

GOLF COURSE NEWS

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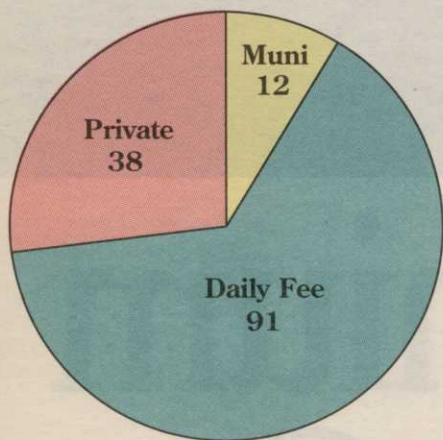
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Types of university-affiliated golf courses in the United States. Total = 141 Source: NGF

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USGA promises another \$4.1M

Executive Committee promises continued support through 1997

By Mark Leslie

The U.S. Golf Association Executive Committee has approved another \$4.15 million in funding for research projects.

Revealing the decision made on June 10, USGA Green Section National Di-

rector Jim Snow said he was excited at the committee's high level of support for the research program.

The committee this winter allotted \$3.8 million to 18 research projects through 1992. That will complete the 10-year program that began in 1983.

This new infusion of funds will carry research from 1993 to 1997, Snow said.

Accomplishments so far have consisted mostly of findings that set the foundation for further studies, Snow

said. He cited the Turfgrass Information File at Michigan State University, which "is a tremendous resource for the entire industry and is just now catching on"; development of NuMex Sahara bentgrass and 609 buffalograss; and investigation of breeding improvements such as screening for salt.

"These are things you can't visually see, but that were important research," he said. "We're at the point now where

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The University of Wisconsin has joined the growing ranks of universities with affiliated golf courses. This is a view of its new Robert Trent Jones Jr.-designed course, which officially opens in July. See a story on university courses on page 33.

Winter whacks Washington courses with winter kill

By Bob Spiwak

Yoyo-like winter temperatures caused winter kill that devastated greens on northern Washington State courses, costing tens of thousands of dollars in repair bills and lost revenues.

The Spokane area, which boasts some of the nation's best municipal courses, was hit the hardest. Indian Canyon, perennially listed among the

top U.S. venues, counted at least half its greens this spring as "browns." And it was not alone.

In fact, courses that fared best had newly planted bentgrass, or were blanketed with snow throughout the winter. Most severely damaged were courses with incursions of poa annua (annual bluegrass) and little or no snow

Continued on page 13

Mass. enacts new pesticide mandates

By Vern Putney

The Massachusetts Department of Food and Agriculture will require all private and commercial pesticide applicators to file an annual report listing specific pesticide use information based on previous year records beginning in 1992.

The records will be made available to the 351 cities and towns in the Bay

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Seed scientists making great strides

By Mark Leslie

While plant breeders are making extraordinary advances in turfgrasses, scientists are probing and developing other improvements using nature's endophytes and nematodes and new

See related stories p. 20-26.

techniques like seed priming and coating.

"A lot of very bright and talented young people are going into turfgrass research," said Dr. Reed Funk

of Rutgers University, an expert in cool-season grasses. "They will do a lot of things that haven't been done.

"Priming," he added, "could be developed to be a delivery system for micro-

Continued on page 20



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CIRCLE #101



Protesters picket Hawaiian conference

HONOLULU — About 20 students and senior citizens protesting golf course development in Hawaii picketed the recent International Conference on Resorts and Golf here.

Protester concerns focused on issues of water use and quality, fertilizer and pesticide applications, soaring property values, foreign investments and cultural dilution.

Dr. Michael Hurdzan, a conference speaker and golf course architect from Columbus, Ohio, met with the protesters to discuss their viewpoints and present alternative opinions.

He said he suggested their arguments were founded in emotion, not fact or logic.

"I think the older protesters sincerely listened to my counterpoints and may have softened. The younger ones, on the other hand, simply redirected their frustration at me personally," said Hurdzan.

The protesters recognize that golf is just one small factor changing the social and economic face of Hawaii, but one that can be easily isolated and attacked, he pointed out.

Poll: Hawaiians oppose building more courses

KAILUA, Hawaii — Residents here don't want to see any more golf courses built in their community. That's the conclusion of a recent poll of more than 12,800 households, by the Kailua Neighborhood Board.

Nearly 80 percent of those who responded to the informal survey oppose additional golf course development in the area. Almost 90 percent do not feel drinking water should be used to irrigate golf courses in Windward Oahu, but 85 percent favor using treated waste water for that purpose.

Results of the survey will be sent to each of Kailua's state and country elected officials. Other citizen opinions gleaned in the poll include a thumbs-down on major growth, downtown high rises and guns, and thumbs-up for recycling, and a park-and-ride lot.

