THE SIGNS BEFORE YOU PARK!**

Beware of School Zones. The hours restrictions are enforced

Park-N-Shop-Many downtown businesses and department stores offer free or discounted parking with minimum purchases.

Park-N-Ride - Two Central Business District Shuttle Routes and a Vieux Carre (French Quarter) shuttle are available for your convenience. You may also park outside the downtown area and take a public transit bus or streetcar to your destination.

Many parking lots offer Early Bird Specials, reduced rates for early parkers who arrive before 8 a.m. Times and rates vary, so shop around for the lot that best fits your needs.

GOLF COURSE NEWS

## Spouse program offers a range of activities

The Spouse Program slated for the international conference and show includes special tours, meals and speakers.

Taking place in or originating in the New Orleans Hilton Riverside and Towers, the program follows:

Friday, Feb. 14

9 A.M. — Breakfast: A New Orleans tradition — Cafe au lait and beignets.

10:15 A.M. — City tour, introducing visitors to some of the most historic neighborhoods and landmarks.

Noon — Lunch at a popular restaurant, after which the city tour will continue.

3 P.M. — Buses will deboard visitors at their choice of Julia Street, with its art galleries and antique shops; Riverwalk, with specialty shops and restaurants; or the Hilton Hotel.

Saturday, Feb. 15

9 A.M. — Coffee and juice at the Spouse Activity Center.

10:30 A.M. — A private Mississippi River cruise on the restored steamboat Natchez. A

buffet luncheon will be served on board.

2:30 P.M. — A program, "Coping with Personal and Professional Disappointment," will feature speaker Harriet Hensley, who conducts workshops for the Menninger Foundation's Management Institute.

Sunday, Feb. 16

9 A.M. — Coffee and juice at the Spouse Activity Center.

9 A.M. - 11:30 A.M. — Psychotherapist Wendy Stebbins of the Stebbins Institute will speak on "Dealing with Difficult People."

9 A.M. - 5 P.M. — The Trade Show is open.

12:30 P.M. — A buffet luncheon will be served in the Spouse Activity Center.

1:30 - 3:30 P.M. — A parade just for spouses in traditional Mardi Gras fashion. A traditional New Orleans dessert will then be served, accompanied by music from a local jazz band.

2:30 P.M. — Cajun-style humor will be presented by Dave Petitjean, who will look at the lessons learned by the French Acadians, best described as "laughing at themselves."



## Say what? A lesson in New Orleansese

First of all, Louisianians kindly request that visitors refrain from saying Noo Or-leens. Although that particular pronunciation has a pleasant ring to it when sung—especially when it rhymes with dreamy dreams and Creole queens—it isn't at all proper in conversation. Of course, if you're a Yankee and proud of it, by all means fling about Noon Orleans. It's a dead give-away.

The correct pronunciation of our fair city is...uh...well, sort of, umm...N'Awlins. N'Orlyuns. N'yawlyuns. Well okay. It's pretty unprintable. But what it isn't is Noo Orleans. However...now pay attention because this is tricky...you'll also be recognized as a non-Orleanian if you don't say Orleans when referring to Orleans Parish or Orleans Street. It is Orleans Parish and Orleans Street.

"Orleans" is one of the most prominent shibboleths. They have a lot of shibboleths. To help you blend in with the natives, here are some hints about our sometimes loony localisms.

### CAJUNS AND CREOLES

These days the lower-case adjective "creole" describes virtually anything indigenous to the region, be it a tomato or a house. As a noun with a capital C, a Creole is a person, and therein hangs a tale. When the Spaniards colonized West Indies islands, many of them inter-married with Caribbean Indians. The Spanish word criollo was used to designate a full-blooded child born in the colonies, as opposed to a child of mixed parentage. French settlers in the New World gallicized the word to Creole (pronounced cree-ole). New Orleans was settled by French Creoles—i.e., full-blooded descendants of French colonists. Black Creoles were full-blooded descendants of African slaves, while "people of color"—mulattos, quadroons and octoroons—were of mixed blood. The Cajuns of South Louisiana are descendants of French colonists who, more than 350 years ago, settled in what are now the Canadian maritime provinces of Nova Scotia and New Brunswick. They called their home in the New World l'Acadie and they were known as Acadians. "Cajun" is a corruption of the anglicized word, Acadian. The British, who took possession of that territory in the 18th century, expelled the Acadian. Thousands of the Cajuns eventually settled in south Louisiana.

### WHICH WAY IS UP?

If you're alert, determined, and in New Orleans

long enough, you might be able to figure out which way is north, south, east, or west. New Orleanians don't use such mundane directions, because the serpentine Mississippi River, which carved out the croissant-shaped land mass upon which the Crescent City sits, renders them virtually useless. Instead, they let their waterways call the shots: Downriver (or downtown); upriver (or uptown); lake-side (toward Lake Pontchartrain); and riverside (toward Old Man River). Absolutely no one here would propose meeting on a southwest or northeast corner of anything, because there's really no such place. It takes a bit of practice, but you'll eventually grow accustomed to corners they call "downtown lakeside," "uptown riverside," and so on. Good luck!

### WHAT STREET IS THIS?

New Orleanians are particularly cantankerous when it comes to pronunciations of local streets.

The city was founded by French Creoles who christened the streets in the French Quarter, so you'd think Gallic names would roll right off their tongues. But you would be wrong. Chartres is said like the English word charters; Conti is pronounced con-tie and the "gun" in Burgundy is stressed.

Many an Orleanian refers to Eye-berville Street, and you already know about Orleans Street. Carondelet is a Spanish word, stressed on the second and fourth syllables, and the latter is pronounced just like "let."

Having played havoc with the city's very heritage, you can imagine what they do with street names that are Greek to us. Clio is Clie-o; Melpomene is Mel-po-meen; Calliope is Cal-yope; and we dance around poor Terpsichore to the tune of Turp-see-core.

And while we're on the subject of streets, a sidewalk here is called a banquette.

That's the French word for bench, and of course we mangle it to ban-ket. In the early days, sidewalks were made of wood with a slightly raised bench-like edge on the street side that helped protect the ladies' skirts from the mud and mire.

The French Quarter is also called the Vieux Carre (view ka-ra), which means "old square." Matter of fact, if you look for a "French Quarter" exit off the interstate you'll be out of luck. It's the "Vieux Carre" exit!

## Tax-free shopping draws thousands of visitors to city

The New Orleans Convention Center ranks third in the nation in terms of contiguous exhibit space when Phase II opened last July.

The increased space added 350,000 square feet of contiguous exhibit space, making the total square footage 700,000.

The facility also added a 35,000-square-foot ballroom, and 42 meeting rooms.

There were 459 definite and tentative meetings booked into the New Orleans Convention Center expansion as of July 1991 through the year 2013.

It is estimated that by the year 2000, the economic impact of the facility will be \$1 billion per year.

### LOUISIANA OFFERS TAX-FREE SHOPPING

Nearly 18,000 international shoppers have participated in the Tax Free Shopping program since the opening of the Tax Free Shopping Refund Center at the New Orleans international Airport in November 1989.

At this center, international visitors can secure tax refunds with vouchers from purchases made at businesses that are members of Louisiana Tax Free Shopping.

There are more than 1,000 participating Louisiana retail merchants in the program, including nine tax-free zones: Canal Place, New Orleans Centre,

Uptown Square, Riverwalk, Lakeside Shopping Center, Esplanade Shopping Mall, the French Market, New Orleans International Airport, and Northgate Mall in Lafayette.

LTFS recorded \$14.2 million in retail sales its first year.

Customers from 125 foreign countries spent an average of \$207 per sale and \$773 per visit. The total economic impact of all expenditures by LTFS users was \$38.9 million.

The Chamber/New Orleans and the River Region manages the tax-free shopping program, under the direction of the five-member Louisiana Tax Free Shopping Commission.

# Louisiana's Big Three have made their mark

*The Hebert brothers and Freddie Haas left their home state to stake a claim in world of golf*

By Vern Putney

NEW ORLEANS — As Huey Long symbolized Louisiana politics, so the brothers Lionel and Jay Hebert and Freddie Haas of nearby New Orleans communities epitomize the Pelican State's professional golf excellence.

The Heberts are the only brothers to have won the PGA Championship — Lionel in 1957, Jay in 1960.

Haas stunned the golf world Aug. 20, 1945, at Chickasaw Country Club in Memphis, Tenn. The 29-year-old amateur shattered Byron Nelson's tournament win streak at 11. Haas carded an 18-under-par 270, 10 strokes less than Nelson. He collected \$100 in war bonds, Nelson \$1,600.

Not even being the first American golfer to be a member of both the U.S. Walker and Ryder Cup teams could top that in Haas' book of memories.

All three remain strong players, though Haas underwent an operation early in January and may not resume competitive action until mid-February.

Haas, of the New Orleans suburb of Metairie, had a leg up on golf because Dad Fred Sr. was a top-flight club professional.

The Heberts were born in Lafayette, about 14 miles from New Orleans. Golf wasn't high on the priority list. The boys' acquaintance with the soil came by working in the family garden. They soon "escaped" for caddie duty at the lone small nine-hole golf course in Lafayette.

There were no instructors, no pictures, no books. At age 16, Jay saw Sam Snead play in the 1939 New Orleans Open. Snead became his role model.

However, Jay reasoned that for every Sam Snead in the world there were 100 pros "selling soda pop at country clubs and not making much money."

*When I play an outstanding course, I make it a point to contact the superintendent and congratulate him.'*

— Jay Hebert

Becoming a greenkeeper seemed to offer far more job security.

Jay enrolled at Southwestern Louisiana Institute. Four years in the Marine Corps took precedence. Emerging as a lieutenant, Jay attended Louisiana State University and led LSU to the 1947 NCAA championship.

After the Heberts graduated from LSU, Houston pros Jimmy Demaret and Jackie Burke introduced them to some pros in the East.

"The South was so far behind in golf, it was unbelievable," said



*Next to being able to teach and perform, golf superintendency is the most challenging of professions. Trying to please members ... is a difficult task. But most have succeeded. When you work hard — and they do — remarkable things happen.'*

— Jay Hebert



*The South was so far behind in golf (in the 1950s), it was unbelievable. Golf took on a whole new meaning up there (North).'*

— Lionel Hebert

Lionel. "Golf took on a whole new meaning up there."

The Heberts worked at golf clubs in New York and Pennsylvania and had some success in very competitive tournaments.

Jay struck out for the PGA Tour in 1956, and in 1957 won the Bing Crosby and the Texas Open. His next big score was the PGA title at Firestone Country Club in Akron, Ohio. Even with Snead entering the final round, he posted a two-under-par 70 for the victory and \$11,000.

In 1961, Jay captured the Houston and American Golf Classics.

From 1955 through 1965, Jay racked up a string of runner-up finishes.

Other achievements included PGA quarter-finalist in 1957; Ryder Cup member in 1959 and 1961 and captain in 1961; chairman of the PGA tournament committee in 1957, 1958, 1963 and 1964 and member in 1956, 1957, 1962 and 1963.

Jay left the Tour in 1971 for promotional work. He's long been with RJR Nabisco, promoting customer outings and junior golf.

He recently added a deep bow to the nation's golf course superintendents and a hope that they "enjoy the warm hospitality of the great city of New Orleans."

The Heberts' hearts remain with golf courses and their roots.

Jay, who in 1968 married Barbara Henny and moved to Houston, still takes a strong interest in the "men behind the scenes."

"Next to being able to teach and

perform," Jay declares, "golf superintendency is the most challenging of professions. Trying to please members who perhaps are not up to par as to what you are trying to do is a difficult task. But most have succeeded. When you work hard — and they do — remarkable things happen.

"When I play an outstanding course, I make it a point to contact the superintendent and congratulate him," Jay added.

One such standout is veteran Charlie Joachim, superintendent at Houston's Champions Golf Club, where Jay is a member. The 36-hole Champions, former site for the National Open and Ryder Cup, will host the National Amateur in 1994. Lionel, who won his PGA crown as a rookie, edged Dow Finsterwald, 2 and 1, in the match play final.

Still, Lionel believes the current medal play is a better test of golf skill. "It's a game of ball management, of knowing when to challenge the course and when to lie back. In match play, you can mess up one hole and it's no big deal. In medal play, every stroke is important."

Lionel, like Jay, works for Nabisco. He left the Tour in the mid-1970s, and helped launch the enormously popular Senior Tour.

Lionel, who turned 64 on Jan. 20, last November led his team to a win in the two best ball pro-amateur division of the inaugural \$100,000 World Champions tournament at Wigwam Resort in Litchfield Park, Ariz.

Lionel finished in the top 20 of the



*"At just the mellow side of 50, the latest influx of players are too supple and hit the ball too far. And they still think they're going to hole all the medium and long putts."*

— Freddie Haas

Classic that featured 30 former PGA Tour champions, ranging in age from 60-year-old Gay Brewer to 83-year-old Paul Runyan.

Haas, whom Jay termed a "golf phenomenon," tied Tom Nieporte and Snead with a 75. Haas turned 76 on Jan. 3.

Tagged "No. 1 Iron" in his early Tour days because of a whipcord 135 pounds on a 6-foot-2 frame, Haas has put on little poundage while piling up tournament credits. Staying in shape has been a big help on the Senior circuit.

Haas first won in that category in 1966, lost to Snead in 1970 and three-putted the 17th hole for another runner-up finish in 1977.

Haas can claim one golf distinction that perhaps never will be challenged. From 1946 through 1991, he never failed to collect a Tour paycheck.

Haas had his first tractor ride on his pro Dad's Metairie course at age 5. Soon the junior Haas had shouldered mowing and watering duties when not caddieing.

For him, meeting course playing challenges was more exciting than grooming layout. But one early experience gave Haas pause. As a 20-year-old amateur, the NCAA champion from LSA walked to the first tee somewhat nervously at Baltusrol Country Club in Springfield, N.J., in 1954.

It was his first of 19 U.S. Open appearances. Ten thousand persons were lined up, impatient to have Haas and his partner hit their drives and clear the decks for the next twosome, Snead and defending champion Sam Parks.

The crowd groaned outwardly, Haas inwardly as the ball rose 200 yards in the air and 100 yards off the tee. What the gathering didn't see was Haas recover for a birdie 4. Haas tied for sixth and pocketed \$570.

The proudest Open moment for Haas was playing in the 1941 Open at Colonial in Fort Worth, Texas. The field included his Dad, Fred Sr. and Masters champion Ed Dudley built the first PGA course, at Dunedin, Fla.

As for continuing on the Senior

Tour, Haas says, "At just the mellow side of 50, the latest influx of players are too supple and hit the ball too far. And they still think they're going to hole all the medium and long putts."

Haas sees his future task as making golf more enjoyable and economical for families. He believes his patented Mod-Sod grass is the answer.

He cited the case of Tour pro Hay Haas (no relation), who installed a Mod-Sod practice green in the back yard of his home in Greenville, S.C.

"We'll have no privacy," his wife pointed out. She was right. Guests were smitten with the outdoor diversion.

"I had no idea it would be so popular," she confessed, "and it's become ideal for entertaining."

Freddie may crash the Guinness Book of Records quite apart from competitive skills. Last April, he spearheaded a volunteer crew of Highmore (S.D.) Country Club members constructing nine Mod-Sod green in 4-1/2 days. They celebrated by playing on the afternoon of the fifth day. (See story, page 86.)

Haas sees Mod-Sod as the best way over the next decade to beat the high cost of course construction.

"Communities such as this small farming area can make golf affordable and courses practical to build," Haas declares. "Highmore is the 11th Mod-Sod course. All have defied harsh weather conditions."

Haas' switch in golf emphasis to the construction side may make it a bit easier for wife Paula. She's been his constant companion in the grueling grind that has criss-crossed this country innumerable times and touched several corners of the globe.

Meanwhile, the Hebert name may continue to be prominent in golf.

Jay and Barbara have two sons — Jean-Paul, in his third year at the University of Texas and on the golf team, and Jason Philippe, a freshman at Texas A&M, who will be on the golf team.

Jay will turn 69 on Valentine's Day, Feb. 14.



## An electronic matchmaker is born for golf developers, financiers

An electronic dating service for golf and recreation entrepreneurs seeking investors has been developed by Forecast Golf Marketing & Financial Systems, Inc. of Richmond, VA.

The new Golf & Recreation Investment Program (GRIP) is an electronic matching service between the golf/recreation industry and investors. Investors submit profiles detailing the kind of ventures they're interested in, and entrepreneurs submit profiles detailing their proposals.

GRIP records the information in a computer and matches the venture with investors. Both entrepre-

neur and investor pay a subscription fee to GRIP.

GRIP doesn't evaluate or endorse the caliber of any investment opportunity presented through its service or provide investment counseling. Both the investor and entrepreneur remain anonymous until an investor wants to pursue a deal.

If the investor isn't interested in a particular deal, his comments are conveyed to the entrepreneur by

GRIP so that there is an opportunity to revise and improve the funding proposal.

GRIP project member James Murphy calls GRIP "an elegant solution for the golf industry at a time when conventional financing sources are drying up."

GRIP Services Group is located at 3312-B Old Courthouse Road, Richmond, Va. 23236; telephone 804-276-5280.

## Development, championship course OK'd in Minnesota

LAKEVILLE, Minn.—The city council recently approved a development of homes and a 109-acre, 18-hole championship course at Crystal Lake Golf Estates. Construction on the \$4.6 million golf course is expected to begin in the spring, with golfers teeing off in 1993.

Preliminary plans call for 267 homes in the subdivision. Twenty two acres of a 55-acre wetland near

the site will be preserved as part of the golf course, and other parts will be restored to wet prairie, with wild flowers and fauna replanted. The golf course also reduces a pattern of dense housing development in the area, and has received strong support from area residents.

Minnesota is considered one of the top golf participation states in the country, with 21% of residents calling themselves golfers.

## California county deciding whether golf courses are open spaces

STOCKTON, Calif.— County supervisors in Stockton are considering whether to define golf courses as open space, land kept in its natural state or land that is a wildlife habitat.

If supervisors consider golf courses as open space, developers could be eligible for the same tax break now available to farms under the Williamson Act, a California state law that grants landowners lower property tax rates for not developing their land.

Environmentalists contend that the Williamson Act was developed to save farmland and open space, not give golf course developers a break.

"This proposed amendment would allow areas no more appropriate than my front yard for wildlife habitat," said Steve Stocking, a biologist at Delta College and representative of the Sierra Club.

The golf course discussed at the Buckeye Ranch project would be part of a development proposed by Catwil Corp.

The company wanted to include a 70-acre private golf course and 26 luxury homes on an 870-acre parcel of land now under the Williamson Act contract. The rest of the acreage would include a nature preserve.

The project is located along the Mokelumne River in the Brovelli Woods area, one of the few prime riparian forest still standing in California.

Tom Zuckerman, director of Catwil Corp., said keeping the proposed golf course and wildlife preserve under the Williamson Act would help ensure the land won't be further developed in the future. Wildlife would be able to live on the golf course.

A Williamson Act contract last 10 years and is self-renewing unless a landowner files for cancellation, whereupon the owner pays 12.5% of the property's market value to the state.

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## Smelter works cleanup site projected as Nicklaus course

### Atlantic Richfield must meet Superfund restraints

MISSOULA, Mont. — Atlantic Richfield Co. will reclaim a Superfund hazardous waste site at the northeast corner of the Anaconda Copper Co. smelter works with an 18-hole golf course.

The \$5-million \$10-million course, designed by Jack Nicklaus, will be opened in 1995.

Meanwhile, ARCO will have to meet all Superfund cleanup requirements before construction starts on the course.

Anaconda started smelting ore at the site in 1884 in open-pit roasters. The residue is contaminated with copper, cadmium, lead, zinc and arsenic.

ARCO intends to contour the tailings, then cap them with clay and top the clay with soil and grass for the golf course.



The 16th tee at SilverHorn Golf Club in Oklahoma City shows the variety in range of tees which, on some holes, number as many as six. Architect Randy Heckenkemper designed the layout with assistance from PGA professionals Willie Wood and Scott Verplank.

## 100 jobs said product of Ala. public course

OPELIKA, Ala. — A 54-hole public course here should create about 100 direct jobs and 600 indirectly related jobs.

Links on the Lake will pump more than \$28 million into the state's economy. After five years of business, the short-run economic impact of the complex will be about \$52.6 million, said Auburn Technical Assistance Center director Henry Burd.

The Opelika course is one of six in Alabama financed by the Retirement Systems of Alabama. The \$10-billion pension fund invests in projects in Alabama whenever it can find the right combination of safety and return.

Links on the Lake is being developed by Birmingham-based SunBelt Golf Corp, and will cost about \$12 million.

## Horses, golf to share land

MORROW, Ohio — Classicway Farm, a 176-acre thoroughbred horse training center with a half-mile covered track, probably will continue to operate, sharing the land with an upscale public 18-hole golf course and, eventually, new houses on 58 residential lots.

Adding birdies to the horses could begin as soon as this spring or as late as early 1993, according to financing. Construction will take about a year, with an estimated cost at \$1.4 million.

William C. Southerland and Jim Bonaminio bought the farm for \$1.1 million last April.

## Boise may build its 2nd muni

BOISE, Idaho — City officials are considering developing a second publicly owned course, this one on land surrounding the Boise Municipal Airport.

A Boise golf pro said current golf courses open to the public become overcrowded during good weather, and additional holes would be welcome.

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# In Iowa, golf communities turning into hot properties

DES MOINES, Iowa — People like open spaces. And they really like open space around their homes. And when that open space can be profitable, so much the better.

While the economy is stopping open-space golf course communities in many parts of the country, in Iowa the idea seems to be coming on strong.

In Des Moines, development of at least four golf course communities is being discussed. Owners of a private course in Warren County

have plans to build 550 residential units.

The Amana Colonies golf course is complete and townhouses are being built around it.

In Pella, the Bos Landen Golf community is under construction. Executive houses are being planned around an Arnold Palmer-designed course near Sioux City, the \$20-million Dakota Dunes.

Joe Chapman, president of the Amana Colonies development, says: "Iowa is just catching up.

See related story, page 52.

Typically Iowa is behind the booms. Some areas of the East and South are over-saturated with golf course communities.

"Whether that happens here, I don't know. It's something you risk when you start planning a development."

The Amana development offers a mix of housing styles and prices. According to land planner Larry

Decker, Iowa — particularly Des Moines—could easily become over built with golf course development, because everyone is trying to be the first into the market.

He said markets studies are a must.

Among the golf communities being discussed by developers: Glen Oaks in West Des Moines, a private golf course on 435 acres of farmland that would feature a clubhouse and executive-style housing.

It would cost more than \$50 million to develop and be valued at \$200 million when completed. River Oaks, 465 acres on the Raccoon River, straddles the Dallas-Madison county line. It would have a semi-private course surrounded by \$150,000 houses.

A developer plans a 400-acre golf community in Ankeny, and another 400-acre golf community seems to be in the works in Urbandale.

Developer William Knapp is considering giving the city of Urbandale 150 acres for a municipal course.

"To have a successful housing development today, you need a successful amenity," said Iowa Realty's Michael Knapp. "The one amenity not offered around here is a golf course community."

Developers often sell lots for 20 to 50 percent more in developments offering amenities. But strong consumer demand for a house on a course doesn't automatically make it a money-maker.

There is a large amount of planning, research and carrying costs involved.

Selling residential lots aside, developers also have to be concerned about whether the golf course itself is a success.

Michael Coppola, owner of Echo Valley Golf and Country Club in Warren County, says: "The concern of a new homeowner on a new golf course is, 'Is it going to be successful?'"

"You get the first rush of buyers who pay premium prices for good lots. If the course is stagnant and development slows down, discounts take place... That doesn't feel too good when you're the first guy in."

## Bond switch to pool angers townspeople

PLANO, Texas — Seven years ago, voters in Plano approved a second public golf course and its \$4.6 million in bond cost.

Now they're really upset that the town has proposed shifting funds from the golf project to build a third public swimming pool.

About 70 members of Plano's three organized golf groups appeared before the Parks and Recreation board to plead with it to follow through on the voters' approval and build the golf course.

The current municipal course had 68,000 rounds of golf played last year.