Slow Pa. market delays project

WHITPAIN TOWNSHIP, Pa. — A proposed deluxe housing complex and golf course here has been stalled by a tough real-estate market.

The developer of the proposed Ballenrose property, Horsham-based Hansen Properties, Inc., is offering other developers a chance to buy and develop parts of the 500 acre site. While initial plans called for 851 housing units, so far only four model homes have been built.

Even though other developers can buy into the housing plans, Hansen Properties intends to build the 18-hole golf course, which is designed by Arnold Palmer's Palmer Course Design Corp.

GOLF COURSE NEWS

"Their goal is to try to stop all further golf course development. The protest was orderly and was carefully observed by uniformed city police officers from across the street," Hurdzan said, adding there was no disruption to the conference, which was attended by about 400 persons from 20 countries.

"After the conference, I toured one golf course under construction that the protesters specifically felt was a rape of the land," said Hurdzan. "To the uninitiated, golf course construction may seem destructive. But what I saw was a very

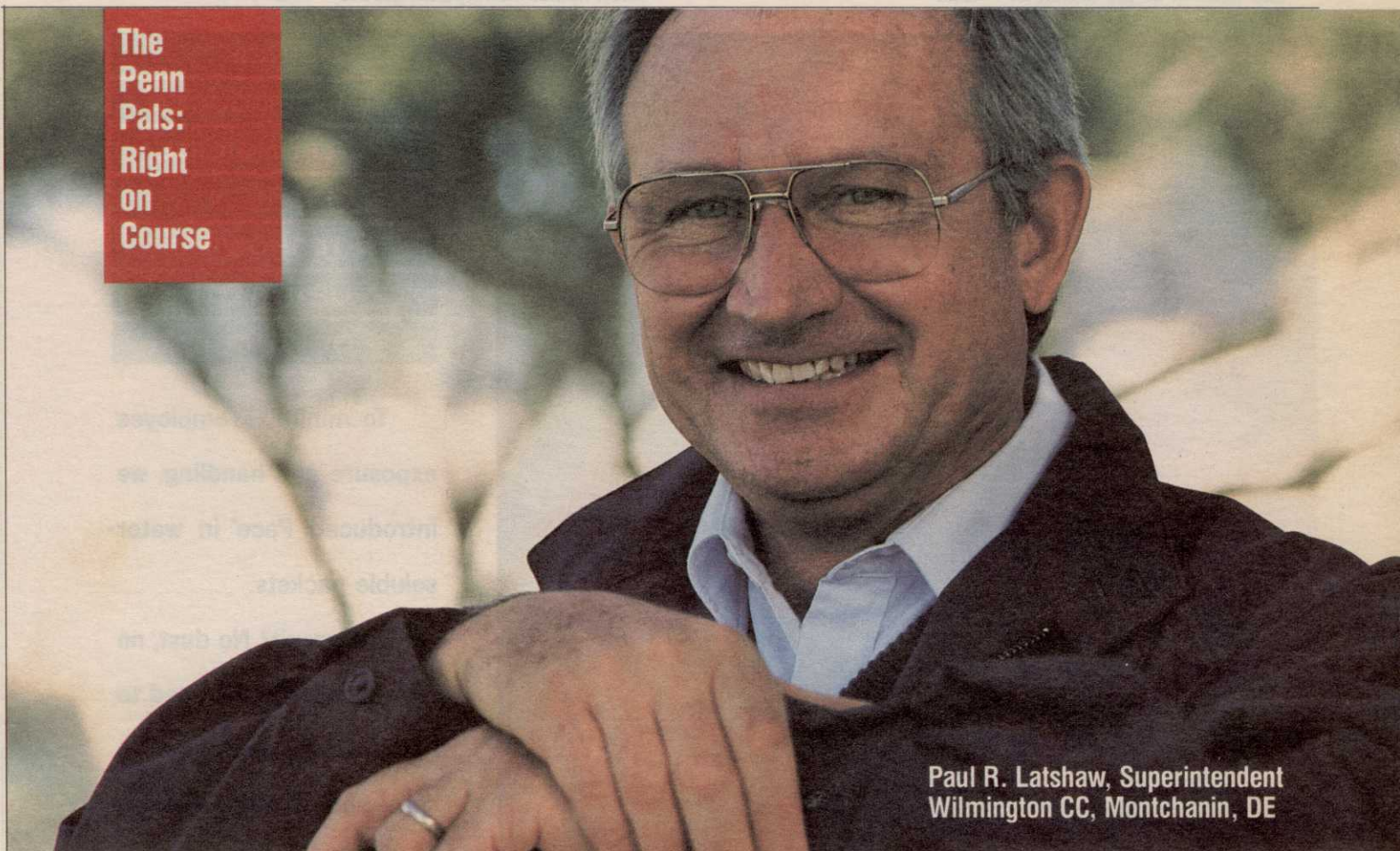
well-orchestrated process that followed all rules and guidelines set forth by the permitting agencies. It was textbook environmental protection despite working around designated natural areas, steep slopes and three squatters' homesteads."

Newspaper and television coverage of the protesters was widespread, but most media sources balanced their reporting with interviews with Gary Player Design Co. President Jim Applegate of , Dean Chuck Gee of the University of Hawaii and himself, Hurdzan said.



Dr. Michael Hurdzan, at right behind picketers, speaks on the issues of development protest.

The Penn Pals: Right on Course



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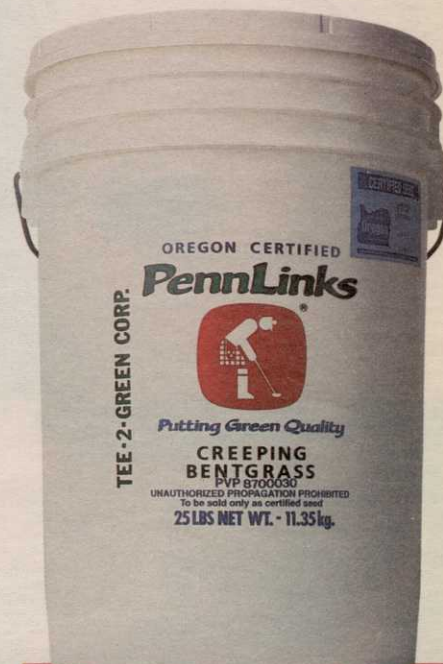
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1990s the decade of the endophyte, says Lofts' Hurley

By Mark Leslie

MARTINSVILLE, N.J. — Endophytes will be the wonderchild of the 1990s, and people will use specialty grasses more often to solve specific problems, according to Dr. Richard Hurley, vice president and director of agronomy and research for Lofts Seed, Inc.

Seed researchers have made extraordinary advances in the last 20 years and "an exciting decade" lies ahead, Hurley told visitors at Lofts' 18th annual field day at its research farm here June 12.

"The '90s will be the decade of

the endophytes," Hurley said. "The '80s were the decade of tall fescues. The '70s were the decade of the ryegrasses."

Hurley said in the last 10 to 15 years, seed yield has greatly improved. He cited the increase in perennial ryegrasses as the critical factor in keeping prices in the same range as in the early 1970s.

"In the transition zone and southern part of the United States, ryegrasses are probably the most versatile and useful grass brought to market in the last 20 years," he said.

Lofts, a leading supporter of university turfgrass research for many years, is bringing four new ryegrass varieties into the marketplace in the next two years.

He said breeders have done "revolutionary work" with turf-type tall fescues, especially at Rutgers University, in making it more useful for homeowners, parks, and util-



ity sites. "A lot of people are just starting to recognize tall fescue does very well in the shade. It should be given more consideration than in the past," he said, suggesting it could be one of the "specialty grasses" that will be used for specific areas like golf course roughs.

Likewise, Hurley said some "exciting varieties" of Kentucky bluegrass are coming on the market.

"One problem," he said, "that many of the most attractive ones have is low seed production... The more reasonably priced ones have high yield in seed."

Hurley said breeders are "learning they must go more slowly in marketing low-growing, slow-growing varieties," after learning they do not establish or recover well.

"We are looking at something more moderate... that can recover more quickly, establish more quickly..." he said.

Meanwhile, the search is on to find endophytes in bentgrasses, bluegrasses and other species.

An endophyte is a natural fungus that protects grass from sucking and chewing insects like billbugs, sod webworms, chinch bugs and aphids.

In those varieties for which an endophyte has been discovered,

RESEARCH PLUSES

Meanwhile, Dr. Richard Cooper of the University of Massachusetts in Amherst spelled out results of pesticide runoff tests and the Cape Cod Study of ground water which reported overwhelmingly positive results for the golf course and lawn care industries.

Even under worst-case scenarios of over-fertilization and 100-year floods, runoff studies have found pesticide levels far below the hazardous figures set by the Environmental Protection Agency.

In the Cape Cod Study — on an area in Massachusetts that Cooper described as "a sponge" — "no currently registered turf-type pesticides were detected in toxicologically significant concentrations."

Cooper, an associate professor of turfgrass science, said the industry is set apart from others in that "we have choices."

"If we find something that's an environmental concern, in most cases we have alternatives we can choose," he said. "When the real numbers come out (of longer-term research), we can show golf courses and home lawns are areas that benefit the environment, not wreck it."

"I still think we probably use too many pesticides, especially on golf courses where we have this obsession with perfect turf wall to wall. Yet the numbers bear out the fact we're not hurting the environment."

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GCSAA appeals jury verdict awarding McLoughlin \$1.5M

By Mark Leslie

The Golf Course Superintendents Association of America hopes to reverse a jury finding that awarded \$1,457,742 to former Executive Director James McLoughlin. Yet the organization stands to lose even more money as the case drags on.