## Club Development placed in charge

ENGLEWOOD, Fla. — Club Development & Management Inc. will oversee development and construction of Oyster Creek Golf & Country Club here.

Ted McAnlis will design the course, a par 60.

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# Burdened with debt loads, some golf course

Continued from page 31

are having a tougher time than in the early 1980s. There are pockets of communities with relatively good success in the marketplace. But by and large, this type of community is struggling.

At the same time, stand-alone golf courses may be seeing a Renaissance, even though they, too, are hurting to an extent. But they have an advantage: They are not burdened with a debt load associated with real-estate financing, and

thus they can be faster on their feet to correct a problem.

If golf course residential communities are having problems of greater or lesser degree, why?

Opinions are diverse. In many cases, the problems are a product of the savings and loan debacle. But there are other, equally important reasons.

Lewis Goodkin, president of Goodkin Research Corp. in Fort Lauderdale, Fla, says nationwide, many of these communities were

*The dominant market profile is the worker-age households. The homes in these golf course communities are in a price range that these households can't afford.'*

— Lewis Goodkin

Goodkin Research Corp.

built for the second-home market.

"However," he says, "the dominant market profile is the worker-age households. The homes in these golf course communities are

in a price range that these households can't afford.

"In Florida, the problem has been an excess of supply," Goodkin says, "There is an oversupply of

the high-end golf course communities. This creates too much competition. The demand may be strong, but there are too many people going after this particular buyer, so the effect is negative."

Robert Johnston, executive vice president of Homebuilders and Contractors of Palm Beach County, says golf course communities in his area are doing no worse than other real-estate communities without golf courses.

But, he adds, in any startup situation — and in Palm Beach County there are several new communities — the sales are usually slow.

"I think the market here is dependent upon people coming out of the Northeast," Johnston says, "people who are semi-retired or who want to purchase a second home. That market has been slow, and it has impacted all the real estate here."

Judy Brown, director of marketing and public relations at BallenIsles in Palm Beach Gardens, says considering that the community opened in the middle of a recession and a war, it did surprisingly well.

"I think we had several things going for us," she notes. "First of all, geographically, we're in an area of growth. Our property is located in a fairly high population area. Secondly, our courses are mature. Everyone knows the JDM name, and that's an advantage for us."

"However, we did see that the buyer from the Northeast was really quiet. We would get a lot of walk-in traffic from people from the Northeast, but inevitably, they would have to sell their homes to purchase here. We've seen our buyers coming from this area, from Broward County and from Boca Raton, where golf course memberships are drying up."

The scenario at BallenIsles, although evident sporadically across the country, is not often the case.

According to Goodkin, some of the problem stems from lack of market research. "They would look at Boca Raton, for instance, and see a high-end market there. But no matter how good that market is, the high end is a relatively modest share of the households. If they didn't understand this, they had problems. Those who were experienced, who understood the marketplace, did better."

Robert Sierra, president of Nicklaus/Sierra Development Co. in Tampa, says this was the case in several areas where his company created communities.

"When we first looked in the Baton Rouge, La., area," Sierra says, "it was totally under-golfed. The leading country club, the Baton Rouge Country Club, had a three- or four-year waiting list. We went there and built the Country Club of Louisiana, and before we opened, two other competitors were there. The only good news is that we managed to sell a couple hundred

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# communities have hit very difficult times

lots. This is the case in a lot of places, like Tampa and the Chicago area."

Sierra adds that two of his company's projects — one in New Jersey and Ruby Hill in California — are still in process, but aren't up and running at this point.

"It's really sad," Sierra says. "Real estate is in the doldrums, more like a depression than a recession, and golf course communities that are having problems are usually having them because of the real estate."

Goodkin notes that a heavy financial debt has impacted many golf course communities nationwide.

"You can have a successful development that is so burdened down with financing — they borrowed too damn much — that the projects couldn't be successful financially," Goodkin says.

"Part of the reason for the borrowing was that many communities gave folks more than they should. They could have gotten by with a 40,000-square-foot clubhouse, but they built an 80,000-square-foot one. They have a designer golf course that is wonderful for a resort or free-standing entity, but was too demanding for the potential buyer. The worse thing you can do to a community that is trying to attract seniors or higher handicap golfers is have a course that's too demanding."

The original developer of Stonebridge Country Club and Stonebridge Ranch, north of Dallas, knows the problems of over-extension firsthand. The infrastructure for the master-planned 6,230-acre property cost \$310 million alone. Three months ago, the bankrupt property was purchased by Mobil Land Development Corp. at the fire sale price of \$33 million.

Steve Houser, vice president of sales and marketing for Mobile Land Development Corp. at Stonebridge, said the cost of building the infrastructure "was way out of line, compared to what the market could pay. It takes time to make a property profitable, and it was impossible to do that at the previous level of debt. But it was at the heyday of the S&L's, and it was easy money."

Mobil plans to build out the property in approximately 20 years, and Houser adds that sales of the homesites are brisk. "We have a wide range of home prices, from the upper 90's to a half million. And it helps that we can offer this diversity of homes."

He notes that the two country clubs are in place and operating. Both sell memberships, but Ranch Country Club is also open to daily-fee play.

Rick Baril, a course designer with Von Hagge Design Associates, says the situation at Stonebridge was not unusual in Texas. The course design firm has seen some of its communities have problems.

"During the 1980s," Baril says, "there was a drastic downturn be-

cause of oil prices. Falcon Point opened in 1984, at the worst possible time, and the bottom fell out.

"The Cliffs, which is located about two hours west of Dallas/Fort Worth, was designed as a weekend retreat. It would have had a difficult time in a good market. The real estate involved with the Cliffs was a HUD project, which required that the amenities be opened before the sales became final. So all of the real estate around it was reserved by different clients before the course

was opened, but the sales weren't final. When the HUD approval took longer than planned and the economy fell apart, the real-estate sales disappeared."

But Baril adds that the Texas building glut had a great deal to do with the problems as well.

"I came into this area just as the Texas market was in a frenzy," Baril says. "If you were in Texas during that time, there was a general insanity going on. The people in Texas thought they were invincible.

They were building at a pace that was incomprehensible.

"Even when Houston got hit economically, there was still building going on in Dallas, as if Dallas weren't really associated with Houston at all, and what could happen there, wouldn't happen in Dallas. I think a lot of the golf course projects that have had problems were a product of this type of mindset, this insanity of building."

There were exceptions, of course. The Woodlands was, and is suc-

cessful. Barton Creek, which is more of a meeting and resort destination than residential area, continues to do well. Part of the reason, according to the Barton Creek's Trilby Babin, is that the complex is owned by Club Corporation of America, and thus has strong management practices.

In other areas, too, there are success stories.

Castle Pines Country Club in the Denver, Colo., area has sold 50

Continued on page 54

## The Penn Pals: Right on Course



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# Courses often remain viable despite economy

Continued from page 53

homes with an average price of \$500,000, and its memberships have increased by 75 during this last year, according to President Merlan Widick.

"I think one of the reasons we've had success is that we are owned by USF&G, which has been willing to put money into the course and into a new clubhouse," Widick says. "Although Denver has had hard economic times, things have been changing in the last 24 months. It

isn't in a boom period, of course, but there is a better economy and real-estate market now than in the last seven years."

The situation is not the same for Glenmoor Country Club in Englewood, Colo., where the developer is defaulting on his loan and the savings loan involved has taken over by the RTC.

"If someone asks us what is going on," says general manager John Welch, "we just say we don't know. The golf course is still private, and

*The "for sale" signs are out throughout the country. The irony is that many of the golf courses themselves are still viable, have members, and have play*

the members are doing a great job managing the course. The clubhouse is still operating. The problem is, the real-estate situation gives the club a bad rap. We have one of

the finest clubs in the Denver area, and the real estate is separate from the club facilities, but all of it is getting the same bad rap."

Welch says another developer may buy the real estate. The members, he says, hope to be able to purchase the course and clubhouse in the future.

The "for sale" signs are out throughout the country. The irony is that many of the golf courses themselves are still viable, have members, and have play. Some of

them have had to resort to opening the doors to daily-fee play to survive, but they are surviving.

The Hills of Lakeway in Austin, Texas, now has part of its property under the ownership of North Carolina National Bank. But the remaining part of the property—three golf courses, a marina, tennis center, airpark and several homesites—are completed and in operation.

According to comptroller Chuck Hansen, the bank is now seeking a buyer for the property.

Bally Meade Club in Falmouth, Mass., saw its original developer leave the area, and the bank that held the paper — Bank of New England — go under. But it's still hanging on.

A spokesperson for Bally Meade says the club came on line at the wrong time economically, which led to its downfall.

Of 258 homesites, only the 46 in the first phase sold. Only five have homes on them. But, the clubhouse and golf course are open.

"All the equity memberships were erased," a spokesperson says. "We're now a daily-fee course."

Also in Massachusetts, Ipswich Country Club is for sale, and Don Tomlin, of Tomlin and Co., is handling the refinancing work.

"We were retained by the Bank for Savings to study the asset, look at all the phases of the asset, prepare an offering book and get it sold," Tomlin says.

"In our research, we found that the Robert Trent Jones course was beautiful, there was a 52,000-square-foot clubhouse, and 168 lots of the 235 had been sold for a total of \$30 million. What basically happened is that the owner hit a brick wall with the cash flow, he couldn't pay the mortgage and the bank foreclosed. If the timing had been different, the subdivision would have been able to pay off the loan. We are not treating this as a foreclosed property. We are treating it as a successful project."

Tomlin, whose company specializes in this type of refinancing project, says in some cases national statistics on the growth of golf weren't interpreted for a local area, and developers found themselves in trouble.

"The siren song of a ready, quick and able high-velocity real-estate sales is a misnomer," Tomlin says. "It's costly to create an infrastructure for a real-estate community. Construction costs are expensive. If you don't have a frugal design of the course, the clubhouse and all the amenities, supported by substantial pre-sales of the homes, then you have a problem with debt reduction."

Al Bechtel, president of Golf Investment Advisors, says these capital costs are often not completely understood by the potential developer or buyer.

"If they see there is an interest in golf, they assume it will work. But what they don't see are the capital

Continued on page 55

GOLF COURSE NEWS

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## Communities

Continued from page 54

costs, the fees involved, and of primary importance, the economic justification for the investment."

The interesting thing to note is that the struggles of the private, high-end golf course community might open the doors to stand-alone golf courses.

Mayacoo Lakes Country Club in the West Palm Beach, Fla., area, is, for the first time, offering annual memberships. The very private course, designed by Jack Nicklaus, has been private since opening in the mid-1970s. But a shrinking membership base and rising operating costs have triggered this push.

Bill Parks, general manager, says the decision to offer two-year annual memberships — which must be converted to equity memberships after the two-years program is completed — came because of cash-flow problems.

"The board looked at the alternatives, one of them being a sharp increase in dues. They didn't want to do this, so they began a program offering the annual memberships," Parks says.

The program has been successful, and is attracting attorneys, doctors and young professionals to the proud old club.

The Carolina Club in near Fort Lauderdale, Fla., has found its own niche by offering the private club experience to daily-fee golfers. Its Southern style clubhouse has a popular restaurant, full locker room facilities, and a newly designed course that's attracting both tourists and locals.

"We found a niche," says Elaine Fitzgerald, the marketing/golf services director. "We are able to offer an upscale golfing opportunity to those who don't want to belong to an equity club. And the people are wild about it."

And what about the golf course residential communities?

The hard truth is that some projects will go bankrupt, and perhaps not be resurrected for many years. In other cases, the property will be sold at heavily discounted prices, which, in the long run, will give the property breathing room to survive.

And others will move along, albeit slowly, waiting until the market catches up to the property.

Sierra says these properties won't see significant growth until the overall economy brightens.

"The areas that come out of this recession the fastest, the ones that have an increase in employment, will see their golf course communities recover the fastest. Some of them may end up being public-access courses, rather than the very exclusive courses they originally planned," he says.

And, Goodkin adds, some of these communities may not be the same as originally planned.

"The communities that are purchased at discount prices will be able to offer more moderately priced housing. But when the market comes back, they'll be OK," he said.

GOLF COURSE NEWS



The challenging Pete Dye course at Stonebridge Country Club north of Dallas is one of two 18-hole championship courses at the facility. The infrastructure for the master-planned 6,230-acre property cost \$310 million alone. Three months ago, the bankrupt property was purchased by Mobil Land Development Corp. bought the bankrupt property for \$33 million.

Mobil plans to build out the property in approximately 20 years, and the two country clubs are in place and operating. Both sell memberships, but Ranch Country Club is also open to daily-fee play.

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CIRCLE #143/GCSAA BOOTH #3264

# Heavy advance work made Fox Brook a quick 'go'

By Bradley S. Klein

Civil engineer Ed Lally believes the only way to get approvals on an environmentally sensitive project is to get the details right — and in advance.

The night his proposed Fox Brook Golf Club and Community came before the Planning and Zoning Commission of Granby, Conn., Lally was even able to show where he planned to put the ball washers. Four bound volumes comprising 693 pages documented everything from storm water management and wetlands delineation to the vertical cross-

section of the eight-foot-wide cart paths and the routes to be taken by bulldozers during construction. In this business, there's no such thing as being over-prepared.

"If you set out to hunt rabbits," Lally said, "you better be ready for bears."

Indeed, these are bearish times, and most people in the Northeast are hibernating when it comes to thinking about golf course development. But when the 46-year-old Lally set out on his odyssey in January 1989, he figured the market would bottom out in a few years and that by this time, the economy would be in recovery.



Ron Garl's routing plan was a painstaking, environmentally challenged undertaking.

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Things didn't work out that way. In 1991 alone, 19 banks closed in Connecticut. Worse yet, the real-estate industry was the downfall of Colonial Realty, a company that had almost single-handedly driven on the bull market in the late 1980s and that has now left behind a trail of hundreds of investors holding virtually worthless notes. The fiasco gave investment syndicates a bad name, and made it difficult to finance even the soundest project.

Despite the chilling of real-estate prices, Lally found that quality new developments were selling. A licensed civil engineer based locally in the north-central Connecticut town of Windsor, he had been chief designer of dozens of successful housing projects. Though he doesn't play golf, he can distinguish between a good and a dull golf course.

"It was obvious golf and quality housing could be made to work together," he said. The trick was not to compromise one at the expense of the other.

A marketing feasibility study indicated that there was a dearth of quality golf courses in the north-central Connecticut, southern New England region.

"We thought about a private course, but realized the market was soft. As for a public facility, there are plenty of them in the area, and it would not have worked financially. But if done right, and if planned as part of a low-density housing developing, a quality semi-private course opened to public play made the most sense," Lally said.

A 336-acre parcel of land was selected in North Granby, about 20 miles northwest of Hartford and equidistant from Springfield, Mass. The rolling, partially wooded site conveys a feel of rural isolation. Yet the Massachusetts Turnpike and Interstate 91 are nearby, and Bradley International Airport is 15 minutes away.

"You wouldn't know it when you're out there," said Lally, "but 800,000 people live in the affluent suburbs within 20 miles of it."

Lally and his partners formed a separate company, Fox Brooks Associates, Inc., to coordinate the development. Lycott Environmental Research, of Southbridge, Mass., did a comprehensive environmental survey, including geology and aquifers.

Certified wildlife biologist Dr. Lee Alexander assessed wetlands habitats, and Dr. Norman Richards of Niantic, Conn., came aboard as environmental consultant, with a strong emphasis on pesticide control.

The soil studies were undertaken by Soil Science and Environmental Services of Cheshire, Conn., and Fred A. Hesketh and Associates of Bloomfield, Conn., completed the traffic analysis.

How did they assemble this team?

Lally said the principle was simple. "We hired the most 'green' people we could find. We weren't interested in political solutions. We wanted to get it done right in the most environmentally sound way possible."

Before there was even the roughest outline of the golf holes, wetlands had to delineated. This is no easy matter, since wetlands classification in Connecticut falls under the simultaneous jurisdiction of both the state's Department of Environmental Protection and the U.S. Army Corps of Engineers, with each agency following different classification procedures.

The crucial step in the whole process was a color-coded delineation of wetlands. Limnologists from Lycott Environmental Research joined Alexander in examining the site for year-round and intermittent streams, the functional integrity of wetland habitats, and the degree to which the wetlands, as found, had been previously disturbed.

Portions of the parcel had long ago been used for wood-clearing and agriculture, and several of the native wetlands had already been disturbed, including significant siltation.

"It isn't enough to find the wetlands you have prior to construction," observed Lally. "You also need to research what had been there before. It's wrong to presume that golf courses must be built on pristine land. In many cases, the land has already been disturbed."

As a result, the development plan now calls for wetlands enhancement in order to return as large an area as possible to its original condition, before it was disturbed by agriculture and forestry.

Florida-based golf course architect Ron Garl was then called in to deliver a routing and grading plan.

After on-site visits and a few preliminary drafts, Garl spent four solid days in Lally's office working with environmental consultants, land planners and civil engineers to develop a satisfactory "footprint."

Garl's insistence on a quality course had to be integrated with the concerns of the environmentalists and land planners. The result is a 6,801-yard, par-71 course routed through a low-density residential development, with several small neighborhood clusters rather than lots running boundary line to boundary line. There are to be 97 single homes interspersed among open space and the golf course, with housing lots sized between .75 and 6 acres.

In order to preserve both wetlands and native woods, several longish trips between green and the next tee are required.

But the property lines are set well-back

Continued on page 57



# Arthur Hills tackles UMichigan renovation, other projects

TOLEDO, Ohio — Arthur Hills, chosen restoration architect for the \$3.1 million University of Michigan Golf Course renovation project, has designed Dunes West, an 18-hole semi-private golf facility on the Wando River 10 miles northeast of Charleston, S.C.

Alister MacKenzie, in collaboration with Perry Maxwell, designed the university course in 1930. Owners plan to restore the course to its original style.

While studying for his degree in

landscape architecture at Michigan in the 1950s, frequent university course player Hills came to appreciate MacKenzie's style with its broad fairways, undulating sloped green and large visible bunkers.

"There will be no Arthur Hills mark on this course," Hills said, adding that consideration must be given the technical advances of modern clubs and balls. "The goal is to make the course better, not necessarily more difficult."

Renovation should be complete

by the spring of 1993. Objectives include renovating bunkers to original sizes, improving internal drainage and sand consistency; larger, stately tee areas; improving green drainage, keeping present surfaces intact, and installing a state-of-the-art double-row irrigation system.

The Dunes West property dates to pre-Civil War days, when it was an expansive working plantation with a mansion, formal gardens, old brick walls and reflecting ponds.

The opening holes have a Pinehurst flavor, playing through corridors of tall pines to slightly-elevated greens.

The longer back nine has a distinctive low country look, playing along marshland.

Its most talked-about feature is its two greens 90 yards apart. When Hills originally routed the course, he planned the 18th as a 370-yarder with a small green tucked against the salt marsh. During construction, he decided

to add a second green with Wagner Creek as the backdrop. This stretched the testing hole to nearly 460 yards.

Scratch Golf of Hilton Head Island owns and operates Dunes West.

Hills' The Golf Club of Georgia, near Atlanta, and Harbour Pointe Golf Course, which he co-designed with Keith Foster near Seattle, were named as Golf Digest's best new private and best new public courses of 1991.

## Fox Brook

Continued from page 56

from the fairways, and half the back nine will be ensconced in woods completely isolated from homes.

The developers have been meticulous in ensuring environmental compatibility.

Three ponds will be dug to serve a variety of purposes, including storm water buffering, irrigation, and as habitat for aquatic life and native plants. The quality of the on-site salmon spawning waters will be rigorously maintained.

A manual outlining the project's operating philosophy also details how both design and maintenance will use sustainable agriculture and integrated pest management to minimize reliance on pesticides and herbicides.

Construction plans already specify areas to be reserved for materials stockpiling.

Because of an important trout stream traversing the fairway on the 380-yard 13th hole, Lally has agreed that no construction equipment will be allowed to move the length of the fairway. Instead, bulldozers and equipment will approach only half of the fairway from the tee side, and then the construction crew will have to travel hundreds of yards around wetlands in order to build the greenside half of the fairway.

Besides the massive volumes of scientific documentation, the permitting application called for exhaustive engineering specifications.

Some 100 detailed blueprints were submitted, showing everything from the installation of culverts under surface roads to the joints of the wooden bridges to be built.

So far, Lally has carried costs of the project on his own. He figures he'll need about another \$3.5 million for course construction, \$2.5 million for the clubhouse and parking lots, and \$4 million for phasing in the housing lots.

Lally's recent progress through the approvals process has now brought Fox Brook Associates to the point where they wish to seek a partner or investor for the project.

And what will Ed Lally, civil engineer, do when Fox Brook is finally built?

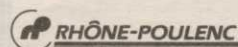
"Well," he said, with a boyish smile, "my mother's an avid golfer, and I promised her she could play the course for life. I also promised I'd play golf with her."

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The par 4, 419-yard 15th hole at The Habitat near Valkaria Airport displays some of the beauty of Charles Ankrom's design on an environmentally sensitive site.

## Ankrom design sensitive to special ecological needs at Habitat in Fla.

Architect Charles Ankrom had a busy 1991, climaxed by a burst of course openings in November, December and January.

Ankrom and his client, the Brevard County Parks and Recreation Department, worked with environmentalists and state agencies to preserve the ecology and wildlife on the aptly named course, The Habitat, in November.

Also in November, he opened Frenchman's Creek Country Club in Palm Beach Gardens, Fla., and The Yacht and Country Club in Stuart, Fla. Fort Lauderdale (Fla.) Country

Club's 18-hole South Golf Course opened in December, and 27-hole Cocoa Beach (Fla.) Municipal Golf Course in January.

The Habitat boasts 30 acres of man-made lakes providing beauty, drainage and playing features, and another 31.4 acres of wetlands, including 12.8 acres of man-made marshes and another 6.9 acres of lakeside wetlands.

The Stuart-headquartered Ankrom and builder Guettler & Sons of Ft. Pierce, Fla., devised construction and relocation methods to protect 38 gopher tortoises. They also worked with state and federal agencies to preserve a family of scrub jays, listed as "threatened" by the U.S. Fish and Wildlife Service.

Nineteen acres of prime scrub jay habitat were preserved within the course boundaries, and a management plan initiated to maintain the birds.

Frenchman's Creek's South Course was remodeled, including redesign of all greens and the 16th fairway.

Many small greens were enlarged, slopes and approaches to the greens were also remodeled, and new mounds, bunkers, exterior contours and grassy hollows added to enhance character and challenge.

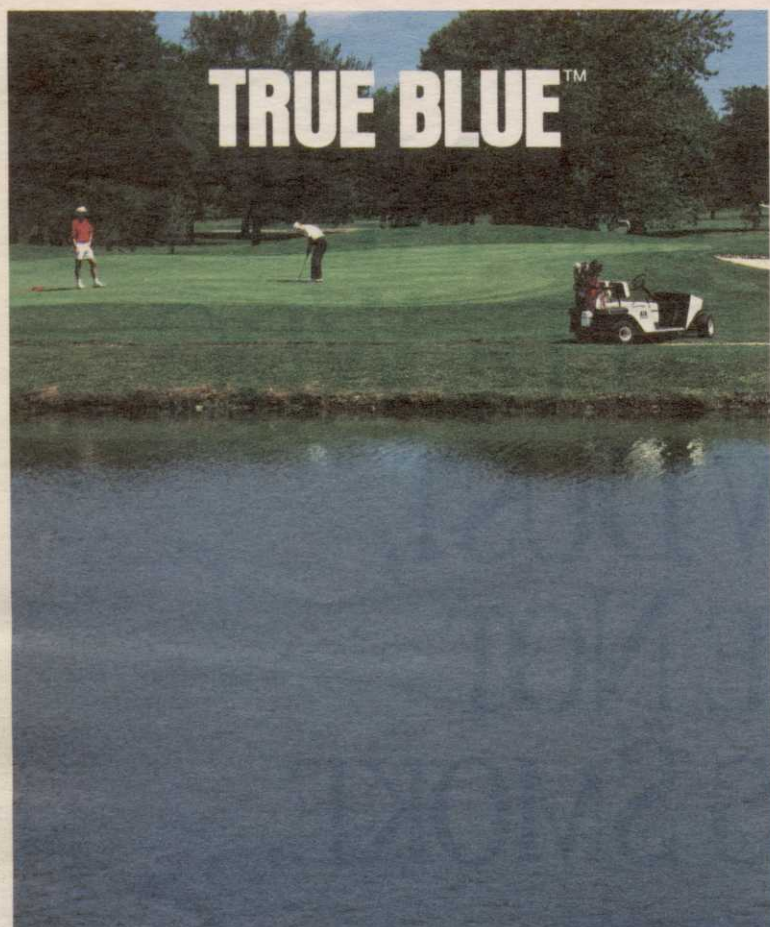
The Yacht and Country Club project involved remodeling all greens, several tees and several fairways. Central Florida Turf was the contractor.