Legal fees and interest costs are rising as GCSAA officials await Topeka, Kan., federal district court Judge Richard Rogers' ruling on their motion for a retrial of the case. In May an eight-person jury in that court awarded McLoughlin \$457,742 for breach of a separation agreement and \$1 million for libel — \$500,000 compensatory damages and \$500,000 punitive damages.

Jurists agreed McLoughlin proved eight of nine libel charges against GCSAA officials who were allegedly trying to discredit McLoughlin to prevent a move of headquarters from Lawrence, Kan., to Florida.

Rogers could rule sometime in July to reduce the award, deny a new trial, or send the case to a new jury, according to GCSAA attorney Robert Ochs.

If Rogers denies a retrial, Ochs believes the superintendents association will appeal to the 10th Circuit Court of Appeals in Denver.

That three-person panel could take nine months to a year to decide whether to hear the case, Ochs said. Another several months could pass before the Appeals Court heard and decided the case.

In the meantime, once an appeal is entered, not only would the meter be running

on interest and attorney's fees, it would mean putting up a bond and opening the door for a reversal of conspiracy charges McLoughlin leveled against GCSAA.

McLoughlin attorney Dennis Egan felt he lost the conspiracy portion of the suit because the judge ruled Egan had to prove conspiracy occurred after Nov. 8, 1983, when the statute of limitations for conspiracy expired. This prevented Egan from using valuable evidence, he said.

Egan, of The Popham law firm in Kansas City, contends the conspiracy to discredit McLoughlin was ongoing from the day McLoughlin left the GCSAA in May 1983.

The bond also comes into play in the case of an appeal. If it appeals, the GCSAA will have to find an insurance company to bond the verdict, guaranteeing GCSAA would pay any judgment against it.

Saying he respects the appeal process and anticipated GCSAA's action, McLoughlin said he is "comfortable with our arguments... In fact, our position on appeal might be better than theirs because we might be able to get a reversal on the judge's conspiracy decision."

Indeed, in one previous case against the GCSAA, going through the appeals process cost the organization more than \$100,000 as opposed to the original award of \$50,000.

In that case, Egan represented Zahid Iqbal, then-editor of the GCSAA's Golf Course Management magazine, who had been fired.

A March 1986 verdict found GCSAA guilty of retaliation and discrimination, and awarded Iqbal \$50,000. When a new trial was denied, Ochs appealed. In the appeal process, Iqbal gained another \$46,000 in attorney fees and \$8,000 interest.

Meanwhile, as time passes in the McLoughlin case, the GCSAA bill is increasing at the Treasury Bill rate, or around \$90,000 a year. And Popham legal assistant Carol Vetter estimated McLoughlin's bill for the appeal process could be \$20,000 to \$30,000.

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Locals eye Ft. Ord course closing as opportunity

MARINA, Calif. — As the Pentagon closes down military bases around the country, local officials wonder what to do with the left-over facilities. But one Monterey County official sees in the impending Ft. Ord closure, the opening of a tourist golf mecca.

Supervisor Marc Del Piero has outlined a tentative plan that calls for developing an international airport and fairgrounds on property on and near Ft. Ord.

Del Piero said a golf course and other supporting facilities, key to developing a tourist industry, could also be part of Ft. Ord's future.

Locating a golf course there could be cost-effective, Del Piero said, because of the availability of reclaimed water from a nearby sewage plant. Two championship-caliber golf courses — Bayonet and Black Horse — are already in operation at Fort Ord.

Old Wayne trial delayed until August

WEST CHICAGO, Ill. — A trial to determine the condemnation price of the Old Wayne Golf Course, has been postponed until Aug. 19.

At that point the suit over whether the 27-hole privately owned golf course will be acquired by the Du Page County Forest Preserve District will continue. The district has targeted the course to become the final link in a chain of Forest Preserve holdings along the west branch of the Du Page River.

The 184-acre parcel would become the fourth golf course to be included in the district's holdings.

Coeur d'Alene's action against beavers draws public outcry

By Bob Spiwak

Idaho's Coeur d'Alene Resort golf course has been open two months, and some statistics are in. While there has been some superb iron play, a little guy named Castor Canadensis has dominated the woods. The resort is not happy.

Castor is the Latin name of the American beaver, and his breed has been chomping on poplar trees that cost the resort \$2,000 each. Thirty trees were planted. Six became beaver breakfast.

Chicken wire was wrapped around the trunks but Castor, recognizing these as man-made hazards, pulled it away. Repellent was used and electric fencing tried. Castor simply played through.

According to Steve Wheeler, the resort's director of communications, the rotund rodents may have been but a single "rogue" beaver, and not a foursome. At the end of May, the nocturnal nibbling seemed to have stopped. Wheeler said no traps were used and no beavers killed.

Earlier, a Seattle newspaper reported that trapping would be used to remove the marauders. Even resourceful beavers are not too adept at playing out of traps.

Thankfully, there has been a lull in the poplar poaching. If the beaver returns, some wisecracker from the press will give it a name.

Like, Bill Castor.

Judge denies appeals as \$30M project proceeds

EAST LYME, Conn. — A Superior Court judge has cleared the way for a proposed \$30-million golf course, by dismissing appeals to block construction of the project.

The decisions, issued by New London Superior Court Judge D. Michael Hurley, remove any pending environmental legal barriers to construction of the Country Club of New England, a 19-hole championship course and club on 300 acres. However, still at issue, is whether the construction delays could sink funding for the project.

New London resident Robert Fromer had gone to court to try and overturn approvals of the project granted by the East Lyme Conservation and Zoning commissions in September 1989.

Country Club founder Nathan M. Shippee of Old Lyme said Fromer's appeals have stalled construction of the club, and Shippee predicts Fromer might attempt to appeal the recent judgment. Shippee said he is considering suing Fromer, an environmental activist, for filing what Shippee calls "frivolous" lawsuits.

Earlier this year, Shippee was given legal notice of foreclosure on the property, by Suffield Bank.

China's first modern course opens in Shanghai

SHANGHAI, China — Golf returned to Shanghai amid firecrackers and lion dances on May 21 as Shanghai International Golf and Country Club, the first modern 18-hole championship golf course in Shanghai opened.

To the sound of trumpet fanfare played by schoolchildren, club Chairman Shen Jia Ling and other officials hit ceremonial golf balls to officially open the course. The ceremonies ended with a Chinese banquet at Westin Tai Ping Yang Hotel for 200 invited guests from throughout China and around the world.

The course was designed by Robert Trent Jones Jr., who attended the ceremonies.

The concept for a golf club and sports center was originated by Prescott Bush of New York when he and Jones visited Shanghai in 1983 to meet with city and sports officials.

Shanghai Mayor Wang Dao Han's agreed to Bush's proposal in 1985, and the Aoki Corp. of Tokyo joined the project as its major investor and developer.

The club is located on the bank of the Dian Shan Lake, about 36 miles

west of the center of Shanghai. In addition to the golf course, the facilities will include three practice holes and a water driving range. The club will add 12 tennis courts, a swimming pool and villas.

The project, with an investment of \$18 million, is already filling a large number of the 800 memberships available.

Representatives of the club said players at the course were attracted by the special concept and cosmetic touches of the white sand bunkers, lakes and specially planted trees.

The clubhouse, in the 19th-century

British villas style, provides a unique tone to the development. The building was designed by P&T Hong Kong Ltd., which also designed the earliest Western buildings in China in the 1920s, including the Shanghai City Hall, the Peace Hotel and other buildings along the famous waterfront bund area of Shanghai.

The Aoki Corp. was responsible for construction management. The club received great support from the government of China and the people of the region who built much of the course by hand.

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Non-profit Glenmaura by invitation only

Developer proposes 200 memberships to generate \$8M

MOOSIC, Pa. — Aureus Inc. President Edward J. Manley plans to build a world-class golf course on 210 acres of land across from the Lackawanna County (Pa.) Multi-Purpose Stadium. And Manley says the golf course will be part of a first-class country club, with memberships by invitation only.

Manley hopes the non-profit Glenmaura National Golf Club will

be open by 1993. So far, he's had the site reviewed by several big industry names, including course designer Michael Hurzdan and Wadsworth Construction Co. Manley reports the experts have liked what they've seen.

Manley said local demographics show an area that is overpopulated in terms of public and municipal golf courses, but in need of private clubs.

Glenmaura will seek memberships to generate at least \$8 million. This number includes 217 regular memberships at \$21,000 each; 104

corporate memberships, at \$26,000 each; and 200 social memberships at \$4,000 each.

Manley's plans for the club also include a clubhouse with formal dining room, a casual bar and grill, pro shop, men's and women's locker rooms, and a swimming complex.

Manley, who hopes the course will someday host a national tournament, said the 18th hole at Glenmaura National will be an unusual one. He plans a par-4, 390-yard hole that will play against the backdrop of a 25-foot rock cliff, with a cascading waterfall.

Illinois community annexes land, takes over project

LOCKPORT, Ill. — The Lockport City Council has annexed property that will become part of a 575-acre development of homes, a 27-hole golf course, a hotel and a conference center.

Construction of the proposed Broken Arrow subdivision will begin with the golf course, according to planner Robert A. Olson, of the Balsamo/Olson Group, Inc.

Plans call for 1,500 single-family homes, condominiums and town

houses to be built, with construction costs expected to reach \$250 million dollars.

Before it could claim the proposed subdivision as its own, the city had to annex 100 acres.

The 100 acres lie just north of a forest preserve, and thus served "as a bridge" allowing annexation of Broken Arrow.