At Fort Lauderdale Country Club, Ankrom abandoned the features of the former layout and built a completely new South Course on the same site. 18 Construction Co. of Jacksonville, Fla., also built four new lakes to generate construction fill while adding playing features and hazards.

The January opening at Cocoa Beach finished two years of plans and construction in which 18 holes were added to the original nine.

Surrounded on three sides by the Banana River and waterways, the course has berms, traps, rolls and contours typical of a Scottish links course. One par 3, three par 4's and a par 5 play along the river.

The builder was DonMac Golf Course Construction Co. of Tifton, Ga.



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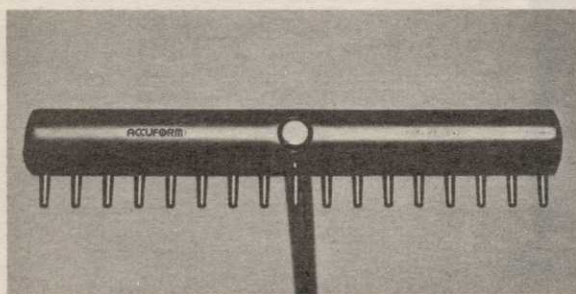


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CIRCLE #147/GCSAA BOOTH #1326

## Course to surround homes in 251-lot Illinois project

WINFIELD, Ill. — Winfield trustees are looking carefully at a developer's proposal to build a 251-house development and 18-hole golf course around an asphalt plant.

Developers want Winfield to annex the Klein Creek subdivision.

The proposed golf course would surround a single-family house and serve as a barrier for the subdivision.

Developers say the course would store storm water in 20 acres of scattered ponds and mitigate the flooding problems plaguing the area.

The 218-acre site would surround the Wheaton Asphalt Co. plant, which is in ongoing negotiations to move the facility across the street.

Other issues facing the town are the need for a new elementary school. Klein Creek Development Corp. wants to open the attached golf course by April 1993.

# National Golf Foundation studies public's feelings about golf

Golfers and non-golfers across the United States differ on effects of and needs for golf courses in their communities

A study of Americans' attitudes toward golf in their communities shows that while most golfers feel good about the effects of the sport, non-golfers aren't so sure.

The National Golf Foundation reported the results of the survey in which it asked 58,292 individuals:

- how they would describe the overall

effect of golf on their communities;

- how they would feel about increasing the number of courses in their area;
- what level of interest they have in the game of golf; and
- if there were more opportunities to play in their community, would they be more interested in golf.

One of five non-golfers and nearly one of 10 golfers said they would respond negatively or very negatively toward the idea of more golf courses in their area. At the other end of the spectrum, 16 percent of non-golfers and 56 percent of golfers said they would respond positively or very positively to news of more golf courses in their area.

To the first question, 67 percent of golfers and 35 percent of non-golfers felt the effect of golf on their communities is positive. Nearly one-third of each group thought it has no effect. Only three percent thought golf has a negative or very negative impact on the community.

Across the nation, results were similar when respondents were asked if they would be more interested in golf if there were more opportunities to play.

Twelve to 17 percent responded they would be more interested, while 21-22 percent responded "maybe" and 63-66 percent said they would not.

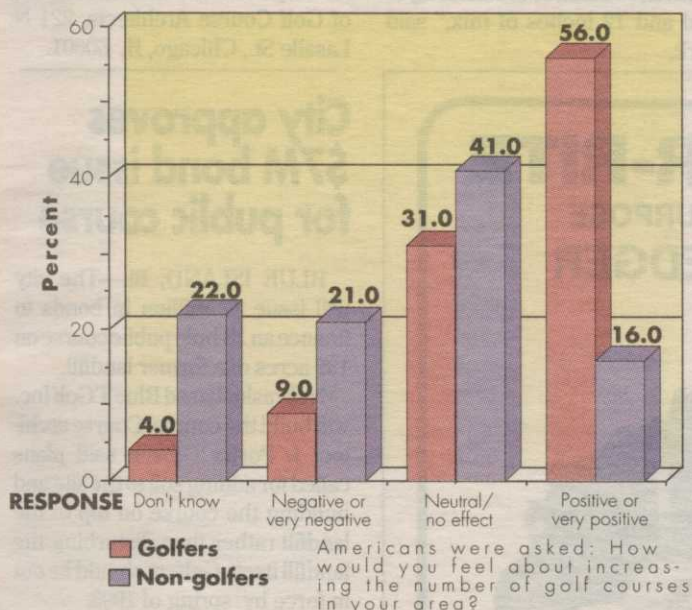
In its report, the NGF found reasons to be optimistic about the results.

The foundation pointed to the fact that "the 39 percent who feel golf affects their communities positively represents a significant segment of the U.S. population. Compared to the U.S. golf participation rate of 13.5 percent, it appears a positive attitude toward golf reaches far beyond the golfing population."

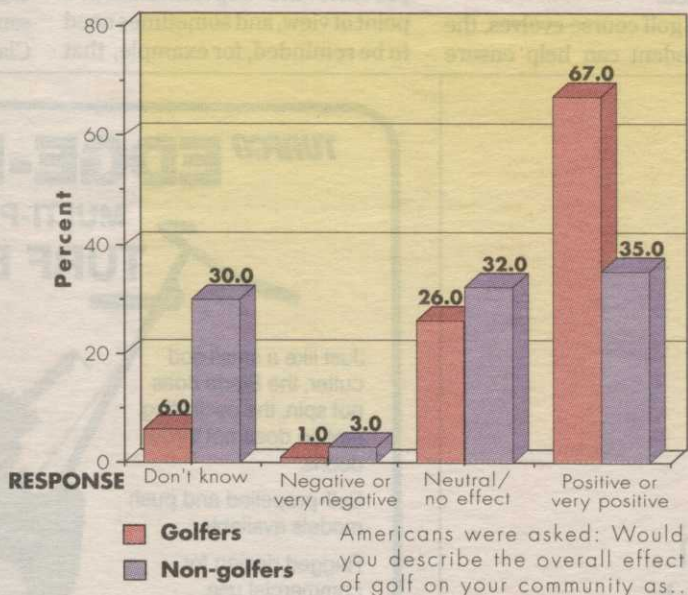
The NGF said the 15 percent who responded "yes" and 21 percent who said "maybe" to the question on their interest in golf "indicate that there is a continued interest in the game of golf across the United States."

The study is available from the NGF, 1150 South U.S. Highway One, Jupiter, Fla. 33477.

## Feelings on more courses in the area



## Effect of golf on the community



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# Clark: Projects should focus on demands of site, players

## ASGCA president speaks out on design

The unique demands of the site and the players who will be using the course should be the focus of golf course development, says Tom Clark, president of the American Society of Golf Course Architects. Architects and superintendents should work together to develop courses that satisfy those needs.

"We try to get a superintendent involved at the start of construction

so he can act as a project liaison, help interpret plans for the contractor and make suggestions that will ease maintenance," said Clark. "For example, if we create a design that is difficult to maintain, he can bring it to our attention while changes can still be made."

"Working together during the design and construction phase enables the superintendent to learn the intent of the original design," Clark added.

"As the golf course evolves, the superintendent can help ensure

that the layout and other components remain true to the architect's original intent."

Although most superintendents don't have the opportunity to be in on the development of a course, they can always check the original plans to learn the architect's design strategy.

"Being informed is 90% of understanding each other," Clark noted. Architects also must appreciate the superintendent's point of view, and sometimes need to be reminded, for example, that

a design element also needs to be mowed twice a week.

Involving the superintendent of the course during construction allows him to interact with the contractor.

It's important to see what goes on underground, as well. "In particular, he needs to oversee the installation of the irrigation system and confirm that the greens, for instance, have exactly four inches of gravel, two inches of barrier layer sand and 12 inches of mix," said Clark,

"When we leave a course it's in his hands."

When remodeling a course, Clark always involves the superintendents and golf pros.

They're the ones, he says, who know the course's strengths and weaknesses and understand what should be improved.

A brochure on master planning may be obtained by sending a stamped, self-addressed business envelope to the American Society of Golf Course Architects, 221 N. LaSalle St., Chicago, IL 60601.

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CIRCLE #153/GCSAA BOOTH #851

## City approves \$7M bond issue for public course

BLUE ISLAND, Ill.—The city will issue \$7 million in bonds to finance an 18-hole public course on 139 acres of a former landfill.

Nebraska-based Blue T Golf Inc. will build the course. Course architect J. Porter Gibson said plans called for adding soil to the site and building the course on top of the landfill rather than disturbing the landfill itself. Golfers should be out in force by spring of 1993.

In Bensenville, golfers are keeping in the swing of things by practicing under the a dome constructed over the outdoor driving range. The dome, 100 yards wide and long and 75 feet high, will stay up until April.

## N.D. opening possible in 1993

MINOT, N.D.— A new 18-hole course planned along the Souris river near Burlington could be open for play by next year.

Two developers are in the process of acquiring land for a 5,200 yard, par-72 course. Ward Nostdahl and Milo Borstad told the Minot Park Board about their plans because the board was considering a second municipal course.

A Minneapolis developer has been working with the developers on the site, presently in the hands of the Bank of North Dakota.

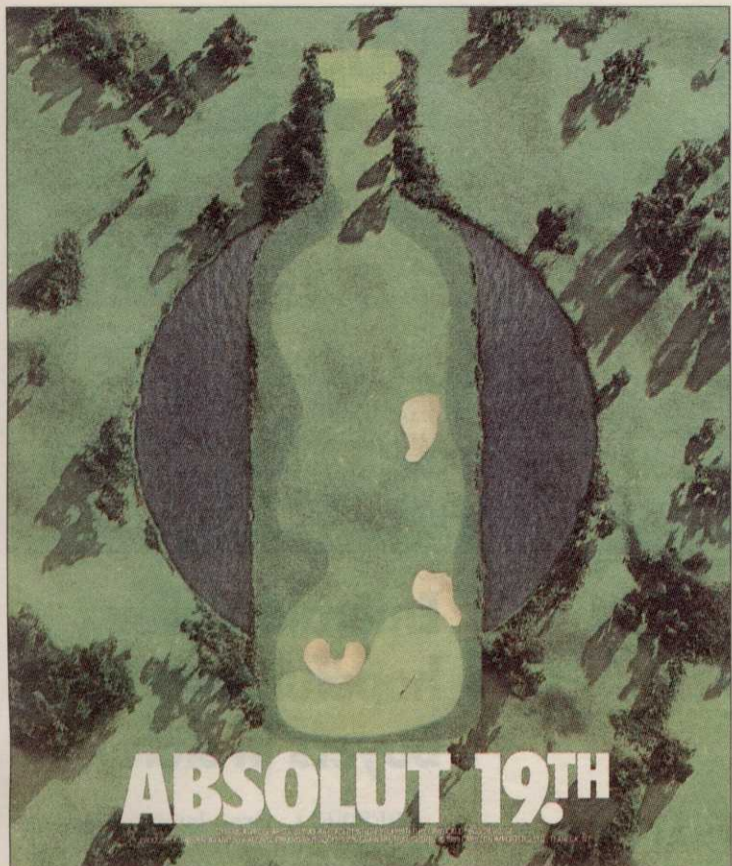
## Chicago course saves farmhouse

WEST CHICAGO, Ill. — A beautiful brick house, 11 years old and full of memories, was moved from one side of a neighborhood in Chicago to another to be used as the clubhouse for the 21-hole DuPage Airport championship golf course now under construction.

The 10-room brick farmhouse with a green roof and cupola was built in 1879 on the 300 acres owned and farmed by the McChessnessy family for five generations.

The Fermi National Accelerator Lab, constructed in the late 1960s, bought some of the farm. Family members are delighted the old building was preserved.

GOLF COURSE NEWS



Vodka ad shows talent of another kind.

## It's not Desmond, rather Feldman

By Peter Blais

Those who saw the recent Absolut Vodka ad of a golf hole shaped like a liquor bottle can rest assured that it isn't the latest work of golf course architect Desmond Muirhead.

"It's a model," confessed Steve Feldman, art director for TBWA, the advertising company that has orchestrated the Swedish vodka company's advertising campaign the past 10 years.

During that time, Absolut ads have featured swimming pools, jigsaw puzzles and even a 20-acre wheat field shaped like vodka bottles. But molding an actual golf hole to look like a fifth of the clear liquid was a bit much, Feldman said.

"(Copy writer) Harry Woods and I looked through many golf course books before coming up with the layout," Feldman said. "But we really don't know whether it would make a good golf hole or not."

Woods and Feldman hit on the golf-hole idea earlier this year. They hoped the ad would tap into the sports arena and realized golf was a favorite among the upscale

## McRae leaves The Landings for Pine Forest CC

Page McRae, former assistant superintendent at The Landings, has moved to Pine Forest Country Club in Jesup, Ga., as superintendent.

McRae is overseeing construction of the back nine at Pine Forest, which has nine holes open.

clientele Absolut (the top-selling imported vodka in the U.S.) attracts.

The 12-foot model took artist Mark Borow three weeks to make. It was photographed by Steve Bronstein.

The ad has appeared in several national and local publications including Sports Illustrated and the New York Times Sunday supplement.

"Some people have called and asked what course it's on," Feldman said.

## Survey finds developers' credit crunch

LOS ANGELES—Nearly all golf course developers are being hit by the credit crunch, according to a survey release in December.

"Despite the continued boom in the U.S. golf industry, top developers in the field are literally fighting for capital," said Robert E. Davis Jr., director of real estate capital markets for the accounting firm Arthur Andersen, which conducted the survey at a recent Academy of Golf seminar in Hawaii.

Seventy-three percent of the 58

respondents said obtaining financing had been difficult.

Davis noted the number of golfers in the U.S. has nearly doubled since 1980 to about 26 million, with "nowhere near enough golf course being built in the United States to meet the demand," according to Davis.

Instead, course developers will focus on projects in Southeast Asia and Europe.

"Their more vibrant economies and real estate markets make it

easier to develop and finance golf properties abroad than in the U.S.," said Davis.

His survey showed that 37% of the developers considered Southeast Asia—specifically Japan, Thailand, the Philippines and Malaysia—as the most attractive locales over the next three years.

He predicted that what little golf course investment occurs in the U.S. will mostly be limited to acquisition of distressed properties.

## Japanese doctors claim poison patients live near golf courses

TOKYO, Japan—A recent report by a group of doctors and dentists showed that nearly 40% of the agricultural poisoning cases they have treated involve people working at or living near golf courses.

Of the 1,436 patients treated for pesticide poisoning, 536 were employees of golf courses, amateur golfers or people living adjacent to the links.

The rest of the cases involved farmers, and people who ingested the chemicals by mistake or in suicide attempts.

Japan has 1,800 courses and 1,440 more either under construction or being planned. Nearly 15 million people, or more than 12% of Japan's 120 million population, play golf.

Many local governments have moved to restrict construction of golf courses pending safety measures to prevent water contamination and other environmental hazards due to the use of chemicals.

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314/965-8454 FAX

CIRCLE #154

CIRCLE #151/GCSAA BOOTH #2616-2618

# Golf courses newly approved in N. America, Cuba, Japan

Location	Course Name	Type	Class	Work	Contact
<b>Colorado</b>					
Estes Park	Pinnacle	D	R	N	Golf Design Services Ltd
<b>North Carolina</b>					
Monroe	Eagle Chase Golf Club	D	R	N	Raymond Mullis, President
<b>Wisconsin</b>					
Delavan	Lake View Golf Club	D	R	N	Ives / Ryan Group Inc.
<b>Canada</b>					
Cochrane	Glen Eagles	P	R	N	Golf Design Services Ltd
<b>Cuba</b>					
Vavadero	Las Americas Golf Resort	R	R	N	Golf Design Services Ltd
<b>Japan</b>					
	Kan Etsu Golf Course	P	R	N	Golf Design Services Ltd

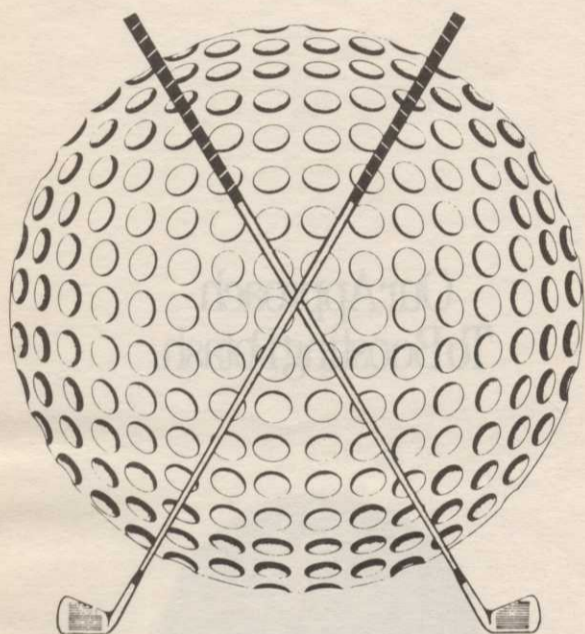
*Golf Course News* is publishing these lists monthly — on this and the opposite page — from our sources and with the assistance of *Forecast Golf Marketing & Financial Systems, Inc.* of Richmond, Va. The chart at the left includes courses that have been approved around the United States and elsewhere in the world in the past month. Courses on the opposite page have been planned in the past month.

Under "Type" — D= Daily Fee; P= Private; and M= Municipal.

Under "Class" — R=Regulation; E=Executive; P=Par 3.

Under "Work" — N=New; R=Renovation.

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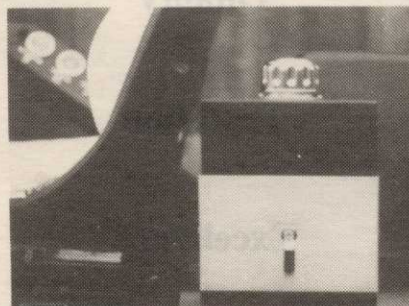
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CIRCLE #156/GCSAA BOOTH #1020-1022

## Emerald Valley hopeful Japanese buyers in store

CRESWELL, Ore—Japanese investors now own more than 185 golf courses in the U.S., and owners of the Emerald Valley resort complex hope they'll be number 186.

The sale would allow developers to turn Emerald Valley into a destination resort, with hotels, a shopping center, a luxury RV park and a health club.

The \$3.6 million transaction with Nissho (U.S.A.) involves about 180 acres, including the golf course and some adjacent buildings, but not the remainder of the 300-acre resort.

Many of the courses purchased on the West Coast attract the Asian market, where exorbitant fees and golf scandals have caused many Japanese golfers to travel in search of their favorite pastime.

Some American golfers are uneasy about the "economic invasion" into their sport, even though Japanese investors have a reputation as being more concerned about quality and willing to make long-term investments in the courses.

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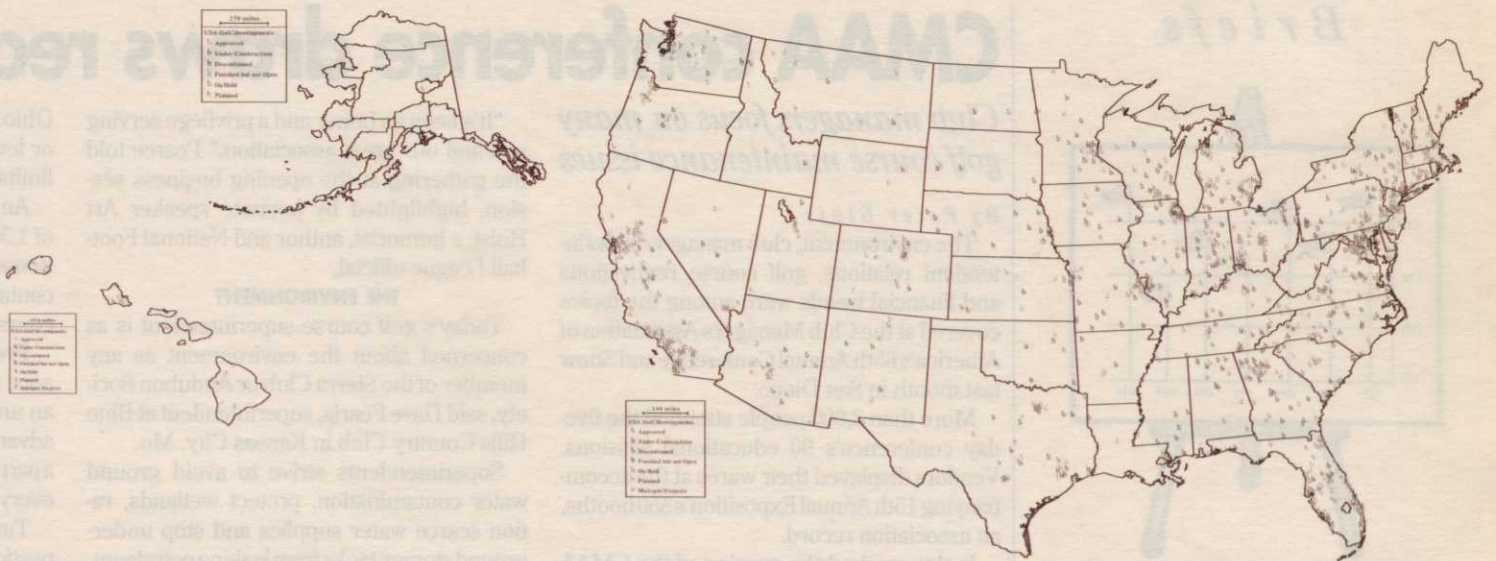
CIRCLE #157/GCSAA BOOTH #735-739

## Golf courses newly planned

*Golf Course News* is publishing these lists — here and on the opposite page — monthly.

The chart below containing the sites and contacts for new courses and renovations in the preliminary planning stages. When these courses are ready to begin construction they will be listed again in the "Courses newly approved" chart.

Please help us continue to update this section. To contact us call 207-846-0600 or write *Golf Course News*, P.O. Box 997, Yarmouth, Maine 04096.