City Attorney Ron Caneva said communities are allowed to annex land abutting forest preserves that are adjacent to city property.

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Pequot Indians may add course to casino resort

LEDYARD, Conn. — Having gone to the U.S. Supreme Court to defend its right to build a mall-style casino resort, the Mashantucket Pequot Indian Tribe says it may add a golf course to its reservation here as well.

The Mashantucket Pequots put this rural southeastern Connecticut town on the map in 1986 with high-stakes bingo, pulling in an estimated 350,000 out-of-towners per year for "Las Vegas" nights.

The U.S. Supreme Court recently declined to hear an appeal against the tribe's expansive mall casino plan by the state of Connecticut. That cleared the way for the tribe to build New England's only casino near its bingo parlor, and to make plans for a "destination resort."

One of the most definite elements of the resort's master plan, tribal leaders say, is an 18-hole golf course and clubhouse. However, no dates have been set to build the course.

Also envisioned is a bus parking plaza, a campground, several hotels, a conference center, a boathouse, and a museum that would feature educational programs about Indian life and culture.

Guinness gains OK to construct Arizona project

PHOENIX, Ariz. — Arizona Gov. Fife Symington has cleared the way for Guinness Enterprises to build a resort and golf course in Arizona.

Symington signed a new law that allows liquor companies to build resorts, thereby revamping a state Depression-era law that prohibits a liquor maker from being a retailer.

Under the new law, liquor companies like Guinness, the Scottish firm that makes Guinness Liquors, can meet the qualifications needed to build a resort in Arizona, provided the resort has at least 50 rooms and includes an 18-hole golf course.

The firm also must serve at least three brands of alcohol in addition to its own, and hire an independent company to manage its retail-liquor business.

East St. Louis resort complex, with 3 courses, has huge price tag

EAST ST. LOUIS, Mo. — A resort complex that would feature three golf courses is being planned for the East St. Louis riverfront.

The cost of building the three, 18-hole golf courses is estimated at \$20 million, with construction cost of the entire resort package expected to rise to several hundred million dollars.

The group of developers who have proposed the project reportedly are considering one 18-hole golf course designed by Jack Nicklaus, one designed by Hale Irwin or Arnold Palmer, and one designed by a black professional golfer.

The three courses would be built on a 600-acre site.

The project might also include apartments, condominiums, homes for senior citizens and a business conference center on 700 adjacent acres. A marina, restaurants and a ferry also may be built.

The developers, who include United Food and Packaging Corp. President Don Wolfsberger and St. Louis developer David A. Wilhelm, want to locate the 1,500-acre complex across from the city's Gateway Arch.

While state officials hope to convince the federal government to extend the national park on the grounds of the Gateway Arch across to the East St. Louis riverfront, the developers say they will cooperate with the state plans.

"You can wind a golf course around anything," Wolfsberger said. "Whatever they do is fine with us."

Envirotron lab fund drive approaches goal

GAINESVILLE, Fla. —The Florida Turfgrass Association is moving closer to its goal of a fall ground-breaking on a state-of-the-art turfgrass research facility.

FTA Executive Director Bob Yount said the proposed 3,100-square-foot Envirotron Research Laboratory will be built on one of three sites being considered at the University of Florida in Gainesville.

Yount said \$700,000 has been raised to build the facility, thanks to donations from private companies and approval of \$350,000 of matching funds by the Florida state Legislature. But, he said, more is needed.

"\$700,000 just buys the bricks and mortar," Yount said. The FTA must raise at least \$100,000 to pay for equipment and furnishings. And while \$75,000 has been raised to fund a research fellowship, Yount said his group needs to add \$25,000 to that number to be eligible for a matching grant program.

Panel says design will return to classic roots

By Bob Spiwak

TUCSON, Ariz. — Architects will combine the best of old and new ideas and design "some of the best courses ever built," Gary Panks told golf writers from the United States and British Isles here in mid-May.

Panks, a Tucson-based architect, was part of a three-member round table that told participants in the World Writers' Cup that changes in design and philosophy are imminent.

The thrust, if not consensus, of the dialogue was that there is a

need to stop building "trick" courses and return to basics, as manifested by such architects of the past as Donald Ross, A.W. Tillinghast and Alister Mackenzie.

Panelists Barry Palm of the Arizona Golf Association and the founder of the Donald Ross Society advocated a return to the classic type of design.

Panks cited Pete Dye as a "creative genius," and said he learned a lot from Dye's designs. But, with many courses so expensive to build and maintain, golfers could be priced right out of the market,

Panks said.

"In the next decade you'll see some of the best courses ever built, taking the best of the old and the new (designs)," he said.