City	Type	Work	Contact	Telephone
<b>Alabama</b>				
Jasper	P	R	Jerry Pate Enterprises	205/387-0561
<b>California</b>				
Beaumont	P	N	Brian Curley	714/795-8941
Ojai	P	N	Dye Designs	
Poway	D	N	Dye Designs	
Rancho Cucamonga	P	N	Brian Curley	714/795-8941
Rocklin	P	N	Brian Curley	916/624-7479
Sacramento	M	N	Dye Designs	
<b>Colorado</b>				
Denver	M	A	Richard Phelps	
Eagle	M	N	Andy Johnson	303/926-3436
<b>Florida</b>				
Gainesville	P	R	Mark McCumber & Assoc	
Green Cove Springs	P	A	Mark McCumber & Assoc	904/284-3559
Jupiter	P	N	Jack Nicklaus	407/626-8139
Mims	D	N	Robert Elder, Owner	407/639-2609
Orlando	R	N	Steve Smyers	
<b>Hawaii</b>				
Hilo	D	N	Dan Maples Design	
Honolulu	P	N	Dye Designs	808/532-1440
Kailua Kona	R	N	Jack Nicklaus	808/885-1035
Kailua Kona	M	N	Arthur Jack Snyder	
Kailua Kona	M	N	Arthur Jack Snyder	
Pearl City	P	N	Dye Designs	
<b>Illinois</b>				
La Salle	D		William J Spear	
Lockport	M	N	Ives / Ryan Group Inc.	708/960-4055
Plainfield	D	N	Ives / Ryan Group Inc.	708/960-4055
Tinley Park	D	N	Ives / Ryan Group Inc.	708/960-4055
<b>Indiana</b>				
Chesterton	P	A	Ives / Ryan Group Inc.	708/960-4055
<b>Kansas</b>				
Shawnee Mission	D	N	Golf Resources Inc.	
<b>Louisiana</b>				
Covington	P	R	Finger-Dye-Spann	
<b>Maryland</b>				
Gaithersburg	P	N	Jerry Pate Enterprises	301/975-1020
<b>Massachusetts</b>				
Dracut			Philip A. Wogan	603/893-2660
<b>New York</b>				
Buffalo	P	N	Cupp Design	
Buffalo	P	N	Cupp Design	
Monticello	R	A	Finger-Dye-Spann	
<b>North Carolina</b>				
Cary	P	A	Tom Jackson	919/467-2566
Morganton	P	N	Tom Jackson	803/268-4891
<b>Ohio</b>				
New Albany	P	N	Jack Nicklaus	614/855-1940
<b>Pennsylvania</b>				
Lancaster	P	A	Cornish & Silva	717/393-3886
<b>South Carolina</b>				
Wyboo Plantation	R	N	Tom Jackson	
<b>Texas</b>				
Conroe	R	N	Finger-Dye-Spann	
El Paso	D	N	Finger-Dye-Spann	
Tomball	D	N	Finger-Dye-Spann	
<b>Washington</b>				
Bainbridge Island	P	R	W L Overdorf & Associates	206/354-5700
Blaine	P	N	Dye Designs	206/332-6300
Lynden	D	N	W L Overdorf & Associates	
Oak Harbor	D	R	W L Overdorf & Associates	206/354-5700
Olympia	P	R	W L Overdorf & Associates	206/354-5700
<b>Foreign</b>				
<b>Canada</b>				
Lac-du-Bonnet	D	N	Golf Design Services Ltd	403/678-5461
Markam	R	N	Cupp Design	
Parksville	D	N	Golf Design Services Ltd	403/678-5461
Toronto Markam	P	N	Cupp Design	
Toronto Markam	P	N	Cupp Design	
Vancouver	P	N	Cupp Design	604/688-8533
Whistler	R	N	Jack Nicklaus	604/932-7990
<b>Puerto Rico</b>				
Fajardo	R	N	Mark McCumber & Assoc	
<b>Italy</b>				
Milan	D		Cornish & Silva	508/278-3407
<b>Japan</b>				
Asahikawa	P	N	Golf Resources Inc.	
Futatsumori	P	N	Golf Resources Inc.	
Tokyo	P	N	Dan Maples Design	



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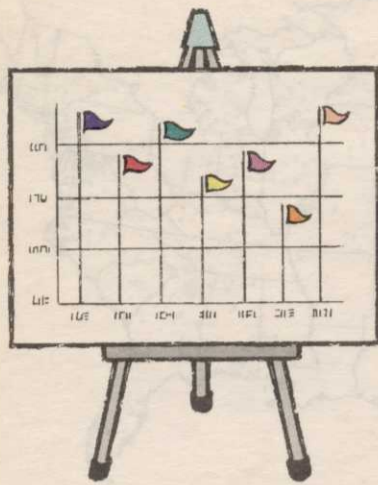
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Briefs



MARRIOTT PROMOTES HAMMOCK

WASHINGTON, D.C. — Kevin Hammock, most recently director of golf at Marriott's Seaview Golf Resort, has been advanced to the newly created position of associate director of Marriott Golf at the unit's headquarters here.

Hammock is involved with development acquisitions, golf marketing efforts and career growth programs for the more than 150 golf professionals on the Marriott golf staff nationwide. He is succeeded at Seaview by Rick Kline, a 10-year veteran of the Marriott Golf program.

Hammock joined Marriott in 1982 at the Camelback Golf Club in Scottsdale as an associate golf professional and was named director of golf at Seaview in 1989. A year later, he assumed additional responsibilities with Marriott Golf as regional director for development.

A graduate of Arizona State University, Hammock was named the 1991 PGA Merchandiser of the Year. He has also earned PGA Merchandiser of the Year honors in the Philadelphia section the past two years.

SIMI HILLS NAMES MGT. FIRM

Golf Enterprises of Santa Monica, Calif., has been selected to operate Simi Hills Golf Course. Golf Enterprises, associated with PGA player Jim Colbert, will lease and manage the golf course for 15 years, beginning in April.

The Rancho Simi Recreation and Park district board chose Golf Enterprises over two other final bidders partly because it offered \$15.3 million in revenue and improvements to the district for the lease period.

National Tennis and Golf Inc. offered \$16.4 million and American Golf Corp offered \$15.1 million. The current manager, G.V. Management, lost the bidding race when its bid came in at \$1.9 million below the others.

KEMPER TO OPERATE PINE FOREST CC

SUMMERVILLE, S.C. — Kemper Sports Management designed, built and will manage Pine Forest Country Club, which opened Jan. 4. "Pine Forest widens the choices we offer area golfers," said Kemper spokesman Tom Lenz, adding he is pleased Kemper has expanded its presence in the "attractive" Charleston market. Kemper already owns and operates Crowfield Golf and Country Club in Goose Creek and operates Patriots Point Links in Mt. Pleasant.

Pine Forest is an 18-hole, par-72 semi-private facility. The course requires accurate tee shots and approaches to avoid Carolina pines that line the rolling fairways and surround plateau greens. Water comes into play on all 18 holes.

The layout measures form 5,007 yards from the forward tees to 6,905 from the championship tees.

# CMAA conference draws record crowd

Club managers focus on many golf course maintenance issues

By Peter Blais

The environment, club manager/superintendent relations, golf course renovations and financial trends were among the topics covered at the Club Managers Association of America's 65th Annual Conference and Show last month in San Diego.

More than 3,000 people attended the five-day conference's 90 educational sessions. Vendors displayed their wares at the accompanying 15th Annual Exposition's 350 booths, an association record.

It also marked the passing of the CMAA presidential torch from James Pearce of The Dallas Club to John Sullivan of Grosse Pointe (Mich.) Yacht Club.

"It's been an honor and a privilege serving you and our great association," Pearce told the gathering at the opening business session, highlighted by keynote speaker Art Holst, a humorist, author and National Football League official.

THE ENVIRONMENT

Today's golf course superintendent is as concerned about the environment as any member of the Sierra Club or Audubon Society, said Dave Fearis, superintendent at Blue Hills Country Club in Kansas City, Mo.

Superintendents strive to avoid ground water contamination, protect wetlands, ration scarce water supplies and stop underground storage tanks from leaking petroleum, Fearis said.

Ground water tests near golf courses at Cape Cod, Mass., West Palm Beach, Fla., and

Ohio State University revealed no pesticides or levels well below federal health advisory limits.

An Environmental Protection Agency study of 1,300 wells nationwide showed wells near homeowners were 2-1/2 times as likely to contain traces of pollutants as those near golf courses.

President Bush has called for zero tolerance of pesticides in drinking wells. But it is an unrealistic goal because of technological advances allowing measurements as small as a part-per-trillion, the equivalent of one second every 32,000 years, Fearis said.

Turf traps the bulk of properly applied pesticides in the top two to three inches of soil and filters out many other contaminants before they can reach ground water, Fearis

Continued on page 66

## Scholarship program recipient joins Dye Designs

DENVER, Co. — In 1986, Dye Designs Inc. established a scholarship program to encourage candidates to seek a college degree in a related field of study which would lead to full-time employment in the golf industry.

On Dec. 14, Daryl Dinkel graduated from Colorado State University in Fort Collins, with a degree in landscape/horticulture specializing in turfgrass management. The achievement is significant because Dinkel never wanted to go to college, but now has a degree in a field of study which Dye Designs Chairman Perry Dye feels will make him a valuable employee.

Dye saw in Dinkel the potential to be the first role model in an educational plan with



Perry Dye, left, congratulates Daryl Dinkel

Dye Designs providing financial assistance for the college classwork resulting in a degree and with the promise of full-time employment after graduation.

Five years ago, Dye and Dinkel discussed four options of study. Dinkel picked landscape/horticulture because he knew he did not like working indoors and could never be an "office person."

Dinkel now awaits his first assignment on one of Dye's golf course design and construction projects. His goal is to become involved in construction and then management as a superintendent.

Continued on page 69

## Course owners recognize contributions of PGA Tour

The board of directors of the National Golf Course Owners Association has presented its Award of Merit to the PGA Tour.

The award was given to Deane Beman, commissioner of the PGA Tour, at a luncheon on Jan. 15 at Catamaran Resort Hotel in San Diego.

The award is presented annually for achievements that "reflect the proud traditions, elevate public awareness, and contribute to the advancement of golf as a life-long recreational and competitive activity."

During Beman's tenure, the PGA Tour has

experienced tremendous growth. PGA Tour Investments, a member of the NGCOA, has grown to include more than 14 golf facilities in the United States.

The Tour has also opened "Family Golf Centers" that are designed to provide a venue for the whole family to learn and enjoy golf. The Tour has brought countless players to the game by conducting golf tournaments throughout the country, many of which are televised to millions of households each year.

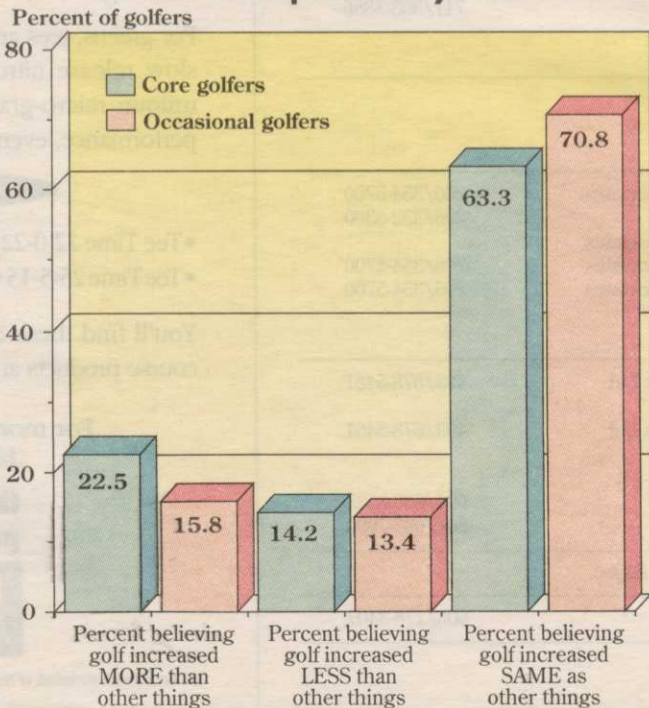
During these tournaments, members of

the Tour put on clinics to encourage youngsters to play and enjoy the game. NGCOA said the Tour has also been an outstanding contributor to a variety of charities, including junior golf programs. The Tour has earned \$184.5 million for charity since its inception. \$115.6 million of this total has been donated in the past six years.

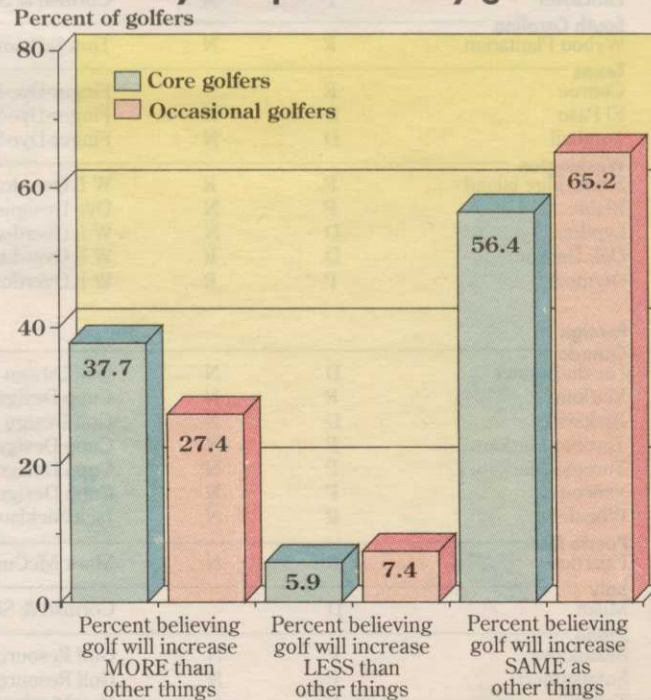
Michael Hughes, executive director of the NGCOA, said: "We are extremely pleased to present our Award of Merit to the PGA Tour."

Continued on page 69

### Player perceptions of the cost of golf over the past five years



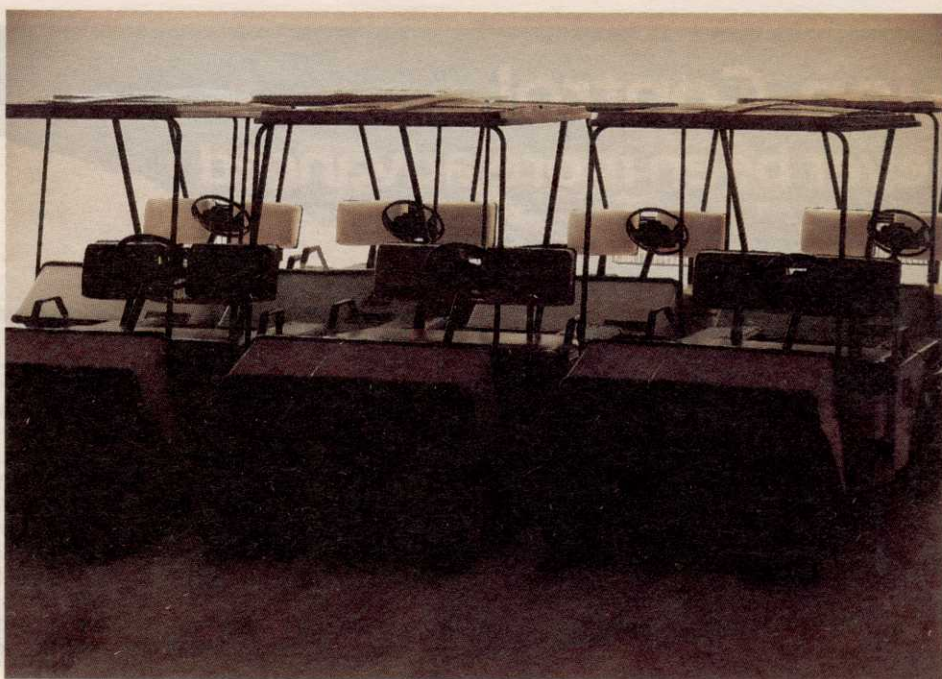
### Increase in the cost of golf in the next five years perceived by golfers



Source: NGF



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\*Tests conducted by Otto Labs, 1991. Test results available.

# Club managers explore variety of maintenance issues

Continued from page 64

said.

More research is needed on ground water contamination. Yet, federal cutbacks have caused universities, like the University of Missouri and Pennsylvania State University, to curtail research, he added. The Golf Course Superintendents Association of America, United States Golf Association and turf industry have picked up some of the funding slack.

"Water may become more precious than oil in the next five years," said the Blue Hills superintendent.

Saving water has become particularly important in areas like Arizona, where new courses are allowed to irrigate just 90 acres of turf; Florida, where most parts of the state are

rationing water at 60 to 90 percent of traditional rates, and many new courses are required to use effluent; and even Wichita, Kan., where a proposal to restrict watering of greens to two hours a night and tees to one hour is under consideration.

Alternative low-water-use grasses, like buffalograss, are being introduced to rough areas, Fearis said. Drought-tolerant tall fescues, zoysiagrass and Bermudagrass are being used elsewhere. Automated irrigation systems with low-pressure heads and more efficient pumps are being installed.

"But the key to saving water is re-educating golfers who are used to a plush green carpet everywhere," Fearis said. "They have to learn to tolerate some brown areas.

"Cutting greens below 1/8-inch is crazy. Cutting below that height requires far more water and pesticides. Acceptance of those changes has to come at the board level."

The federal government is requiring courses with underground storage tanks to have much higher levels of insurance or financial resources by Dec. 31, 1993, Fearis said.

"If you have a tank that is more than 15 or 20 years old, you should put a new one in," he told the assembled managers. "When you remove it, the soil around the tank may be contaminated with spilled gas. That soil may have to be shipped off to an approved landfill."

The U.S. Supreme Court ruling last June

that federal law could not stop localities from imposing their own pesticide regulations has opened the door for local pesticide restrictions in the 83,000 municipalities nationwide, Fearis said. (See related story page 1.)

Even if proposed Congressional bills restoring federal pre-emption on pesticide issues are passed, Fearis predicted stricter environmental laws are on the way in terms of training; restricted-use pesticide applications by licensed applicators; cleaning and disposing of wash water from chemical application equipment; regulations on a chemical's leaching ability; exhaust emissions from utility vehicles and golf cars; disposing of used oil; and installation of eyewash stations.

To help avoid problems, Fearis recommended managers begin training their chemical applicators; conduct environmental audits; make the public more aware of the positives of a golf course; train staff how to respond to the public's questions; institute integrated pest management practices; and have the superintendent join the GCSAA.

## MANAGING THE MAINTENANCE BUDGET

The type of golf course greatly influences the maintenance budget, according to Randy Nichols, head superintendent at Cherokee Town & Country Club in Dunwoody, Ga. and a member of the GCSAA board of directors.

Traditional links and modified links courses are generally easy to maintain because of their lack of trees and largely natural areas, Nichols said.

Modern courses are usually more expensive to keep up with their steep slopes, deep bunkers and undulating fairways. Growth regulators help slow grass growth and reduce mowings.

Hilly courses are particularly difficult on mowing equipment, Nichols said. Brakes on riding mowers must be in top condition to avoid rollovers.

Large greens require more fertilizers, chemicals and mowing, Nichols said. Small greens suffer from extreme wear and are expensive to repair. Somewhere in the middle works best.

Concrete paths are 30 to 50 percent more expensive to install than asphalt, Nichols said. But concrete costs much less to maintain. Partial paths may be the cheapest. Yet, constant re-sodding is necessary where paths turn to grass.

The three major insect pests are grubs, fire ants and mole crickets, Nichols said. They can cost thousands of dollars to control.

Labor accounts for 50 to 60 percent of the average maintenance budget. As the labor pool shrinks, women, minorities and migratory workers become a more important source of workers, Nichols said.

A crowded course can reduce a maintenance crew's effectiveness by 50 percent, he said. Early-morning play keeps workers off the course when they would normally perform most maintenance functions. Shotgun starts leave no place for the grounds crew to work. And the extra work involved in tournament preparations can severely eat away the maintenance budget.

Putting together the golf course maintenance budget should be a joint effort between the general manager and superintendent, Nichols said. It is usually the most expensive part of any overall country club operation. That's fitting since the golf course is the most important part of most facilities. A dropoff in course quality often results in fewer greens fees, reduced play and membership declines, he added.

Nichols said he is a firm believer in the general manager concept. The general manager should sit down with the superintendent to develop the budget. Hopefully, the GM has

Continued on page 67

## Erosion Control has never been more advanced



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Telephone: (407) 352-6757  
Fax: (407) 345-9462

CIRCLE #162

# during the 65th annual CMAA gathering in San Diego

Continued from page 66

spent some time in the maintenance facility, is on the course at least once a week and attends the GCSAA annual convention so he understands the superintendent's needs.

## RENOVATIONS

Renovations are becoming increasingly popular because of the natural aging of golf courses and the relative ease of obtaining environmental permits for renovations compared to new courses, according to New Jersey golf course builder Bill Kellers.

Why do courses do renovations?

Deterioration is the usual reason, whether it is to overworked greens that need rebuilding, traps that need refacing or whatever, Kellers said. Liability can be another reason if, for instance, stray shots are striking cars traveling along a roadway running near the course. Poor drainage is often a motivating factor to improve a course.

Whatever the reason, working with the superintendent is very important, especially on smaller jobs where an architect isn't necessary and the superintendent's crew can do the job itself.

Certain principles apply to reno-



*'Your association is in good financial condition.'*

— Richard Kolasa  
new CMAA vice president

vation work, Kellers said. First, a course should have a good master plan, so that any changes don't alter the course's character. Second, any renovations should have an aesthetic appeal. Finally, any changes should result in a course that is playable for golfers of all abilities, is

easily maintained and is sensitive to environmental considerations.

Logistically, everyone needs to know what is going to happen, from the superintendent to the general manager to the members.

Work should begin at the farthest point from the clubhouse and

work back to minimize impact on golfers. And clean-up after the job is very important, he added.

If several greens need rebuilding, doing them one at a time rather than all at once can also reduce inconvenience for golfers. Sodding and mowing techniques have improved, but if getting the green back into play quickly isn't important, seeding will yield a smoother putting surface, Kellers said.

Finally, once a job is done, Kellers recommended having it independently inspected to make certain it was done properly.

## FINANCES AND TRENDS

The average private course maintenance budget jumped 13 percent in the last year, from approximately \$27,000 per hole a year ago to almost \$31,000 this year, according to Pannell Kerr Forster's 1992 *Clubs in Town & Country*, an annual financial survey of more than 250 private country clubs.

Payroll and related expenses provided the bulk of the increase, rising 16 percent, while other expenses grew by 8 percent. Overall, labor costs represent 48.9 percent of course maintenance expenses.

"That means that half of every dollar in the maintenance budget is spent on labor," said PKF's Kevin Crow. "If you're looking to improve your budget, that's the place to make big things happen. If you can control your labor costs, you can get a lot of mileage out of changes there."

The fact that regular membership dues were up 2.9 percent compared to a 2-percent drop in other memberships (social and tennis for example) demonstrates the importance of golf to the club operation, PKF personnel said.

The national accounting firm will add a new figure to its annual report next year, maintenance costs per round, Crow said.

"We recognize the figure may have more meaning for a club that does 20,000 rounds annually than one that does 70,000," he said.

The firm will also begin publishing reports similar to *Clubs in Town & Country* for the daily-fee and resort course industries, he added.

## BUSINESS AND ELECTIONS

CMAA Secretary/Treasurer Richard Kolasa of Skyline Country Club in Tucson, Ariz., reported the association added \$100,000 to its reserves while decreasing expenses \$14,000 in the past year.

"Your association is in good financial condition," he said.

Kolasa was also elected vice president while Bill Schulz of Houston Country Club was named secretary/treasurer.

Bill Kendall of Woodmont Country Club in Rockville, Md., and Paul Skelton of Troon Golf & Country Club in Scottsdale, Ariz., were elected to the board. Re-elected were Randall Gudanowski of Indian Trail Club in Franklin Lakes, N.J., and Norman Spitzig Jr. of Fort Wayne (Ind.) Country Club.

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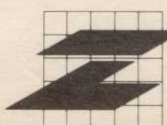


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# Sullivan sets sights on future as new CMAA head

Continued from page 1

tenure, which began when he replaced James Pearce as the association's head during January's annual CMAA conference in San Diego.

"The strategic plan will detail how our association will function and how it can best serve the industry in the coming years," Sullivan said. "Once the plan is developed it won't be etched in stone. It's a living document that will require changes as we move along."

Managing change has been a

constant in Sullivan's professional life and is the biggest challenge facing club managers today, the new CMAA chief said.

Sullivan had a crash course in change when he was recruited for the club manager post at Nakoma back in 1975. Nakoma was traditionally a small men's club. The few women members weren't allowed to use the facilities at certain times.

But Madison's demographics were changing. Dual-income families became the norm. Women and children also needed a place to

recreate, socialize and call a second home.

Sullivan helped guide the membership through the changeover to a family club. The sometimes rocky transformation included the combining of separate men's and women's grills into a single eatery just three weeks after the board of directors voted to separate them.

But despite such early mistakes, Nakoma had a strong board, Sullivan said. Along with the efforts of the other two key players on the staff, the superintendent and golf

pro, the club settled comfortably into its new identity and has become one of the most successful family clubs in the state, he added. Members Andy North and Sherri Stainhauer have gone on to successful professional playing careers.

The characteristics a manager needs to successfully institute and adapt to change, Sullivan said, are good listening skills, the ability to bring different groups together and an aptitude for helping members make the changes themselves.

"Everyone in the club has to buy into the changes or they simply won't work," Sullivan said.

The major changes facing the club industry, Sullivan said, involve membership practices, government intervention, maintaining service levels in a depressed economy, and a mobile workforce that can will leave the club industry without higher wages and proper training.

Membership practices that are sometimes seen as discriminatory to women and minorities have come under increased scrutiny in recent years.

"Most clubs realize this is a fact of life. It's 1992 and clubs must do business in an open manner. There will be clubs that determine to remain exclusively private and retain selective membership practices. But whether they can continue to survive without change remains to be seen. We're going to see more clubs with open membership policies," Sullivan said.

The recession has deeply affected the club business, the new president said.

"It's caused everyone to look at their operations," he explained. "Past recessions have often been good for clubs. People would stay closer to home and spend more money at the club rather than take that trip.

"But because of the protracted nature of this recession, the effects are trickling down farther. Membership waiting lists are dwindling. Clubs that depend on business spending for much of their income are hurting. Clubs need to be more competitive and market to their members to survive. That's the key. Managers need to listen to what their members want and address those needs."

Coming off a record attendance at this year's conference, Sullivan is presiding over a strong association that just accepted its 5,000th member and certified its 900th. He need look no further than a mile down the road to see an equally successful association president, Bill Roberts of Lochmoor Club, who will assume the presidency of the Golf Course Superintendents Association of America at that group's annual conference and show this month in New Orleans.

The odds of two national association presidents working within the same small Michigan community at the same time are pretty astronomical, Sullivan agreed.

"Bill and I talk together on a regular basis. Before I go to a board meeting, I call him and ask what happened at his last board meeting. He does the same with me.

"I lost the first time I ran for the CMAA board and won the second time. Bill did the same with the GCSAA board. We moved on from our former clubs at similar times and came together here I admired his work at Sentryworld (Stevens Point, Wis.) and recommended him for the job here (Lochmoor). We'll probably continue to speak on a weekly basis."



## NEW FROM THE LEADER.

For over twenty years, Fore-Par tee markers have been leading the way on golf courses around the world. Now, two innovative elasto markers have joined the Fore-Par family. Fore-Par's newest personalized anti-rebound marker is ideal for circular club emblems. Our new dome shaped marker combines modern design and durability at an affordable price. Both meet Fore-Par's demanding criteria of reliability and excellence.

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the tubular swivel flag, the modular flagpole, truly distinctive practice green markers and our virtually indestructible elasto signs. For unlimited choices and consistent quality *it doesn't get any better than this.*

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## NGF sponsors seminars for course owners and operators

Course owners and operators will get a chance to learn ways to improve their bottom lines at National Golf Foundation symposiums this spring in Florida and California.

A conference March 15-17 at the Marriott at Sawgrass Resort Hotel in Ponte Vedra Beach, Fla., entitled "Obstacles Overcome by Successful Golf Course Operators" will feature sessions on creating new customers and know-

ing the ones you've got, increasing play among existing golfers and marketing the facility.

The California conference, held April 5-7 at the Newport Beach Marriott Hotel & Tennis Club, is entitled "Issues Affecting the Future of Successful Operations."

It includes sessions on controlling operational expenses, keeping golf affordable in a time of increasing costs, maximizing water re-

sources, low maintenance turf and other technical advances.

Each program is preceded by a golf outing

NGF plans three other 1992 seminars with topics like how successful developers are overcoming today's barriers to golf course construction. Conferences are planned for May 3-5 in Irving, Texas; June 7-9 in Falls Church, Va.; and Sept. 2-22 in Newton, Mass.

## Owners honor PGA Tour

Continued from page 64

The contribution that the Tour has made to the popularity of the game is incalculable. The quality of the play, the professionalism of the events, and the sportsmanship of the players continues to bring people to the game in record numbers.

"We are also pleased to be presenting the Award of Merit to a member of our organization for the first time. The PGA Tour has also contributed to the game by providing the golfing public with some of the finest facilities in the

world."

Beman said: "We are pleased that the Tour has been recognized for playing a part in the growing popularity of the game. It is not only a tribute to the integrity and skill of the players but also to the influence of the tens of thousands of volunteers."

Prior recipients of the Award have been Paul Runyan in 1990, CBS Sports in 1989, Nancy Lopez in 1988, National Golf Foundation in 1987, "Chi-Chi" Rodriguez in 1986, Bob Hope in 1985, Jack Kidwell in 1984, Kathy Whitworth in 1983, and Calvin Peete in 1982.

## NCA conference set for late March

The National Club Association Club Leadership Conference, focusing on critical trends and changes in legal, legislative and environmental concerns, will be held March 22-25 at Pinehurst (N.C.) Resort and Country Club.

The conference is designed for private club directors, owners and general managers, especially incoming officers.

Three half-day sessions will target the topics understanding your legal/legislative arena, defining your club's management team, controlling your dollars and responding to your environmental concerns.

Among the speakers will be Harold B. Berman, senior partner of Berman and Mitchell of Dallas, director and past president of the NCA; Stuart Cohen, president of Environmental & Turf Services, Inc. of Silver Spring, Md.; Edward D. Coleman, former director of the exempt organizations division of the Internal Revenue Services and currently a partner with the law firm Webster, Chamberlain & Bean in Washington, D.C.; James E. Maser, vice chairman of Club Corp International; John Metelski, chairman of The Front Royal Group, Inc. of Sterling, Va., which addresses environmental liability issues; James E. Petzing, whose Duluth, Ga., firm is an international hospitality consultant specializing in clubs and resorts; and William F. Wernersback, a partner of McGladrey & Pullen of Ft. Lauderdale, Fla., which provides audit, accounting, tax and advisory services to private clubs.

More information is available from the NCA at Washington Harbour, 3050 K St., N.W., Suite 330, Washington, D.C. 20007; telephone 202-625-2080.

## Scholarship

Continued from page 64

Other students are currently enrolled in the Dye Designs' Scholarship Program. Dye also offers summer internships to students seeking the opportunity of a hands-on approach to learning golf course architecture. These student interns spend the summer at Dye Designs working closely with senior Dye staff. This two-year program gives the intern exposure to all of the elements of golf course design and construction as practiced at Dye Designs.

GOLF COURSE NEWS

NEW FROM TURF-SEED!  
**MOW-LESS**  
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Dark blue-green MowLess blend stands out against a Southern California background. Drought and heat tolerant Mow-Less offers year-around color in areas not before considered possible.

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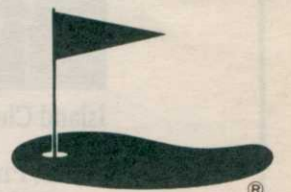
- Lower vertical growth means less clipping removal!
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Mow-Less Brand Tall Fescue blend was developed to save conscientious turf managers time, money and clippings.

Mow-Less is a blend of the latest generation of dwarf tall fescues. Today, Mow-Less is composed of Silverado, Tomahawk (5DX), Monarch and Eldorado. As newer varieties are developed, like 5PM and 59D, they will be included in Mow-Less.

The components of Mow-Less all contribute dark blue-green color, heat, drought, shade and insect tolerance ... naturally. Mow-Less has made inroads into areas that tall fescue has not traditionally been adapted. Is this the start of something big? We think it's the start of something small ... with a big savings in mowing.



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# GOLF COURSE NEWS

THE NEWSPAPER FOR THE GOLF COURSE INDUSTRY

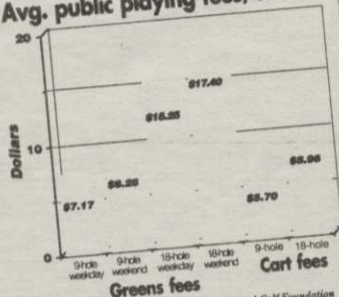
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## Hawaii council nixes impact fees

*By Peter Blais*  
The Honolulu City Council has unanimously overridden Mayor Frank Fasi's veto and adopted a golf course development policy that rejects the mayor's suggested \$100-million impact fees.

Instead the policy encourages developers to integrate the golf course project into the local community while setting strict social, economic and environmental requirements. Bill 129 establishes guidelines for judging among the numerous proposals submitted for review annually on the island of Oahu, where at least 40 courses are in preliminary planning stages.

But critics complain the ordinance still fails to address how many more courses should be allowed on the island or where they can be located. One of the primary areas of concern is near already crowded Kaneohe Bay on the northeast side of Oahu, where another 14 courses have been proposed and residents are concerned about the bay's water quality.

"The ordinance is rational and scientifically based," said Stuart Cohen of Environmental & Turf Services, a Wheaton, Md.-based firm that has done environmental risk assessments in Hawaii. "It takes the proposals, provides a rational basis for making decisions, and requires that good people are available to manage the turf."

Cohen, who testified at an August workshop concerning Bill 129, agreed that the number of courses and where they should be located are important issues that still need to be addressed on

Continued on page 34

## The Best of 1991

The annual *Golf Course News* survey votes are in. The winners are:

Architect:  
Tom Fazio  
story, page 27

Builder:  
Wadsworth  
story, page 27

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Landmark Land Co.  
story, page 45

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One of the most talked-about holes at architect Tom Fazio's Ocean Course at Pelican Hill Golf Club in Newport Beach, Calif., is the 13th. It features two small greens fronted by a large area of coastal scrub and sand. The Ocean Course opened in November. A second 18-hole venue at Pelican Hill — the Canyon Course — is slated for completion some time later. The project was developed by The Irvine Co. For more on Pelican Hill and other new golf courses, see pages 27-43.

Photo by John Connell

## Sherman Hollow dealt a blow by Vt. board

*By Peter Blais*  
The Vermont Environmental Board has denied the latest attempt to obtain a building permit for the Sherman Hollow Golf Course in Huntington.

But course developers, who have spent seven years and hundreds of thousands of dollars seeking approval for the multimillion-dollar resort under the state's strict Act 250 development

See related story on Squaw Creek, page 17.

law, are not giving up. They feel the board made "substantial mistakes" and are asking it to reverse its ruling, according to Sherman Hollow President Paul Truax.

"It's a step we had to take within 30 days of the board's decision," said Truax,

who submitted the appeal on the final day of the one-month deadline.

The board denied the latest reconsideration for a land-use permit — which included the developers' promise not to use chemical pesticides or fertilizers — because of problems regarding waste disposal, streams, water supplies and soil erosion.

Continued on page 12

## USGA puts rebuffed TRACS on hold

*By Peter Blais*  
The U.S. Golf Association Green Section has temporarily shelved plans for its new construction consulting service after receiving complaints from golf course architects and builders that it

represents competition and unnecessary oversight. Green Section Director Jim Snow still hopes to establish the program, but will delay its launch until some "unfortunate misunderstandings" are clarified.

Snow announced the introduction of Turf Renovation and Construction Services in mid-November.

Headed by Mid-Continent Section Director Jim Moore, TRACS is designed as a

Continued on page 39

TO: WILLIAM "TIM" HIERS  
JOHN'S ISLAND CLUB  
350 BEACH ROAD  
VERO BEACH, FL 32963

# The most important people in the golf course industry make our front page every month.



People like Tim Hiers, Golf Course Manager of the 54 hole private John's Island Club in Vero Beach, Florida.

Past President of the Florida Golf Course Superintendents Association, Tim received the organization's Distinguished Service Award in 1986 and is currently their Chairman of Government Relations. Tim is a seminar instructor for several organizations and is also a special consultant to the PGA.

Hiers likens *Golf Course News* to "a Reader's Digest of the golf course industry," with topics that are "interesting, well-written, and pertinent to golf and its environment."

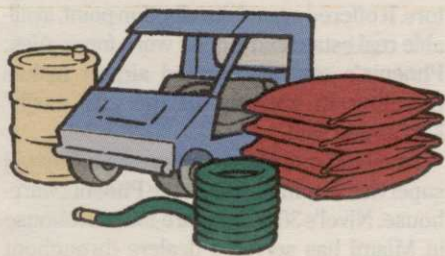
If you want to reach Tim and 22,000 others who are the most important people in the industry ... decision makers at nearly every course in America, call *Golf Course News* today.

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# GOLF COURSE NEWS

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## Briefs

**BUNTON NAMES S'EAST DISTRIBUTOR**

LOUISVILLE, Ky. — Vince Thigpen Distributing Co. of Tifton, Ga., has been appointed exclusive distributor of the Bunton Co.'s rotary commercial products for the Southeast region.

The area includes North and South Carolina, Georgia, Alabama and Florida.

Located within 300 miles of Atlanta, Ga.; Birmingham and Mobile, Ala.; and Jacksonville, Orlando and Tampa, Fla., Thigpen can provide one-day shipment by truck.

For more information, write Thigpen at P. O. Box 888, Tifton, Ga. 31793; 912-382-1396.

**PARKWAY ACQUIRES DEL TREK**

HOUSTON, Texas — Parkway Research of Houston has acquired the business operations of Del Tek, Inc.

Del Tek was most notable for its product Consan Triple Action 20. CTA-20 is an EPA-registered contact fungicide/algicide with approved turf labeling for Brown patch, pythium, leaf spot, root rot, fading out and more.

An additional feature of CTA-20 is that it is extremely safe. It is non-phytotoxic, biodegradable, non-flammable, and does not require special handling or storage.

**SANDOZ ADDS PEST EFFECTIVENESS**

DES PLAINES, Ill. — Sandoz Agro North America has announced the addition of two key pests, psyllids in California and green scale in Hawaii, to its Mavrik Aquaflow label.

Mavrik Aquaflow controls a broad spectrum of insects, including mites. Fully registered with the Environmental Protection Agency, it is an unrestricted material with a very low toxicity which does not harm birds, bees and other beneficial insects.

**NEW DISTRIBUTOR FOR THE ANDERSONS**

SHELBY, N.C. — Porter Brothers has been named an authorized distributor of The Andersons brand of fertilizer, announced C.M. "Chuck" Bolt, president of distribution for RSI Holdings, Inc.

Headquartered in Shelby, Porter Brothers, which is owned by RSI Holdings, Inc., is one of the nation's largest distributors of turf care and outdoor power equipment. The company sells to customers in North Carolina, South Carolina, and portions of Virginia, West Virginia and Tennessee.

**CATALANO JOINS RAIN BIRD**

GLENDORA, Calif. — Mike Catalano has accepted the position of customer technical support engineer for the Golf Division of Rain Bird Sales, Inc., according to Steve Christie, director of sales and marketing.

Catalano will be responsible for technical support of the golf product line and available to all customers.

Catalano has experience as product manager and as an independent irrigation consultant.

# Miles reorganizes U.S. sales force

## Former Mobay Specialty group doubles number of sales areas and reassigns key personnel

The Agriculture Division, Specialty Products of Miles Inc., formerly Mobay Specialty Products Group, is expanding and reorganizing its field sales organization.

Until recently, the former Mobay Specialty Products Group had two U.S. sales areas, North and South. The re-named organization's sales force is divided into four areas — Northeast, Southeast, Midwest and West.

"We feel these changes are necessary for the growth, maturity and support of our customers," said Miles Specialty Products Manager Allen Haws.

Cecil Childers, formerly area manager for the South, now serves as pest control product marketing manager, remaining at the home office in Kansas City.

Steve Chaney, formerly a field representative in Champaign, Ill., relocates to Kansas City to assume duties as turf and ornamental

product marketing manager.

Rich Burns, formerly area manager for the North, will relocate to Atlanta, Ga., to serve as manager for the Southeast region. The field representatives in the Southeast are Greg Pagano, Ph.D of New Port Richey, Fla.; Trey Turner of Ocala, Fla.; Jon Stewart of Greensboro, N.C.; Lee Bloomcamp of Miami; Dick Nash, Ph.D of Cordova, Tenn.; and Jack Hoxie of Snellville, Ga.

Ken Linscott, former district manager in Florida for Mobay Agricultural Chemicals Division, will relocate to Dallas to act as area manager for the West. The field representatives in the West are Judy Wanner of Arlington, Texas; Randall Davis of Austin, Texas; Ben Oller of Fresno, Calif.; and Paul Brown of Lincoln, Calif.

Dan Meek, formerly turf and ornamental product manager, will remain in the Kansas City area to serve as Midwest area manager. The field representatives in the Midwest include John Spaulding of Liberty, Mo.; and Richard Skorepa of Dublin, Ohio. Two additional field representatives will be added in



Steve Chaney

this area.

Hal Paul, formerly pest control product manager, relocates to Philadelphia, to serve as area manager for the Northeast. The field representatives in the Northeast are Greg Ellis of Greenwich, R.I.;

Bob Hughes of Wayne, Pa.; and Mike Ruizzo, Ph.D. of Sparks, Md. An additional field representative will be named shortly.

Rick Robb, formerly seed treatment product manager for the Agricultural Chemicals Division, now serves as marketing services manager, a new position for the group.

Jim Schell, regional manager for Mobay's Central region, will soon relocate to headquarters in Kansas City to serve as national accounts and governmental sales manager.

Brad Filson, formerly governmental sales manager, now serves as product packaging manager.

# Pennington completing work on new plants

Pennington Enterprises, Inc. is completing construction of two new plants for its Gro Tec, Inc. subsidiary and one new plant for its Earth Pak, Inc. subsidiary.

Officials say one of the new plants for the Gro Tec subsidiary will be the most modern and one of the most automated lawn, garden, and golf course fertilizer plants in the nation. The second plant for the Gro Tec subsidiary will be the lawn and garden chemicals plant. This plant will be 2-1/2 times larger than the original Gro Tec plant, which was destroyed by fire in April 1991.

Both plants were built on a 45-acre site in Eatonton, Ga., using the latest EPA guidelines for pollution control. Two dry lakes will retain spill or run-off during a fire or other natural disaster. All buildings at the site will be diked for

further protection from run-off. Chemical storage will be limited to fireproof concrete bunker-type storage facilities. Wiring throughout the plants will be explosive proof type. Each plant will have a high deluge sprinkler system.

The lawn and garden chemical plant will use pharmaceutical technology and equipment rather than agricultural technology and equipment in manufacturing lawn and garden chemicals. This will give Gro Tec a finer degree of control.

Pennington said Gro Tec, through its affiliation with Bio-Plus, Inc., will be the only lawn and garden chemical manufacturer in the nation who is basic in the carrier manufacturing in addition to the impregnation of chemicals into the carrier. A patent was issued to Bio-Plus last Aug. 20, on its process for the

manufacture of carriers for insecticides from peanut hulls.

The Gro Tec plant will have a 33.3-percent capacity increase over the original plant destroyed in the fire.

Located on the Gro Tec site will be a new quality-control lab staffed by two trained chemists.

The new facility for the Earth Pak, Inc. subsidiary will be located on Pennington Road in Shady Dale, Ga., 12 miles from Pennington's corporate headquarters in Madison. The Earth Pak plant will be an 80-acre facility for basic ingredient manufacturing, processing, and packaging of pine bark nuggets and mulch, Cypress mulch, composted cow manure, peat moss, potting soils, play sand, and decorative rocks.

## Hood honored by ASIC chapter

San Diego - Larry Hood, regional sales manager for Hydro-Scape Products, Inc., was selected as the 1991 Associate Member of the Year by the Southern California Chapter of the American Society of Irrigation Consultants, according to Dave Pagano, irrigation designer with Sasaki Associates. The award was presented at the recent ASIC conference in Hawaii.

"Larry has organized the ASIC annual tennis tournament since 1985 and he's always been there for the organization, doing whatever was needed," said Pagano. "The award represents our thanks to Larry for not only his personal time but his dedication to ASIC that has been so valuable over the years."

Hood is a resident of Orange and works from the El Toro branch of Hydro-Scape Products.



Larry Hood, right, of Hydro-Scape Products receives award from Dave Pagano of ASIC

# Seed Research of Ore. adds to technical committee

CORVALLIS, Ore. — Seed Research of Oregon, Inc. has added six members to its technical advisory committee.

They are Bill Sessums of Pinewild Country Club of Pinehurst, N.C.; Harold Schuemann of Crystal Springs Country Club in Grand

Rapids, Mich.; David Nickson of Peninsula Country Club in Frankston, VIC, Australia; Peter Jones of International Resort Holdings, Collingtree Park in Northampton, England; Susumu Nakano of Koraku Golf Course in Okayama, Japan; and John Zoller

of the city of Portland.

This 19-member committee of worldwide superintendents advises on the specific needs of golf courses regarding turfgrass species, varieties, blends and mixtures, and evaluates new Seed Research products.

## Toro appoints new managers



Teofilo Mendez Lynch

The Toro Co. Irrigation Division has appointed Teofilo Mendez Lynch area manager for Mexico, Central and South America.

Mendez Lynch is a native of Buenos Aires, Argentina, where he will be stationed, and holds a bachelor's degree in agronomy/agricultural engineering from the University of Buenos Aires.

Over the past three years, he operated his own landscape-contracting business in Southern California while attending California Polytechnic University at Pomona, spe-



Delancey Spain

cializing in advanced turfgrass management courses.

Meanwhile, Toro has appointed Delancey Spain to the position of key accounts manager in Florida's Orlando/Jacksonville/Tallahassee area. She will focus on resorts, theme parks and municipal projects, and will oversee the specifier effort in Florida.

Spain has been with Toro for more than five years and is leading her position as the Irrigation Division's district sales and specification manager

## Nivel Parts opens Phoenix warehouse

PHOENIX, Ariz. — Nivel Parts, a golf cart parts distributor based in Miami, has opened an additional warehouse here to service dealers west of the Mississippi River.

The 5,000-square-foot warehouse at 3037 N. 31st Ave. will enable Nivel to distribute parts faster to the Western United States, which is the company's biggest market, said owner Pat McGrogan.

"We selected Phoenix as the site of our

second warehouse because of several factors. It offered a good distribution point, available real estate and a good work force. Also, Phoenix's centrally located airport makes traveling in and out of the city easy," McGrogan said.

Nivel General Manager Forest McCoy will supervise six employees at the Phoenix warehouse. Nivel's 30,000-square-foot warehouse in Miami has serviced dealers throughout the nation for 20 years.

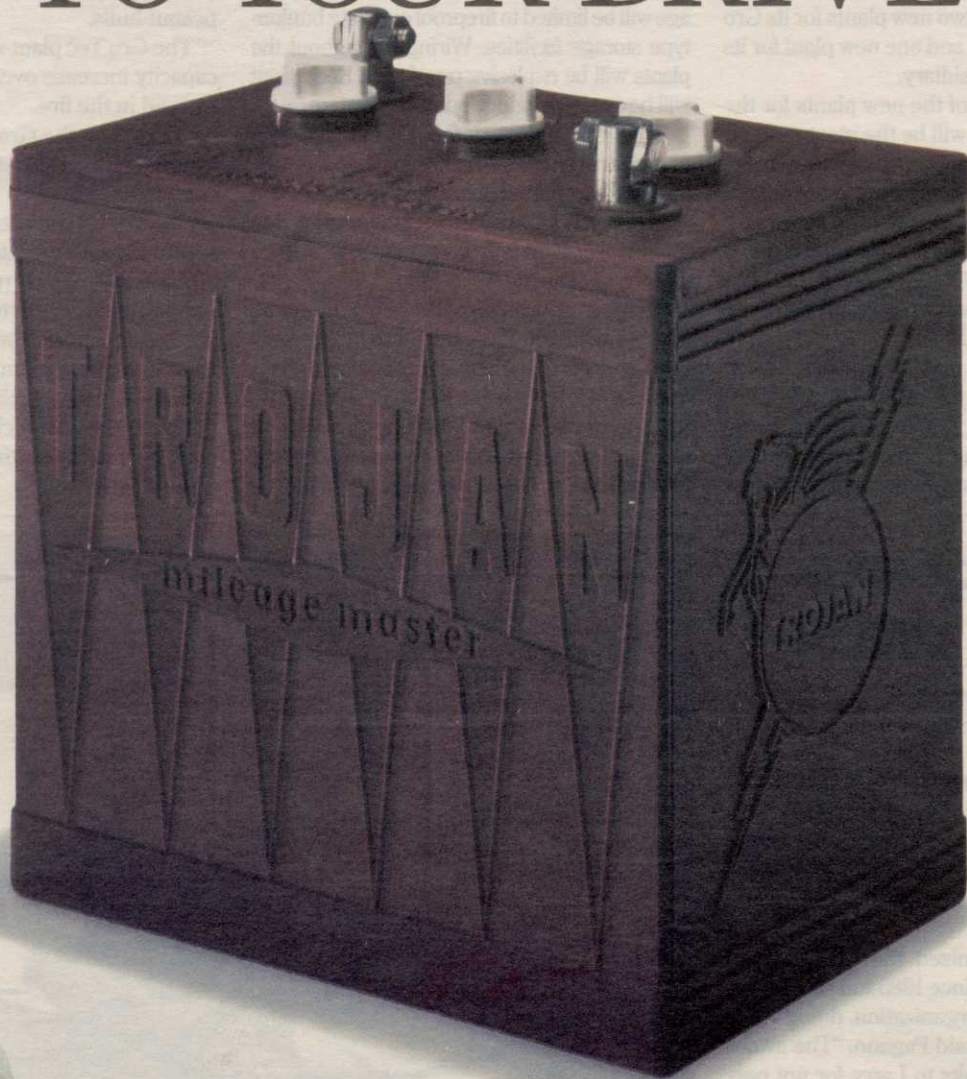
## ASPA to award research grants in February

ROLLING MEADOWS, Ill. — The American Sod Producers Association, which has earmarked \$30,000 for research funding, will determine the grant winner or winners at the

1992 mid-winter conference, Feb. 5-7 at Las Vegas, Nev.