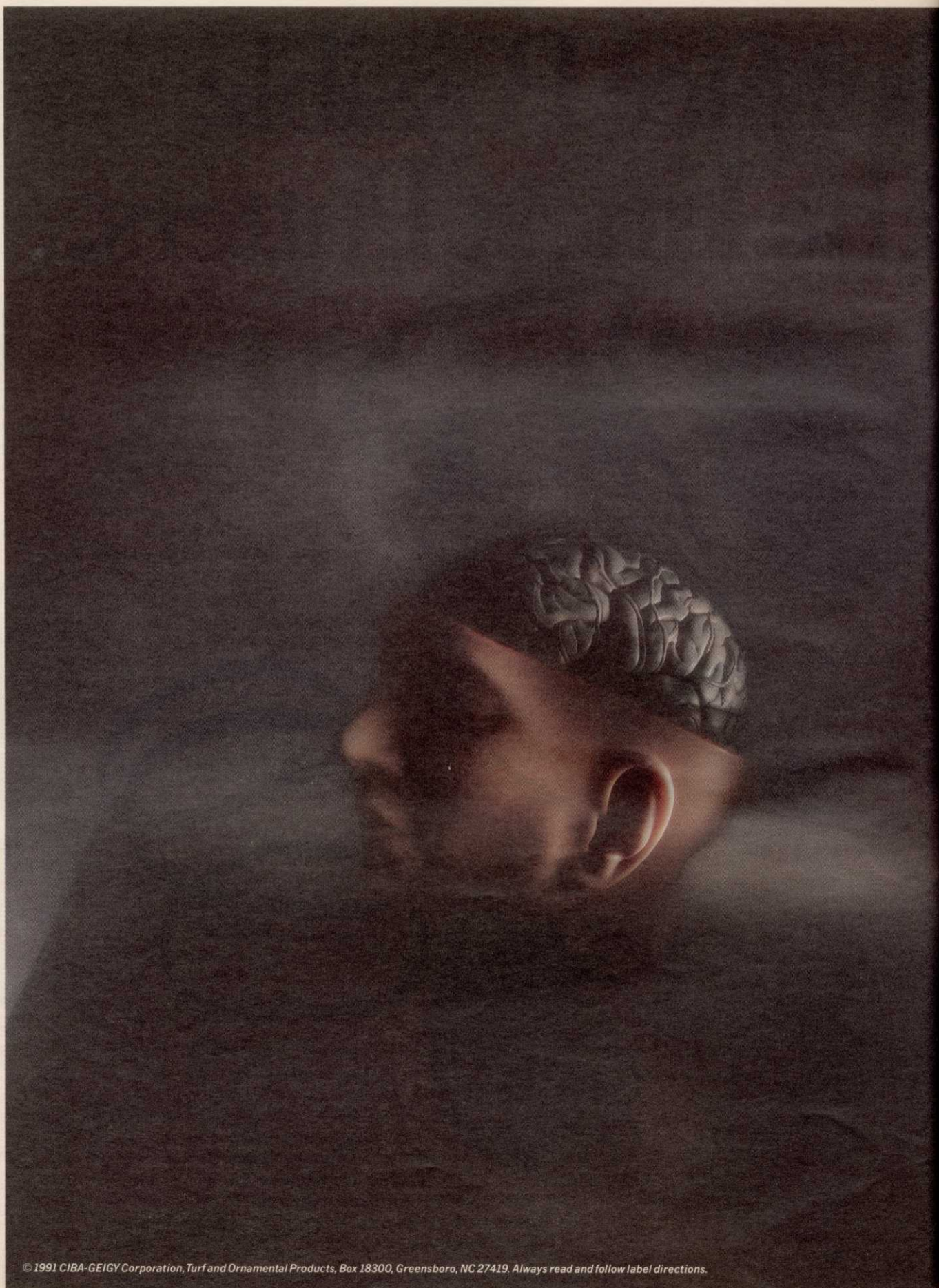
Referring to courses that leave few, if any options for the golfer, architect Ken Kavanaugh said: "Standing on a tee and being told what to do is like waking up and having to go to work."

Palm, whose 2-year-old Ross Society has 350 members, said he began the organization because "I felt the preservation of the original Ross courses was important."

Many of the 20 writers — whose handicaps ranged from five to 36 — were critical of the nearby Jack Nicklaus-designed course at La Paloma, where the teams stayed. Most felt playing the Nicklaus venue was more of a difficult chore than an enjoyable experience.

Moderated by Arizona Golf Association Executive Director Ed Gowan, the round table stretched far beyond the scheduled 1 1/2-hour.

Organizer Parker Smith said it would be included in future Writers' Cup agendas.



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ASGCA votes in Beebe, Gleason, Moote, Muirhead and 3 others as associates

The American Society of Golf Course Architects elected four new regular members and three associate members at its recent annual meeting in Canterbury, England.

New associate members are James Lipe of North Palm Beach, Fla.; Thomas Johnson of Braselton, Ga.; and Andrew Raugust of North Palm Beach, Fla.