Proposals emphasizing environmental concerns will receive priority.

# HOW TO ADD 1,440,000 YARDS TO YOUR DRIVE.



Easy. Just get the golf car battery that drives longer. Get ours. Get Trojan. We conducted a little test. Trojan vs. some other big names on the tour.

Guess what? Based on the new Battery Council International testing procedures, based on a par 72 course, the Trojan played 200 more rounds than the challenger. (That explains the 1,440,000-yard drive at the top of the page.)

Trojan's T-105 was 225 cycles better than the next leading brand - 635 to 410 - in this BCI speeded test.

225 more cycles x 2 rounds per cycle x \$10 per round car rental = \$4500 more revenue per set before they need replacing. (Now, multiply that times your number of cars.)

All this is amazing. But not surprising. Because Trojan has an exclusive Multi-Rib separator: Better electrolyte

distribution. Less negative plate expansion. Lower end of charge current uses far less water - lower recharging bills. And a glassmat that's twice as thick reduces positive shedding - boosts life.

One last thing. Trojan's been around since 1925, since Bobby Jones was tearing them up at Augusta. Not far, in fact, from our newest manufacturing facility in Lithonia, GA.

If you want to be money ahead, call Trojan. In California, (213) 946-8381. Outside California, (800) 423-6569.



**Trojan**

The Better Battery

## Jacobsen streamlines parts organization

RACINE, Wis. — To better serve customers, Jacobsen has streamlined its parts organization. The company has consolidated its order entry, inventory and warehousing operations into a central department here.

Vice President of Marketing Eric Smitsdorff said the change strengthens Jacobsen's ability to provide responsive, world-class parts service.

Smitsdorff said the new Parts and Accessories Supply department will be directed by Jerry Betker, former manager of Jacobsen's service parts department.

The recent conversion to a multimillion-dollar, company-wide computer system will further improve parts service. The system will give Jacobsen distributors direct access to parts order and delivery information.

## ASPA selects Garey as honorary member

ROLLING HILLS, Ill. — Robert W. Garey has been selected the American Sod Producers Association's 12th honorary member.

The former ASPA executive director will be inducted at the group's 25th summer convention and field days, July 23-25 in Chicago.

The owner of Garey Management Organization in Hastings, Neb., Garey was ASPA chief of staff from 1973 to 1983.

During his tenure, Garey saw the Internal Revenue Service rule favorably on the sod/soil depletion issue, establishment of federal inventory tax exemptions, initiation of "Turf News" magazine and "Management Letter," and the first international summer convention.

## Kalo signs on new Midwest sales reps

KANSAS CITY, Mo. — Kalo, Inc. of Overland Park has announced the appointments of Clifford Sales & Marketing Co. of St. Louis, and W. Greenfield Co. of Kalamazoo, Mich., as sales representatives for the Kalo product line.

Included in the product line will be Hydro-Wet Turf Wetting Agent and Specialty Products sold to the turf and horticultural markets.

Chuck Champion, sales manager for Kalo, said Nick Clifford and Greenfield will cover the states of Minnesota, Wisconsin, Iowa, Illinois, Indiana, Michigan, Kentucky, Ohio and Missouri.



## Goldsmith selected new Cushman sales administration manager

Norm Goldsmith has been appointed sales administration manager at Cushman, according to an announcement by Doug McCormick, vice president of marketing for Ransomes America Corp.

Goldsmith will be responsible for administration of dealer sales order processing at Cushman, which will include expediting requests for factory customized vehicles.

He will also be involved in sales forecasting.

A Kansas native, Goldsmith earned a degree in business administration at Marymount College in Salina, Kan.

Goldsmith was a field manager for Deere and Co. for eight years and spent three years as the general manager of a Deere dealership.

Cushman is a subsidiary of Ransomes America Corp.



Norm Goldsmith

## White named Lesco director

CLEVELAND — Charles B. "Bud" White has joined Lesco, Inc., as director of golf development, it was announced by Philip R. Gardiner, executive vice president of sales.

White will work with golf course owners, developers, builders, designers and architects in representing Lesco's product and equipment lines and technical services.

Prior to joining Lesco, White operated Total Turf Services, Inc., specializing in professional turfgrass consultation. He is a

long-time agronomist with the United States Golf Association's Green Section and, prior to founding his own company, was director of golf and landscape operations at the Harbor Club in Greensboro, Ga.

He previously served with Lesco as sales manager of fertilizer seed specialists.

Lesco's new director of golf development has a bachelor's degree in plant and soil science from Tennessee Technological University and a master's degree in horticulture from Clemson University.

## Jacklin Seed Co. adds a Picasso

POST FALLS, Idaho — Gustavo Picasso has joined Jacklin Seed Co.'s International Marketing Department at company headquarters here.

A graduate of the University of Buenos Aires in Argentina, Picasso completed a six-year program as an agronomy engineer. In 1989, he spent five months training with Jacklin's, gaining experience in warehouse operations, research, production and marketing.

Prior to joining Jacklin, Picasso spent more than six years with Jose R. Picasso, S.A., a turf and forage grass production and marketing company in Argentina. He concentrated on warehouse management, computer programming, production and marketing.

Picasso will work with the international market, specializing in export sales of turf and forage grass to Central and South American countries, southern Europe, the Mediterranean and Middle Eastern countries.

## Jacobsen chooses marketing head

RACINE, Wis. — Jacobsen Division of Textron has appointed F.H. Smitsdorff vice president of marketing. He is responsible for the company's product management, market planning, advertising, distribution and after market activities.

Smitsdorff joins Jacobsen after holding senior marketing positions with the Oldenburg Group, Inc., of Milwaukee, Wis. Previously, he served as vice president of international marketing for Garden Way, Inc. in Troy, N.Y., and vice president of marketing services for Bolens Corp. in Port Washington, Wis.

A graduate of the University of Wisconsin-Madison, Smitsdorff served as an officer in the U.S. Navy.

## SISIS opens new West Coast office

SISIS, Inc., of Jacksonville, Fla., has opened a new office in Solvang, Calif.

Scott and Nancy Buley will assist with sales and inquiries regarding the SISIS range of golf and sports turf maintenance machinery. They can be contacted on 805-686-2730.

GOLF COURSE NEWS



# Oregon Fine Fescue.

If you give it a foot, it won't take a yard.

Sure, we'd like to see 100% fine fescue lawns, parks and golf course roughs, but some people still prefer to add the rapid establishment of perennial ryegrass and the dark, luxurious appearance of Kentucky bluegrass. If you are one of them, we encourage you to include shade and drought tolerant fine fescue in at least 1/3 of the mixture.

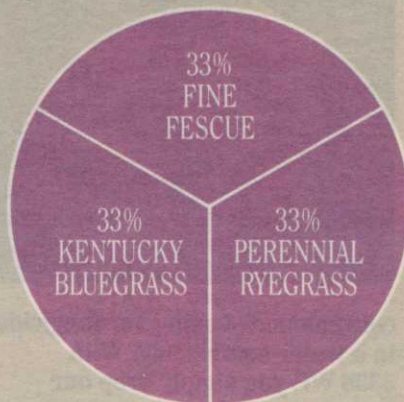
### Fine Fescue Mixes Well

Fine fescue's color and texture is agreeable with rye and blue, and won't crowd out its companions. If you give it a foothold, it won't take over a yard, so to speak.

### Fine Fescue is a Survivor

You'll find that fine fescue may be the only turfgrass to grow in hot, dry, undernourished or deeply shaded areas. It could have just the stuff to carry your turf through tough times.

Now, if you still wish to plant 100% fine fescue, it's O.K. with us. Just call your seed dealer today, and specify *Oregon grown* fine fescue, for sure!



Percentage by weight



**Oregon  
Fine Fescue  
Commission**

866 Lancaster Drive SE Salem, Oregon 97301 • 503/585-1157 • Turf managers: call or write for our series of tech sheets and colorful brochure.

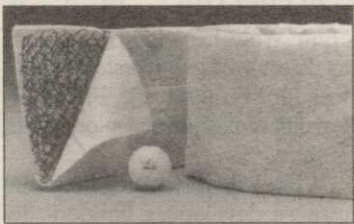
CIRCLE #168/GCSAA BOOTH #3430

## Akzo unveils new landscape water drainage system

ASHEVILLE, N.C. — Akzo Industrial Systems Co. has introduced Enkaturf Drain, a landscape drainage system designed to eliminate standing water from areas such as golf courses, sports fields, parking areas and lawns.

Akzo has also unveiled Fortrac Geogrids, interwoven polyester yarns covered by a protective layer of PVC, and Enkamat "S," a reinforced erosion control matting.

Enkaturf Drain is a three-dimensional nylon matting wrapped in a porous filter fabric that forms a high-capacity drainage duct. The



Enkaturf Drain matting

one-piece prefabricated system, measuring 6 inches by 0.4 inches, requires only a narrow trench to install. The filter fabric keeps soil particles out of the drainage medium. After passing through the fabric, water flows within the open

core of nylon matting Enkaturf Drain is considerably less expensive to install than traditional drainage designs using sand, aggregate, gravel or pipe as a drainage medium.

Fortrac Geogrids are designed to reinforce earth-fill structures such as slopes, retaining walls, landslide repairs, earth dams and roads. They form an interlocking bond between fill and grid to achieve greater strength and cohesion. They are available in a variety of strengths and mesh sizes to suit a wide range of appli-

cations.

Enkamat "S" combines Enkamat, a three-dimensional nylon matting, with a PVC-coated high tenacity polyester geogrid. Enkamat "S" is ideal for erosion-control projects where high-tensile strength is required. The high-tensile strength of the reinforced grip layer matting, up to 7,545 lbs./ft., will withstand the stress of fill materials like gunite, gravel and soil.

Contact Akzo Industrial Systems Co., P.O. Box 7249, Asheville, N.C. 28802; 704-665-5050.

CIRCLE #325

## Echo lightweight edger has many extra features

LAKE ZURICK, Ill. — Echo Inc. has introduced its new lightweight, hand-held Power Edger PE-2400.

The edger's newly added features include a larger, more powerful 23.6 cc engine and newly designed cutter head for improved performance. The unit is lighter and more portable than conventional walk-behind models.

Ideal for commercial application, the PE-2400 has an 8-inch blade for deep cutting applications and a pivoting mechanism for easy depth setting, making the tool especially effective for lawn and flowerbed edge maintenance.

Its large, steel wheel with ball bearings and solid rubber thread maintains the PE-2400's consistent depth over rough terrain.

The 13-pound unit is equipped with a 23.6 cc engine, Pro Fire Electronic Ignition and purge pump-equipped carburetor for faster, easier starts.

Contact Echo Inc., P.O. Box 775, McHenry, Ill. 60051-0775; 815-363-0909.

CIRCLE #326

## Hopper designed for professionals

Model 76-22 is a new addition to the Spyker Spreader line of big box built plastic hoppers designed to survive professional use and abuse.

Thirteen-inch by five-inch turf tread tires ensure easy operation and good flotation under most operating conditions — even with a full hopper.

A see-through cover ensures protection from rain, wind and accidental dumping damage.

The Accuway R product metering and spread placement system ensures exact spread rates with exact spread pattern placement — dead to the center of the spreader.

Tractor hitch, pull behind spreaders have the same features.

Spreader are shipped set up - ready for handle attachment.

Contact Spyker Spreader Works, P.O. Drawer 210, N. Manchester, Ind. 46962; 219-982-8105.

CIRCLE #327

## Super absorbent polymer available

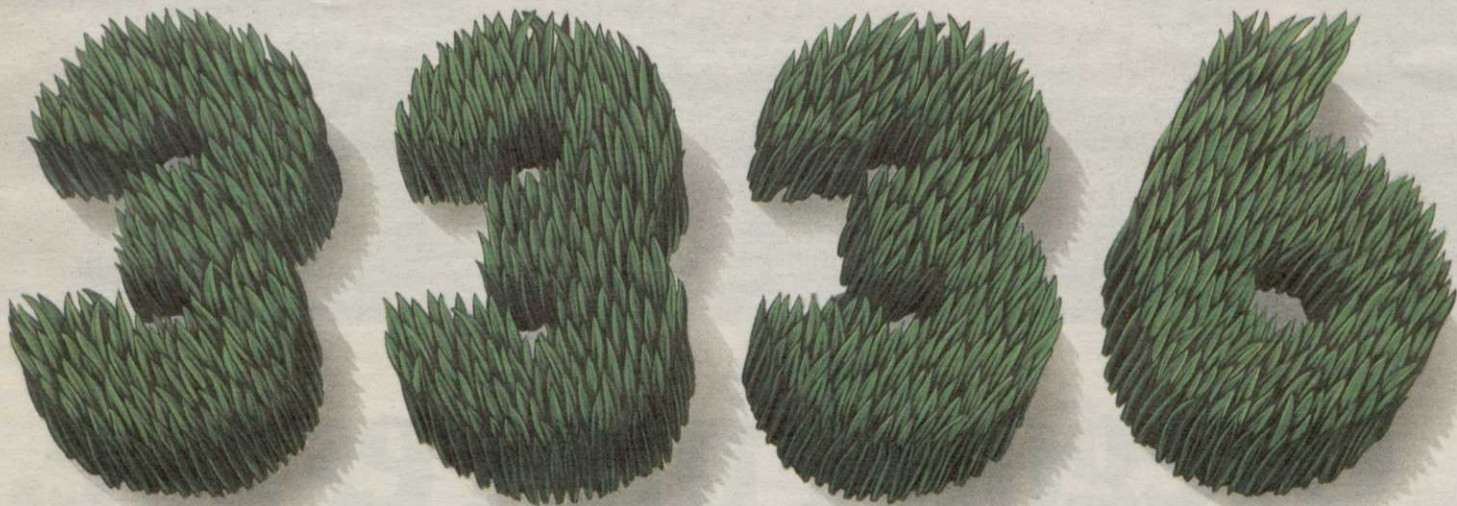
PHOENIX, Ariz. — A new polymer is now available and manufactured by Dow Chemical USA and distributed by Aqua Gel International, Inc.

This super absorbent polymer absorbs 1,000 times its weight in water. It reduces water consumption by 40 to 50 percent on turf grass. Predictable results based on type of soil and water and application rates of polymer. Application and material will pay for themselves in water savings within the first year, proven by recent testing with documented results.

For information call 602-569-1133.

CIRCLE #328

# From Tees To Fairways To Greens, We've Got Your Number



## A Broad Spectrum Systemic, Thiophanate-Methyl Fungicide

In 1991 many turf professionals turned to Cleary's 3336™ as an alternative for Benomyl. Before long, our new customers discovered that Cleary's 3336, a Benzimidazole systemic fungicide, effectively controls a broad spectrum of major turf diseases. In fact, many state universities recommend 3336 as an ideal substitute for Benomyl.

Even more importantly, these new customers soon realized what other turf experts have known for more than 50 years — that no supplier is more reliable than W.A. Cleary Chemical Corporation for quality and performance. And dependability counts when you're protecting your turf investment.

Once turf professionals tried 3336, they discovered the



convenience of using our fungicide in a water soluble bag. With 3336 WP, you simply drop our pre-measured bags in water — no mess, no applicator exposure and no container disposal. In addition,

our 3336 is available in a flowable liquid suspension which offers a fine particle size for uniform distribution and availability to turf.

If you would like to receive more information on Cleary's 3336 and make 1992 *your* best turf season yet, please contact your local turf chemical distributor or contact:

# 3336<sup>WP</sup>™

**W.A. Cleary Chemical**  
CORPORATION

1049 Somerset Street, P.O. Box 10  
Somerset, NJ 08875-0010 908-247-8000

1-800-524-1662 East of the Mississippi  
1-800-524-1663 West of the Mississippi and FL

3336 is a trademark of the W.A. Cleary Chemical Corporation

CIRCLE #169/GCSAA BOOTH #3328-3332

## Columbia ParCar introduces new vehicle

DEERFIELD, Wis. — Columbia ParCar has introduced its new ParCar Eagle golf car. Available in gas or electric models, the Eagle offers maximum performance and safety.

Ergonomics have been a priority in designing all features found in the Eagle. An exclusive tilt-to-open clam shell rear body is a time-saver for service personnel. The clam shell was specifically designed to expose the entire drivetrain and undercarriage for ease of scheduled maintenance and cleaning. The Eagle's bag rack holds clubs vertically for

excellent visibility and provides low bagwell height for ease of loading and removal of clubs. The Eagle has a comfortable bench seat with optional bucket seats and rear seat kit.

A new 2-cycle gasoline engines have been redesigned for higher compression ratios and improved fuel/air combustion, which generates 15 percent more horsepower with greater fuel economy. The new combustion chamber, in conjunction with new CleanAir Plus engine lubricant eliminates smoke, spark plug fouling and dramatically ex-

tends the engine life. The electric powered Eagle features Columbia ParCar's Soft Start system which eliminates jerky starts and damaged turf.

You can customize the Eagle with any of ParCar's standard options. The company now offers an all-weather cab for the Eagle. Designed for complete driver visibility and flow-through ventilation, the cab is both functional and comfortable.

Contact Columbia ParCar, P.O. Box One, One Golf Car Road, Deerfield, Wis. 53531; 608-764-5474.

CIRCLE #329



Columbia ParCar Eagle

## Program eases maintenance

Lake Forest, Ill. — The Superintendents Compliance/Management System by Environmental Compliance Systems Inc. makes optimum use of "one-time" entered data and has the ability to "transform" that data to environmental-type reporting.

Superintendents can build spray plans and create work orders with pop-up menus of employees and chemical lists, automatically adjust inventories, track equipment and personnel. Full scheduling, tree inventory, financial reporting and much more are available in the program.

The SCMS program generates an extensive HAZCOM program unique to the facility. Operators can create application reports, Tier II reporting, full training records, and more.

The SCMS program includes modern software to allow communication with professional services. Optional features include up to the hour weather maps from WeatherBank Inc. and architectural drawings of your course on screen and printable.

For more information call 800-472-8882.

CIRCLE #330

## Vacuum cleans airborne powder

MALVERN, Pa. — Nilfisk of America's portable GS 81 vacuum cleaner is being used by ground managers for safe and effective cleanup of fine powders and dusts that fill the air during mixing, storage and spreading of pesticides.

The Nilfisk GS 81, equipped with a special HEPA (high efficiency particulate air) filter, is capable of capturing 99.97 percent of particles down to 0.3 microns in size. To put a micron in perspective, a human hair has a diameter of 80 to 100 microns.

The GS 81 can also be equipped with polyliners so that spilled powder can be disposed of or re-used. In addition to collecting spilled powder, the vacuum cleaner should be used to clean loose powder which often attaches itself to workers' clothing.

Contact Nilfisk of America, Inc., 300 Technology Drive, Malvern, Pa. 19355; 800-NIL-FISK.

CIRCLE #331

# The

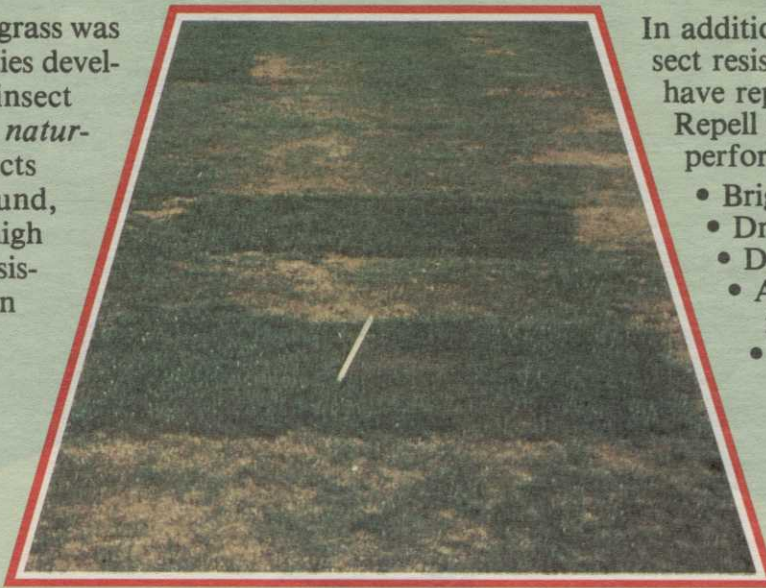
## PERENNIAL RYEGRASS

# repell

## Difference...

## No Insect Damage... Naturally

Repell Perennial Ryegrass was one of the first varieties developed especially for insect resistance. Repell is *naturally* resistant to insects that feed above ground, because it contains high levels of an insect-resistant fungus called an 'endophyte.' So a Repell turf doesn't need costly insecticides to control insects like sod webworms, chinch bugs, billbugs or cutworms.



The dark green turf plots contain high levels of endophytes and thus have not been damaged by insect infestation.

In addition to its natural insect resistance, national tests have repeatedly proven that Repell is an all-round top-performing ryegrass:

- Bright, dark green color
  - Drought tolerance
  - Dense, persistent growth
  - Attractive low-growing turf
  - Adapted to conditions ranging from full sun to moderate shade
- Try Repell — the perennial ryegrass with natural insect resistance.



### Lofts Seed Inc.

World's largest marketer of turfgrass seed

Bound Brook, NJ 08805  
(201) 356-8700 • (800) 526-3890 • (800) 624-1474 (NJ)

Lofts/New England  
Arlington, MA  
(617) 648-7550

Lofts/Maryland  
Beltsville, MD  
(800) 732-3332  
(800) 732-7773 (MD)

Lofts/Great Western  
Albany, OR  
(503) 928-3100 or  
(800) 547-4063

Lofts/Ohio  
Wilmington, OH  
(800) 328-1127  
(513) 382-1127

Sunbelt Seeds, Inc.  
Norcross, GA  
(404) 448-9932 or  
(800) 522-7333

To locate the Lofts' distributor nearest you, call  
(800) 526-3890 (Eastern U.S.) • (800) 547-4063 (Western U.S.)

CIRCLE #170/GCSAA BOOTH #2610

## New blender hits the turf

GRAND FORKS, N.D. — Pioneer Peat, Inc.'s Dakota Blender Model 2200 is now available with fertilizer applicators.

Contractors can mix fertilize with sand and peat in one operation.

Model 2200 is specifically designed for golf course contractors. It has an output of approximately 200 tons per hour. It is one-third the size of other commercial blenders and can be towed easily by a pickup truck. It is PTO-driven, with 100-percent mechanical drive, and has

a built-in stacking conveyor.

Contact Pioneer Peat, Inc., P.O. Box 5438, Grand Forks, N.D. 58206; 701-746-4300.

CIRCLE NO. 300

## Rain Bird improves hydraulic control systems

Glendora, Ca. — Rain Bird has introduced the 77 D-Series, Part Circle Rotor, featuring the latest in pressure-regulated, hydraulic and stopomatic valve in head control.

It has also unveiled the MMP-SL, Multi-Manual Panel, which allows

the superintendent to syringe any station or combination of stations simultaneously, while providing simple and flexible multi-station operation from the field.

The Part Circle Rotor is compatible with the pressure regulated (DR) and low pressure regulated (DL) models, providing individual head control, while the built in automatic pressure regulating module, constantly compensates for main-line pressure fluctuations. The hydraulic (DH) model features a normally open diaphragm valve for individual control on hydraulic control systems without the 24-volt requirements.

The 77 rotor, has a full 1-1/2-inch

inlet to accommodate larger swing joints and minimize unwanted pressure loss through fittings. With an adjustable arc ranging from 20 to 340 degrees, it uses a low-angle trajectory of 23 degrees, minimizing wind drift and the resulting water waste.

The MMP-SL's settings range from automatic to programmed operation.

The Multi-Manual Panel is compatible with the SBM-1230 (MAXI field satellite) and LM-1230 (LinksMaster Field Satellite). This unit may be also be adapted for use with other Rain Bird RC-Series electromechanical controllers, both hydraulic and electric versions. The

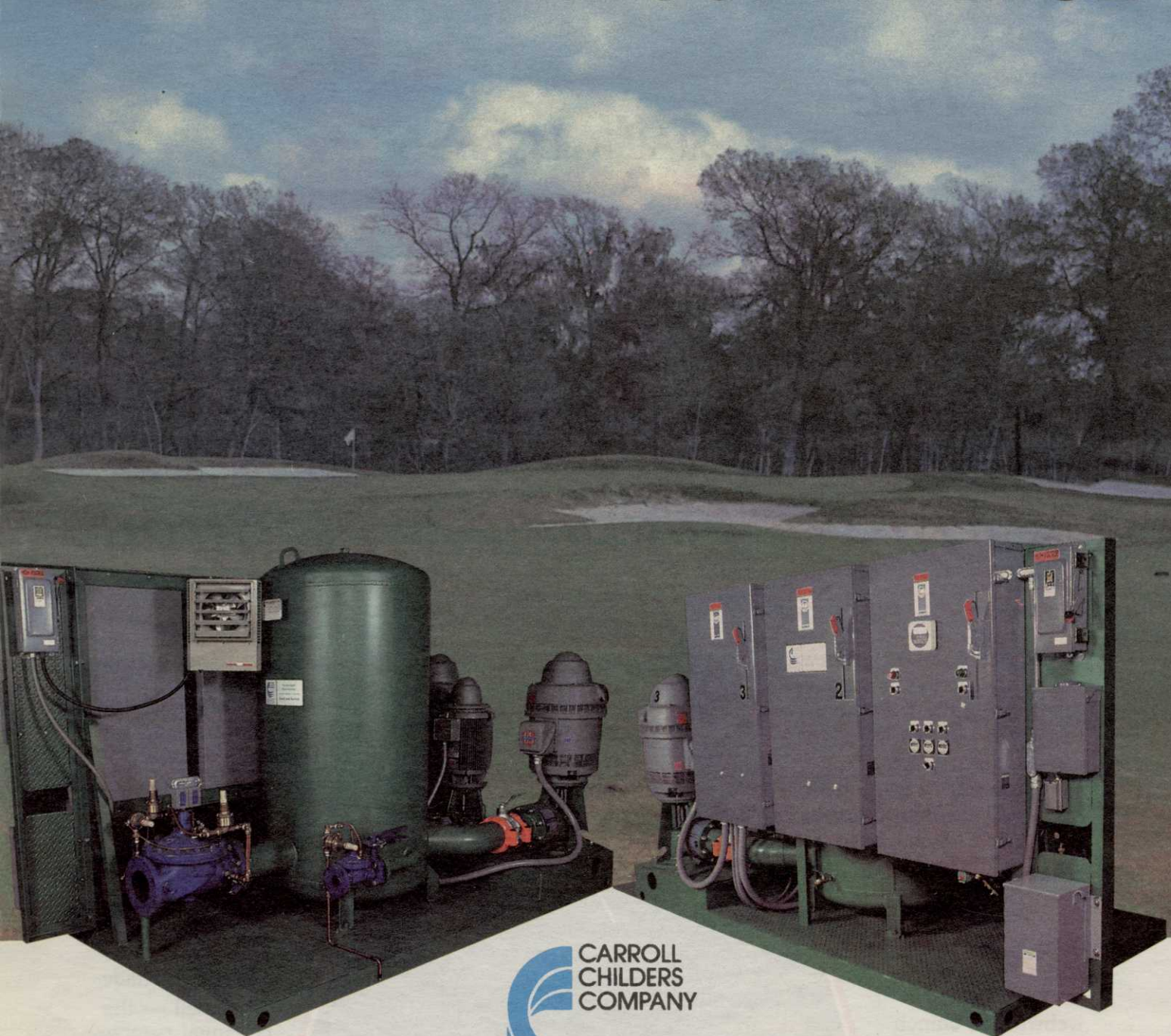


77 D-series part circle rotor

product is easily installed in either the deep drawn or stainless steel pedestal.

CIRCLE NO. 301

# PUMPING WITH CONFIDENCE



It's the pumping confidence that comes from providing quality pumping stations to satisfied customers for over 30 years. The evaluation of a proven design philosophy provides you with the most cost effective pumping station. The Childers design includes a pressure relief valve that protects the pumps from excess heat and low flow conditions. The longevity of our pumps are enhanced even further by assembling them with 416 stainless steel shafts and straightening them to stricter tolerances than the original manufacturer. We are dedicated to providing you with pumping confidence.

For more information call: 1-800-231-4012

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(713) 991-7501 FAX: (713) 991-5586

CIRCLE #171/GCSAA BOOTH #1236

## Columbia's new utility vehicle

Columbia ParCar has introduced the Utilitruck and all-weather Cab. The Columbia Utilitruck is built with a strict mission to improve productivity, stand up to industrial use and reduce operating costs.

The Utilitruck has an extended wheel base centered under the payload platform for optimum safety and stability. With the narrowest body in its class and its 18-foot turning circle, the Utilitruck works in smaller areas, yet features a cargo capacity of 12.5 cubic feet.

The 2-cycle gasoline engines have been redesigned for higher compression ratios and improved fuel/air combustion, which generates 15 percent more horsepower with greater fuel economy. The new combustion chamber, in conjunction with new CleanAir Plus engine lubricant eliminates smoke, spark plug fouling and dramatically extends engine life.

Driver visibility, ventilation and weather protection top the list of



Utilitruck and all-weather cab

features for the new all-weather cab. It is color-impregnated and made of impact-resistant materials that will not dent, rust or crack. A light colored UV stabilized cab roof incorporates the RainDrain suntop. Narrow steel pillars and large windows provide driver protection and visibility.

An exclusive feature of the Utilitruck cab is its pop-open windshield and rear vents that combine for true flow-through ventilation. Cab options include front windshield wipers, interior dome light, automotive rearview mirror and easily removable, lightweight doors with sliding or stationary windows.

Utilitrucks are available with steel or wood sides and tailgate, standard or extended flatbed, and manual or hydraulic dump bed.

CIRCLE NO. 302

## Sprinkler offers better irrigation

FRESNO, Calif. — Weather Tec Corp. has unveiled the new ATR-30, "all-terrain roller" base for sprinklers.

This all-metal base is the first in the industry to be manufactured so that the two independent 14-inch rollers articulate at their connecting points on the frame. This unique design allows the base to conform to slopes, peaks and valleys and maintain the sprinkler in a more level position.

Sprinklers operating in the level position provide a better and more efficient irrigation pattern. Additionally, the 30-inch overall width ends the problems of crawling or tipping when used with large sprinklers.

The Weather-Tec ATR-30 uses aluminum rollers, powder-coated metal frame and stainless steel nuts and bolts to resist rust and corrosion. Both the hose inlet and the sprinkler connection are 1 inch to accommodate the big jobs. The ATR-30 is a heavy-duty base that is made for use on golf courses, parks, schools and other large turf projects.

Contact Weather Tec, 5645 East Clinton Ave., Fresno, Calif. 93727; 209-291-5555.

CIRCLE NO. 303

## Powered hydro flexes its muscle

LOUISVILLE, Ky. — The Bunton Co. is introducing a new 61-inch Hydrostatic mower with an 18-horsepower Briggs & Stratton overhead Twin Vanguard engine that provides more power to tackle increased acreage.

Also new on the larger, higher-powered hydro is an increased wheel size for added stability, traction and floatation.

One of the most outstanding features of Bunton's Hydrostat is the fast, efficient way it can adapt to the work at hand. The unit is loaded with premium hydraulics, has a zero turning radius, instant forward and reverse, as well as an infinite variable speed adjustment. This allows for maximum maneuverability on hillsides, and for trimming and cutting.

The finger-tipped levers at the handle grips provide easy and convenient transitions to forward, reverse and power turning. Also included are adjustable speed controls that allow the operator to set the speed and know it will remain steady.

With a maximum speed of 6.5 miles per hour in forward and 1.5 mph in reverse, this mower delivers a fast, clean cut in the shortest amount of time. It also has ergonomically designed controls, reducing operator fatigue.

The Bunton Hydrostatic mower is also available in 36-inch, 48-inch or 52-inch widths and offers a 1-inch to 4-inch cutting height.

Contact a local dealer or call Bunton at 800-333-2971. In Kentucky call 800-292-2971.

CIRCLE NO. 304

## Tough dwarf turf has tolerance

HUBBARD, Ore. — Tomahawk Dwarf Turf-Type Tall Fescue has been introduced by Turf-Seed, Inc.

Tomahawk was developed at the Pure Seed Testing Inc. Research Facility by Dr. Bill Meyer and Crystal Rose Fricker. Tested under the experimental code 5DX, Tomahawk forms a dwarf, dark green dense turf with the advantages of improved brown patch, leaf spot and crown and stem rust resistance.

"Tomahawk is widely adapted, with improved heat and drought tolerance," says Tom Stanley, sales and marketing director for Turf-

Seed, Inc. "Tomahawk has a dwarf growth habit, yet is aggressive enough to compete with weeds and other grasses for establishment. Tomahawk forms a dark, dense turf that will stand alone in home lawns, parks, athletic fields and golf course roughs, or blend with other dwarf tall fescues".

Tomahawk performs well in high traffic and shade areas, and is included in the new maintenance-saving Mow-Less Dwarf Tall Fescue Blend.

Tomahawk will be available from Turf-Seed dealers this fall. Contact Tom Stanley or Jim Enyart at 1-800-247-6910 for a technical bulletin.

CIRCLE NO. 305

## Aerifying turfgrass without disturbing play

Two models of the Turf-Tec Verti-Slicer are now available for aerifying golf courses without materially disturbing play.

The three-foot-wide model is an attachment for the Verti-Groove machine. The new model is six feet wide and is tractor mounted using a three-point lift.

Specially designed to open turf by slicing five inches deep, no soil is removed, but deep cuts in the turf allow air and water to penetrate down into the root zone.

The Verti-Slicer is the perfect machine to open up the turf on mounds, bunkers and steep banks to make these hard to wet areas more receptive to water. Fairways can be deeply sliced at any time of year, even when play is heavy.

With no moving parts, slicing blades spaced four inches apart can be adjusted to any depth of from one to five inches.

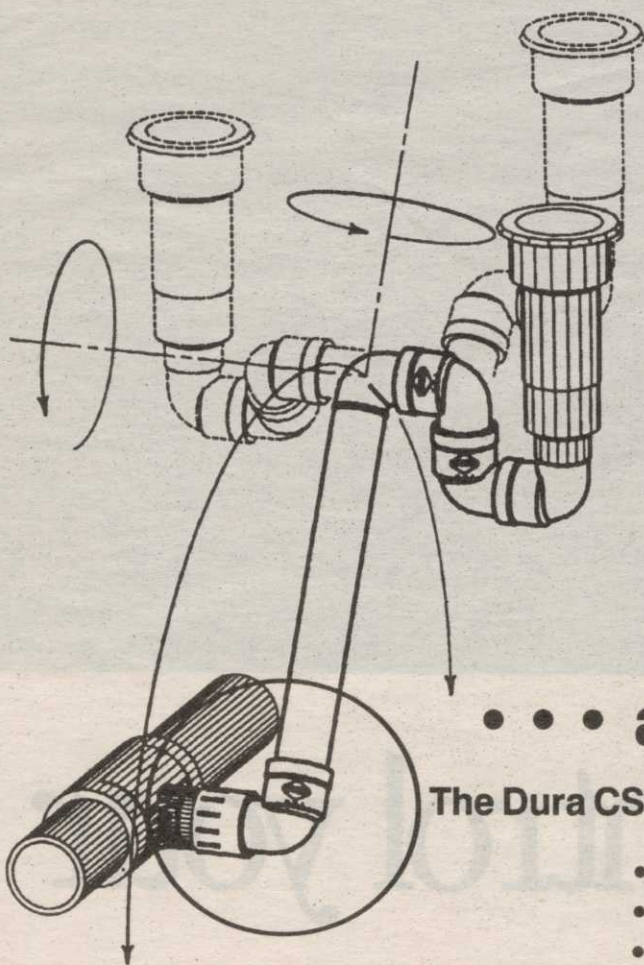
Contour aerifying with the Verti-Slicer can capture millions of gallons of runoff water on turfgrass areas.

Contact Turf Tech International, 4740 N.E. 12th Ave., Oakland Park, Fla. 33334; 305-938-7477.

CIRCLE NO. 306

# #1 Swing Joint gets a New Twist • • •

*The "Ultra" Unibody Swing Joint still offers all the proven features which makes it the #1 choice of the worlds leading Golf Course Builders.*



- Double O-ring seals
- Schedule 80 construction
- One piece Unibody construction
- Rated to 350 psi at 73°F per ASTM D3139 Std.
- Full 360° swing
- Vertical adjustment thru 8 1/4"
- Four year limited warranty

## • • • and here's the Twist

The Dura CS90 "Continuous 360° Swivel 90° Elbow"

- No disassembly to install
- Double O-Ring sealed
- Easier adjustment to grade

**Quality, Durability and Performance**

Stop by and see us at the GCSAA, booth 810-814

DURA PLASTIC PRODUCTS INC. BEAUMONT, CA. USA. 92223  
(714)845-3161 FAX: (714)845-7644



## Hazard liner is user-friendly

HOUSTON — Gundle Lining Systems has announced its new golf pond lining services.

Gundle says its golf pond lining services will help create leak-free, aesthetically appealing ponds, which are golfer, superintendent and management friendly.

Gundle's system also allows for a simple ball-retrieval system to increase recovery of valuable golf balls at less cost and less potential damage to the liner and less liability for unauthorized retrieval.

Gundline HD high-density polyethylene liners offer durability, weatherability and strength. Gundline HD is also fully UV stabilized allowing for soil-free or reduced soil linings saving money, time, cleaning, maintenance, and potential damage caused during soil placement.

For more information, contact Gundle lining systems, 19103 Gundle Road, Houston, Texas 77073; 1-800-435-2008.

CIRCLE NO. 307

## Fiber provides erosion protection

North American Green introduces a new, improved method for applying seed, mulch and high-performance erosion protection in one easy step.

North American Green Cell-O-Seed is a recycled cellulose fiber growth medium incorporated with standard or customer-specified seed mixes. The newly engineered incorporation process insures ideal seed distribution and germination throughout the erosion blanket.

Cell-O-Seed is available on most North American Green erosion control blanket types for professional seed application and unsurpassed erosion protection.

Contact North American Green, 14649 Highway 41 North, Evansville, Ind. 47711; 812-867-6632.

CIRCLE NO. 308

## New trailer takes on large loads

Tiger Line is marketing a new addition to its line of specialized and general purpose trailers. The Dump Trailer enable expansion of workload at low cost. It can help with all loading, moving and dumping needs without the expense of a dump truck.

The trailer incorporates an all-welded construction and is built for years of service, from the heavy-duty dumping mechanism to the reinforced tailgate.

The tailgate can be locked in almost any position to facilitate full dumping or even spreading in almost any situation. To compliment the dumping action, the dumping mechanism incorporates a special pivot design providing for complete dumping without trouble.

Contact Tiger Line Equipment, Inc., P.O. Box 121, 115 North Ohio St., Minster, Ohio 45865-0121; 419-628-3388.

CIRCLE NO. 309

## Jet stake assembly saves time

San Diego — Olson Irrigation Systems has introduced a jet stake assembly that offers several new features.

Riser tubing quickly snaps into the stake's two-way riser clip, and is held in proper alignment when it is pressed into its alignment clamp.

The riser is fitted with an adapter which self-punches into hose with the aid of a "handle-like" tool, eliminating one installation step and minimizing chances of dirt getting into the system during jet installation.

The jet stake assembly was designed for the Olson Ultra-Jet, which offers an additional time-saving feature with the jet's quick-lock connection. The Ultra-Jet snaps into the riser with a quick quarter turn, saving the time involved in threading a standard jet into the riser tubing.

The Olson riser support stake will hold a variety of riser tubing sizes. The self-punching adapters are available in 3/16-inch barb X barb or 10-32 thread x 3/16-inch barb sizes. A quick-lock adapter is available to convert 10-32 risers to quick-lock size.

Contact Olson Irrigation Systems, 10910 Wheatlands Avenue, Santee, Calif. 92071; 619-562-3100.

CIRCLE NO. 310

## Test kit for nitrate-nitrogen available

OAKLAND PARK, Fla. — A reliable, easy-to-use field tissue test kit for nitrate-nitrogen in turfgrasses is now available from Turf-Tec International.

The Tissue Test Kit includes strips of treated paper and a special tool to extract the sap from leaf and stem tissue into the absorbent test strip. Color will appear in one to five minutes, indicating the approximate amount of nitrate-nitrogen in the tissue. Full color will develop in

about 30 minutes. Color intensity ranges from low (200 ppm) to medium (400 ppm) and high (800 ppm).

Ideal range on intensively used turfgrass areas such as golf greens will range from medium to high on the color chart. Nitrogen levels can be monitored at the convenience of the Golf Course Superintendent. In order to prevent loss of turf from too low or too high the amount of Nitrate nitrogen, periodic monitoring will insure even growth.

Kits are available through distributors or directly from Turf-Tec International, 4740 N.E. 12th Ave., Oakland Park, Fla. 33334; 305-938-7477.

CIRCLE NO. 311

# Control your weeds.

SCOTTS® pendimethalin preemergents provide tough, effective control of a broad spectrum of grassy and broadleaf weeds.

You can't find a better — or more cost-effective — control.

And there's a pendimethalin control for virtually every turfgrass application.

**30-3-10 Fertilizer Plus Turf Weedgrass Control**, with up to 8 times more particles per square inch than typical competitive physical blends, provides the ultimate preemergent weed control plus a controlled-release, methylene urea-based nitrogen feeding.

**22-0-6 Turf Fertilizer Plus Preemergent Weed Control** combines urea, sulfur-coated urea, and a potassium feeding with unsurpassed control of 6 grassy weeds and 9 broadleaf weeds before they sprout. Fine particles increase weed control efficiency over typical competitive physical blends.

**14-0-14 Nitrogen/Potassium Fertilizer Plus Turf Weedgrass Control** combines nutrient sources with pendimethalin for effective preemergent control of 6 annual grassy weeds and 7 broadleaf weeds.

## Bench top monitoring

WOONSOCKET, R.I. — A programmable, PC-compatible benchtop microprocessor pH/mV/°C meter with audible alarms has been introduced by Hanna Instruments, Inc.

The HI 9017 features six internal programs to enter buffers and to set audible alarms to alert users when selected pH, millivolt and temperature values have been reached. All data collected can be input into a personal computer through the meter's RS232 interface.

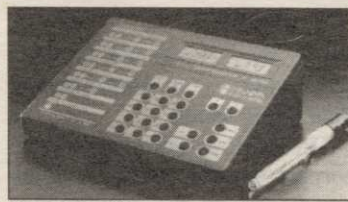
The HI 9017 is designed for use

in checking the pH of samples and experiments in the lab.

The HI 9017 is designed for use in monitoring pH levels when high accuracy is needed and can help companies comply with EPA guidelines when used to monitor treated wastewater prior to its discharge. Applications include water treatment and conditioning, sewage, industrial and hazardous waste, and environmental control.

The programmable HI 9017 allows operators to:

- enter two nonstandard pH buffers for use with special applications. The HI 9017 has standard buffer values pre-programmed into its memory;



Benchtop microprocessor pH meter

- set audible alarms on upper and lower pH, millivolt, and temperature values; the alarm will sound if the limits are exceeded;
- set an audible alarm on an endpoint pH value (an additional alarm can be set to warn the operator when the endpoint is being approached and
- set a command code when the PC interface is being used.

The HI 9017 can meet the requirements of any pH, ISE, or ORP electrode. The temperature monitoring features of the HI 9017 allow it to double as an accurate laboratory thermometer.

The HI 9017 features laboratory accuracy of +0.01 pH; +0.2 mV (ISE); +1 mV (ORP); and +0.5°C. The unit has a measurement range of 0.00 to 14.00 pH, +399.9 mV (ISE); +1999 mV (ORP); and 0.0°C, with a display readout of 0.01 pH; 0.1 mV (ISE); 1 mV (OR); and 0.1°C.

Contact Hanna Instruments, Inc., 584 Park East Drive, Woonsocket, R.I. 02895; 401765-7500.

CIRCLE 312

## User-friendly mowers show high performance

Jacobsen will feature several new products during the International Golf Course Conference and Show in New Orleans. Among them, the company will highlight its new HR-5111 rotary mower and ST-5111 reel mower.

Designed for use on golf courses, parks and other large turf areas, the HR-5111 has a cut of over 11 feet. Each rotary cutting blade is driven by a hydraulic motor, which means no more belts, blade pulleys, idlers and deck lids to worry about. The motors require no maintenance or lubrication.

The new ST-5111 hydraulic reel mower has a cut of more than 11 feet. Its front-mounted reels are easy to adjust and maintain without scraped knuckles, and allow tight trimming around obstacles.

Both have a fuel efficient 51-hp diesel engine. To reduce noise, the engine is surrounded by a full fiberglass body that won't rust. Four-wheel drive is standard.

Power rear wheel steering, tilt steering wheel, cruise control, a roll-over protection structure, seat belt and full instrumentation make the HR-5111 and ST-5111 as operator friendly as they are productive.

Contact Jacobsen, 1721 Packard Ave., Racine, Wis. 53403; 414-635-1251.

CIRCLE NO. 313

## Pre-assembled valve manifold assembly introduced

HAWTHORNE, Calif. — Salco Products Inc. is adding a new pre-assembled valve manifold assembly to its line of drip irrigation products.

"The unit is designed to minimize field installation problems and to assure that the supply control assembly has been properly connected and is compatible with the overall system design and operating parameters," said Sam Tobey, Salco president.

The valve manifold assembly includes a 1-inch wye strainer, a 3/4-inch pressure regulator, electric remote control valve, stainless steel screen, screen flushing ball valve and a downstream pressure gauge. The pressure regulator is pre-set at a non-adjustable 40 psi. This assures adequate pressure to the system and prevents field pressure adjustments that could destroy the system or cause malfunction.

A choice of several electric remote control valves is available that operate at low flow and are compatible with Salco Products drip irrigation components. The recommended maximum flow limit for the valve manifold assembly is 20 GPM. This assembly is also available with a 3/4-inch wye strainer.

Contact Tobey at Salco Products Inc., 4463 Hawthorne Ave., Hawthorne, Calif. 90250; 213-973-2400.

CIRCLE NO. 314

# Cut your costs.

**Southern Weedgrass Control** provides optimum utilization of pendimethalin necessary for season-long control on southern turfgrasses.

**Turf Weedgrass Control** provides unsurpassed pre-emergent weed control in both cool and warm season grass applications.

**Weedgrass Control 60 WP** offers liquid-applied pre-emergent control in both cool and warm season grass applications. It comes in convenient, easy-to-handle, water-soluble packets.

SCOTTS pendimethalin controls have been proven effective

and turf-safe for more than 6 years. Why risk your turf to anything less when you can count on these proven performers?

Your Scott Tech Rep is ready to help you select the formulation that's best for your course as part of a total turfgrass program. For more information, contact him today. Or call 1-800-543-0006.

There's no better way to control weeds, or your budget.



CIRCLE #173/GCSAA BOOTH #3233

Growing better through technology.

## Aerator provides high oxygen and mixing efficiency

CHASKA, Minn. — Aeration Industries International, Inc. is making available a European mechanical surface aerator called the AIRE-0<sub>2</sub> Turbo.

The AIRE-0<sub>2</sub> Turbo aerator is the newest concept in high-speed surface splasher aerator technology. It is a floating, axial flow, surface impingement aerator/mixer/evaporative cooler. Water is pumped to the surface by an Archimedes, double helix, screw-type impeller.

The water is discharged at a right angle to the axis of the machine by centrifugal force. A circular dispersion pattern is created where the discharge impinges on the water surface. Oxygen from the atmosphere is absorbed by the water and biomass in this impingement diameter.

A vertical or axial flow pattern for mixing and oxygen dispersion is created by the pumping action and the suction intake well below the surface of the water. High efficiency is achieved by applying the principles of the Archimedes screw and centrifugal force to utilize a greater percentage of the

horsepower consumed for oxygen transfer and mixing rather than lifting water.

The AIRE-0<sub>2</sub> Turbo aerator incorporates a Screweller technology based on the Archimedes screw principle. The company claims this design provides the benefits of evaporative cooling and extremely high oxygen transfer with 18- to 20-percent greater oxygen and mixing efficiency over conventional surface aerators. Because wastewater is dispersed by centrifugal force in a powerful horizontal pattern, the lowest possible trajectory (or liquid throw) is achieved, dramatically increasing surface

turbulence for better oxygen transfer and mixing.

The AIRE-0<sub>2</sub> Turbo aerator's low dispersion trajectory also minimizes odors, misting and icing problems associated with conventional mechanical surface aerators.

AIRE-0<sub>2</sub> Turbo aerators are available in sizes from 2 horsepower through 150 horsepower.

The technology was developed by Aqua Systems International of Brussels, Belgium.

Contact Aeration Industries International, P.O. Box 59144, Minneapolis, Minn. 55459; 612-448-6789.

CIRCLE NO. 315

## Upgrade responds to industry needs

TRIMS Grounds Management Software Version 2.3 has been released by LABB Systems/Software. This latest version of TRIMS incorporates many new features and modifications created in response to requests from superintendents.

Some of the TRIMS 2.3 features include chemical and fertilizer application logs, MSDS filing system and weather data base.

Extensive modifications have been made to increase the record-keeping capacity and allow unlimited editing of labor records, purchase orders, work orders and maintenance records.

Contact LABB Systems/Software, 6018 E. Osborn Rd. Scottsdale, Ariz. 85251; 800-733-9710.

CIRCLE NO. 316

## Pumping stations offer savings

NORCROSS, Ga. — SyncroFlo introduces Eagle VFD (variable frequency drive) series of pumping stations designed specifically for irrigation systems.

Variable frequency drive stations offer energy savings and utility discounts in some states. Pump station operation is automatically optimized for peak load requirements with a built-in PC logic controller, which saves energy and operator training.

The new SyncroFlo Eagle models also feature soft start operation and require no routine maintenance. Tanks are ASME Code - NB Stamped. Panels are UL labeled. A data access panel gives a continuous status update on system pressures, flow rates and set points. Performance is backed by three guarantees: two-year total system, five-year PC, and 48-hour system service.

SyncroFlo packaged pumping stations are designed to save time, labor and change orders on site. Completely self-contained units precisely fit specified areas, and require only system piping connections and a single point electrical hook-up.

Contact SyncroFlo, 6700 Best Friend Road, Norcross, Ga. 30071; 404-447-4443.

CIRCLE NO. 317

## Top creeping bentgrass available

Jacklin Seed Co. has announced plant variety protection approval for Putter creeping bentgrass.

Putter ranked as one of the top creeping bentgrass selections in many 1990 National Creeping Bentgrass Trial locations.

Putter creeping bentgrass is one of more than 50 improved turfgrass varieties commercially available from Jacklin Seed Co.

For National test results and additional information, contact Jacklin Seed Co., 5300 West Riverbend Ave., Post Falls, Idaho 83854-9499; 208-773-7581.

CIRCLE NO. 318

GOLF COURSE NEWS



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J. MICHAEL POELLOT GOLF DESIGN GROUP

YOU ARE THE BEST AT WHAT YOU DO!

DI GIACOMO IS THE BEST AT WHAT WE DO – THE DESIGN AND CONSTRUCTION OF WATER FEATURES AND ROCK FORMATIONS...

DO YOU AGREE?

*di Giacomo*



## Turf improved with less labor

TUNKHANNOCK, Pa. — Verti-Drain has introduced a new turf overseeder, called the Verti-Seed. The product incorporates Verti-Drain's patented technology redirected to turf seeding applications.

The Verti-Seed, which has been extensively tested in Europe the past several years, significantly reduces the formerly labor-intensive process of overseeding damaged turf areas. It is designed to produce quality turf with a minimum interruption in activity, especially on golf courses. Although the Verti-Seed was originally developed for golf greens, and expanded to tees and fairways, it can be used for virtually all sportsfield and lawn seeding applications.

The Verti-Seed's unique overseeding process begins with specially designed cutting discs that slice a sufficiently deep channel in the soil without damaging the turf. Immediately behind the cutter shaft are the seeding elements, consisting of a blade which further opens the channel, a special hopper which places concentrated seed into the channel, and a sliding pressure shoe to close the channel while maintaining a constant seed depth.

According to Otto, some machines previously used for overseeding were not really suited for the job, often resulting in damage to the soil structure and an unsatisfactory seed sowing pattern.

Both the Verti-Seed and the Verti-Drain were developed and are manufactured in Holland by Redexim. The two products are represented in North America by Emrex, Inc., with a national network of more than 30 distributors.

CIRCLE NO. 319

## Repellent reduces use of chemicals

Bound Brook, N.J. — Turf professionals can reduce insecticide applications with three new turf varieties that contain natural insect repellents. Jamestown II Chewings Fescue and Repell II and Yorktown III Perennial Ryegrasses are all available from Lofts Seed Inc.

All three varieties resist insect damage because each contains endophytes — fungi living inside the turf plant. Without harming the turf, the endophytes repel surface-feeding insects which would otherwise damage the plant's lower stem and crown.

Jamestown II, Repell II and Yorktown III are all offspring of well-known turfgrasses. The new varieties were developed to answer the needs of the 1990s: each offers dark green color, excellent overall performance and requires less chemical applications.

Jamestown II is an improved fescue for use where a fine texture is needed. Repell II and Yorktown III have been developed to offer darker color than most commercial ryes and slower growth to produce fewer clippings.

Contact Lofts Seed Inc., Bound Brook, N.J., 08805-0146; 908-356-8700, 800-526-3890 or, in New Jersey, 800-624-1474.

CIRCLE NO. 320

GOLF COURSE NEWS

## Vermeer unveils easy-to-maintain rock trencher

The new T-655 Trencher is Vermeer's latest high-powered rock trencher.

Powered by a 165hp CAT 3304DIT engine, it features full hydrostatic power-to-track-drive, conveyor and trencher functions.

Specially designed and built for low maintenance and ease of service, the T-655 is constructed with a Modular Power Pak (consisting of engine, pump drive, pumps, radiator, muffler, air cleaner) for easy

access when pulling maintenance. The entire Power Pak assembly mounts to a sub-frame and can be pulled out easily for service. A swing-out dashboard at the console also makes it easy to access the controls area. In addition, the T-655 is designed with side-by-side radiator and oil cooler, plus a larger capacity 85-gallon hydraulic reservoir to maximize cooling performance.

The 42,500-pound unit comes equipped with a planetary drive, hydraulic pump and motor on each independently operated track for greater torque, maneuverability and versatility. Automatic self-leveling



T-655 Trencher

tracks on the heavy-duty D4 undercarriage allow the operator to create a vertical trench in most conditions. The standard double grouser tracks measure 21 inches wide and can oscillate up to 12 degrees.

The trencher assembly is driven by two high-torque, low-speed, hy-

draulic motors directly coupled to the headshaft. This hydrostatic setup extends hydraulic component life and creates a lower operating pressure as the operator uses infinite speeds to match trenching conditions. The unit can be set up with either four- or six-foot booms for rock trenching (with digging widths of 14 and 18 inches). The boom's large 40-inch diameter end idler reduces snap on the cutters and provided greater support and stability for the ditcher assembly. For trenching in dirt, the unit can be outfitted with 4-foot and eight-foot booms.

CIRCLE NO. 321

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**BANOL** Fungicide. Controls *Pythium* and *Phytophthora* in turf and ornamentals.

**PROGRASS** Herbicide. Controls *Poa annua* and broadleaf weeds in perennial ryegrass, Kentucky bluegrass, and creeping bentgrass turf.

**PROXOL** 80SP Insecticide. Rids fine turf of white grub, sod webworm, cutworm and armyworm.



**NOR-AM**

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Always read and follow label directions.

CIRCLE #175/GCSAA BOOTH #2146

## Utility vehicle features power and luxury

LINCOLN, Neb.—Cushman has introduced the GT America, a sporty-looking utility vehicle with wide-ranging job capabilities.

Golf managers will find the economical vehicle ideal for personal and supervisory run-about use on the course. At the same time, the 44- by 40-inch cargo box can be used to haul tools, equipment or supplies with the vehicle's 1,000 pounds of payload capacity.

The GT America features an

aerodynamic, steel and fiberglass body, supported by a wrap-around all-steel tubular frame. The suspension system — dual, three-leaf springs in front with dual coil springs in rear and front and rear shock absorbers—gives the vehicle unusually smooth riding qualities as well as smooth handling, even with heavy loads. Special Turfrac high-flotation tires are standard, for improved traction and minimum turf compaction.

A new feature — positive traction lock — delivers torque to both rear wheels for extra traction in mud or loose sand. The operator simply depresses a spring-loaded foot pedal to activate the positive traction lock.



GT America

The GT America features a custom-style steering wheel with integral horn button, rubber padded foot controls and a sculptured seat and backrest for operator comfort. Steel hip restraints are designed for easy access. Amenities include recessed cup holders for driver and passenger, cigarette lighter and heavy-

duty floor and cargo mats for appearance and added durability. The GT America also features an installed marine AM/FM cassette stereo radio.

Powered by an 8-horsepower, 4-cycle gasoline engine, the GT America has power, yet operates economically. An electric model is also available, powered by a heavy-duty 36-volt electric motor. Top speed for both models is 12 mph.

With standard 8-inch sides, the cargo box has a capacity of 8 cubic feet and comes with a gas spring-assisted manual dump for easy unloading.

Contact Cushman, P.O. Box 82409, Lincoln, Neb. E 68501; 800-228-4444.

CIRCLE NO. 322

## EPA recommends new wastewater treatment method

DALLAS—Clearwater Environmental Systems, Inc. offers a new wastewater treatment method recommended by the EPA for recycling waste-water. Clearwater's Model 1100 Wastewater Treatment units may be configured to treat water prior to discharge off site, or into on-course ponds or tanks ready for watering or re-use in equipment wash bays.

The recycling units save water, stop pollution, and require little maintenance. They operate by gravity flow and use a two-phase filtering system. A proprietary sand and gravel filter sifts particulates, oil and grease. A discharge chamber, fitted with filter media, treats pesticides, herbicides and other contaminants.

The treatment units are substantial steel rebar and concrete construction, measuring 5- by 9- by 6-feet, with 6-inch walls, top and bottom, weighting 11,000 pounds without filter material.

Clearwater systems meet RCRA and CWA regulations, never need structural maintenance, allow for easy filter-media exchange, are warranted and installed with Clearwater engineering supervision. Units may be ordered "set in ground," ready for plumbing, or "turnkey."

Contact Clearwater Environmental Systems, Inc. 14901 Quorum Drive, Suite 480, Dallas, Texas 75240; 800-0444-7193.

CIRCLE NO. 323

## Blanket protects grass from winter

ARLINGTON, Texas—American Excelsior Co. has announced Curlex GreenSavers, a machine-laid wood excelsior blanket for golf course protection in the winter months.

American Excelsior's Curlex GreenSavers are made from aspen wood excelsior enclosed in a plastic netting, forming a blanket. It is not harmful to the grass or soil, and do not contain pitch, tar or resin.

Once in place, the machine-laid blanket helps prevent grass from drying out on high windswept greens due to wind and freezing cold, while allowing air to circulate to prevent dryness from heat build-up. Curlex GreenSavers' insulating properties also help reduce frost penetration.

Curlex GreenSavers maintain a more constant temperature, minimizing the freeze/thaw cycle and establishing quality greens early in the spring.

Curlex GreenSavers come in 400-square-foot rolls, measuring 48 inches by 100 feet. Each roll weighs 72 pounds. Curlex GreenSavers are available through American Excelsior's 28 sales branches in the United States.

Contact Ken Starrett at American Excelsior Co., 850 Avenue H East, P.O. Box 5067, Arlington, Texas 76011; 817-640-1555.

CIRCLE NO. 324

## You aren't born smart. That's why there's such a thing as experience.



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—John Frick  
Owner, Grassroots, Cincinnati, OH



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CIRCLE #176

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St. Paul manual helps address fed'l standards

St. Paul Fire and Marine Insurance Co. has introduced a new Hazard Communications Manual designed to assist golf and country club policyholders in complying with the Occupational Safety and Health Administration Hazard Communication Standard and Environmental Protection Agency standards.

The *St. Paul's General Manager's Guide: Hazard Communications Manual for Country Clubs* provides step-by-step instructions for conforming to the requirements of the EPA and OSHA Right-to-Know rules and managing exposure to hazardous substances.

Recently, noncompliance with Right-to-Know regulations has become the most cited infraction in OSHA complaints. Fines attached to such citations can range from \$10,000 to more than \$100,000.

The manual is being published at a time when club managers are facing increasing pressures regarding the effective management of complex right-to-know rules and regulations. In addition, many states now require written safety programs on hazard communication issues.

A complete hazard communications program helps country clubs educate their employees and meet their responsibilities to state and community emergency service authorities in regard to the handling of hazardous materials (such as pesticides) at clubs. A program also should detail how to respond if an accident occurs.

The manual features how-to guidance for developing comprehensive written hazard communication and employee training programs. The manual also includes a hazardous materials list, material safety data sheets and explanations, labeling explanations checklists, chemical and physical agent fact sheets, respiratory protection information, community right-to-know guidelines and visual aids from The St. Paul.

The manual is available to all policyholders of The St. Paul's Eagle 3 insurance program, which focuses on property and liability needs of country clubs and premier golf facilities.

The Eagle 3 program includes enhanced coverages such as directors' and officers' liability, liquor liability and coverage for damage to tees, fairways and greens.

St. Paul Fire and Marine Insurance Co. is a member of The St. Paul Companies, selling insurance and insurance-related products and services through independent insurance agents in the United States and Canada.

For more information telephone 407-660-2700.

Wikco releases 1992 equipment catalog

Wikco Industries recently released its 1992 catalog of grounds maintenance equipment.

The catalog includes a complete line of commercial equipment including mowers, aerators, sprayers, 2-way radios, tire changers, sweepers, trenchers, irrigation machines, brushes, chippers and small backhoes.

All products are backed by Wikco Industries 2-year Parts Plus discount program. Receive a 15- to 25-percent discount on all parts purchased for two years.

For a free copy contact Wikco Industries at Route 2 Box 154, Broken Bow, Neb. 68822.

**February**

3-5 — *Mid-America Green Industry Convention in Kansas City, Mo.* For more information contact Olivia Golden at 816-765-7616.

5-6 — *Massachusetts Landscape Conference in Boxborough.* Contact 617-964-0452.

5-7 — *American Sod Producers Association Midwinter Conference in Las Vegas, Nev.* Contact Thomas Ford at 708-705-9898.

10-17 — *Golf Course Superintendents Association of America Annual Conference & Show in New Orleans.* Contact 913-841-2240.

12 — *GCSAA Seminar on Wildlife Management and Habitat Conservation in New Orleans.\**

24-25 — *Professional Lawn Care Association of America Legislative Day on the Hill in Washington, D.C.* Contact 404-977-5222.

24-27 — *American Seed Trade Assn. Management Academy in West Lafayette, Ind.* For more information contact 317-494-4247.

26-27 — *Canadian Golf Forum in Toronto.* Contact 416-849-9700.

**March**

3 — *GCSAA Seminar on spray technicians in West Palm Beach, Fla.\**

3-4 — *GCSAA Seminar on Golf Course Design Principles in Cincinnati.\**

3-5 — *Massachusetts Turfgrass Conference and Industrial Trade Show in Springfield.* For more information contact 413-549-5295.

5-7 — *NGF seminar on Golf Course Operations in the '90s, Obstacles Overcome by Successful Golf Course Operators in Ponte Vedra Beach, Fla.* Contact Roger Yaffe at 407-744-6006.

9-10 — *GCSAA Seminar on Landscape Design & Plant Materials in Bloomington, Ill.\**

9-11 — *GCSAA Seminar on developing and maintaining effective management employee relationship in Tarrytown, N.Y.\**

10 — *GCSAA Seminar on spray technicians in Mamaroneck, N.Y.\**

10 — *GCSAA Seminar on Turfgrass Stress Management in West Chester, Pa.\**

16-17 — *GCSAA Seminar on Environmental Considerations in Golf Course Management in Minneapolis.\**

18-19 — *Financing Golf Course Developments seminar in San Diego.* Contact 800-285-2332.

22-25 — *National Club Association Club Leadership Conference in Pinehurst, N.C.* For more information contact 202-625-2080.

24 — *US Golf Association Regional Conference in Wakefield, Mass.* Contact 908-234-2300.

24-25 — *Maine Turfgrass Conference & Show in Portland.* Contact Chuck Ravis at 207-395-4298.

26-29 — *Golf Asia '92 in Singapore.* For more information telephone 65 2966961.

**April**

5-7 — *National Golf Foundation seminar on Golf Course Operations in the '90s - Issues Affecting the Future of Successful Operations in Newport Beach, Calif.* Contact Roger

Continued on page 85

# Golf Course Marketplace

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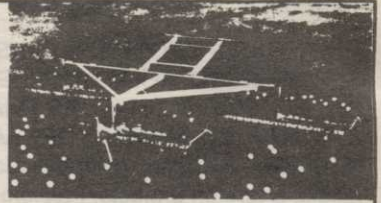
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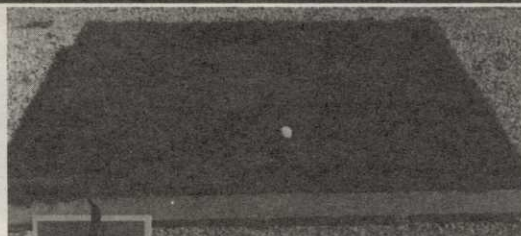
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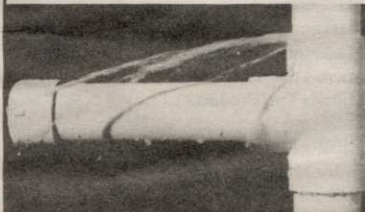


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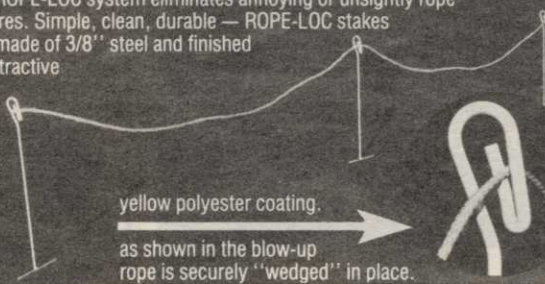
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CIRCLE #201

## CALENDAR

Continued from page 84

Yaffe at 407-744-6006.

6-7 — *Golf Course Superintendents Association of America Seminar on Landscape Design & Plant Materials in Bolton, Mass.\**

9 — *Water conservation and quality seminar in Sanford, Fla.* Contact Seminole County Extension Service at 407-323-2500 ext. 5559.

28-30 — *Agri-business computer conference in Sanford, Fla.* Contact Seminole County Extension Service at 407-323-2500 ext. 5559.

## May

3-5 — *National Golf Foundation seminar on Public/Private Joint Ventures in Golf Course Development in Irving, Texas.* For more information contact Roger Yaffe at 407-744-6006.

11-13 — *Crittenden Golf Development Expo in Palm Springs, Calif.* Contact 800-443-8318.

19 — *Diseases of ornamental plants seminar in Sanford, Fla.* Contact Seminole County Extension Service at 407-323-2500 ext. 5559.

## June

7-9 — *National Golf Foundation seminar on Alternative Golf Facilities — The Development and Operation of Ranges and Non-regulation Golf Courses in Falls Church, Va.* For more information contact 407-744-6006.

27-July 2 — *American Seed Trade Association's 109th Annual Convention in Washington, D.C.* For more information contact 202-223-4080.

## August

9-12 — *47th Annual Soil & Water Conservation Society Meeting in Baltimore.* For more information contact 515-289-2331.

## September

20-22 — *National Golf Foundation seminar on Public-Private Joint Ventures in Golf Course Development in Newton, Mass.* For more information contact Roger Yaffe at 407-744-6006.

## October

21-23 — *National Golf Foundation Golf Summit in Orlando, Fla.* For more information contact National Golf foundation at 407-744-6006.

\* — For more information or to register, contact Betsy Evans, education coordinator, Golf Course Superintendents Association of America, at 800-472-7878 or 913-841-2240. The seminars are dependent upon the availability of the instructors, and are therefore subject to change. One-day seminars cost \$100 for GCSAA members and \$120 for non-members; two-day seminars cost \$180 for members and \$210 for non-members.

# Fred Haas' 108 hours

*That's all it took to build nine greens with Mod-Sod*

By Vern Putney

**F**red Haas, 45-year tour professional who has spent more time on golf courses than any top-flight player in the history of the game, may go down in the record books as more than just the well-seasoned amateur who on Aug. 20, 1945, at Memphis, Tenn., National ended Byron Nelson's PGA Tour win streak at 11.

The Metairie, La., native last April spearheaded a volunteer crew of Highmore Country Club, S. D., members constructing nine greens in 4 1/2 days and playing on the afternoon of the fifth day.

The secret of their speed success was use of Haas' patented Mod-Sod.

Highmore members had played on a Mod-Sod green course in the summer of 1990, and decided to replace their sand greens with that easy-to-maintain product.

After their course closed in the fall of 1990, they sculptured the bases. The greens weathered the winter well.

In April of 1991, the bases were dragged to get them smooth, stable and compacted.

On April 20, the Mod-Sod panels, which had been stored over the winter, were placed on the nine bases. With the help of 40 club members, panels were sealed together and then top-dressed with the patented Mod-Sod process.

With the holes cut and cups and flags placed on the fifth day, play began. The Guinness Book of Records may have ex-



Fred Haas remains active in golf as well as entrepreneurship.

Photo by Dr. Carman Pettapiece

panded a few paragraphs.

Green sizes went from an average 900 to 2,500 square feet.

Maintaining the desired stimpmeter is achieved by use of a \$150 seven-foot-wide mahogany pull broom dragged or pulled over the Mod-Sod two to five times a week.

A 6- to 12-foot Mod-Sod fringe will eliminate maintenance of watering, mowing and fertilizing, plus the capital expenditure of a Triplex and other expensive mowing equipment.

If the base is prepared correctly, Haas said, rain never will be a problem.

Haas sees Mod-Sod as the best way over

the next decade to beat the high cost of course construction.

"Communities such as this small farming area can make golf affordable and courses practical to build," Haas declares. "Highmore is the 11th Mod-Sod course. All have defied harsh weather conditions."

At 74, Haas has about severed tour connections in favor of close attention to an expanding Mod-Sod market. Somewhat reluctantly, he's yielded his grip on an outstanding tour record.

Haas sees his golf future as making the game more enjoyable and economical for families. Mod-Sod, he feels, is the answer.

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132	Parkway Research	36	3656-3658
190	Pavelec Bros. Construction	84	—
177	Perfection Sprinkler	86	806
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