The regular members are: Michael Beebe of Middleburg, Fla., Michael Gleason of Pinehurst, N.C., David Moote of Brampton, Ontario, Canada, and Gregory Muirhead of Montclair, N.J.

Beebe, employed by McCumber

Golf, has designed Marsh Creek in St. Augustine, Fla.; The Vineyards, Naples, Fla.; Osprey Cove, St. Mary's, Ga.; and Edmonton Petroleum Club, Edmonton, Canada.

Gleason is associated with Dan Maples Design, Inc. His courses include Birkdale Country Club in Richmond, Va.; the Witch in Conway, S.C.; Providence Country Club in Charlotte, N.C.; Longleaf Country Club in Southern Pines, N.C.; Forsyth Country Club in Winston-Salem, N.C.; and Grandfather Golf and Country Club in Linville, N.C.

Moote's courses include The

Oaks of St. George (Ontario) Golf & Country Club in Club de golf Grand Falls in Grand Falls, New Brunswick; Downs at Cedar Creek in Woodstock, Ontario; Spruce Needles in Timmins, Ontario; Penryn Park Golf Club in Port Hope, Ontario; Club de Golf Ile Perrot in Montreal, Quebec; Club de Golf Islesmere in Montreal, Quebec; and Club de Golf Beloeil in Beloeil, Quebec.

A designer with Rees Jones, Inc., Muirhead's courses completed while an associate member include Sea Trail Golf Link in Sunset Beach, N.C.; Charleston National Country

Club in Mt. Pleasant, S.C.; Congressional Country Club (Blue Course) in Bethesda, Md.; Penninsula Club in Cornelius, N.C.; Country Club of New Seabury (Blue Course) in New Seabury, Mass.; Atlantic Golf Club in South-Hampton, N.Y.; and Colonial Williamsburg in Williamsburg, Va.

Lipe has served as designer for the following courses: Melrose Golf Club in Daufuskie Island, S.C.; Pawley's Plantation in Pawley's Island, S.C.; Pinehurst (N.C.) National Golf Club; Governor's Club in Chapel Hill, N.C.; TPC Michigan in Dearborn, Mich.; Long Bay Club,

North Myrtle Beach, S.C.; and Richland Country Club in Nashville, Tenn. Lipe is employed by Jack Nicklaus Golf Services.

Johnson's courses include Bent Tree golf Club in Sunbury, Ohio; Eastport Country Club in North Myrtle Beach, S.C.; Chateau Elan Golf Club in Braselton, Ga.; Veterans State Park Golf Course in Cordele, Ga., and Sasakami Cayman Golf Park in Japan. Johnson is a designer with Denis Griffiths and Associates.

Raugust is associated with Golden Bear International, Inc. He has helped design Windsor (Canada) Golf Course; golf de Messane, Vendargues, France; Nordcenter, Aminnefors, Finland; Laukaan Peurunkagolf, Kuntoutumis, Finland; Bing Maloney, Sacramento, Calif.; Waikapu, Maui, Hawaii and Luzarches, Luzarches, France.

Storm drainage basin may undergo major metamorphosis

LODI, Calif. — The Lodi Parks and Recreation Department has designs on one of the city's old storm drainage basins. The Commissioners think it will make a great golf course, and have voted to turn the basin into a par 3 course and driving range.

While the final decision belongs to the City Council, Parks and Recreation board members say turning the basin into a golf course could pay for itself.

The land would be leased by a golf management company, responsible for developing and maintaining the facility. Once set up, the company would pay the city to lease the golf basin.

Parks and Recreation Department members say the golf course/drainage basin could be ready to go within two years.

\$1B complex in Caribbean to include golf

ISABELLA, Puerto Rico — The largest golf and tennis resort development in the Caribbean is under construction here.

Costa Isabella, a \$1-billion, 2,500-acre vacation and residential complex, will feature five golf courses and 36 tennis courts, as well as a spa and health club.

Located near the northwest coast of Puerto Rico, the complex will offer hotels run by Four Seasons Hotels and Resorts, Biltmore Hotels, the World Leisure Corp., and Marriot, among other big name companies. Over one thousand hotel rooms are planned.

Costa Isabella is scheduled to open in late 1992.

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Courses should teach etiquette, add signs, rangers

It seems every summer the topic of slow play is raised. With more and more golfers—more beginning golfers—slow play will continue to be discussed and commented upon.

Recently, I had yet another experience that reinforces the need for continued discussion, new ideas and continued education for the golfing public.

Although not a bad experience, it was typical of the new golfer not knowledgeable in golfing etiquette. While playing a quick round with my brother at a public facility, we had played five holes in less than 40 minutes when we caught up with a foursome, three obviously beginners. After waiting 10-15 minutes

on holes 6, 7 and 8, and after seeing four tee shots fly into woods and water hazard, I invited myself to play through. Reluctantly, the group allowed us through but later hit into us on a par 3, which could have caused injury.

There are several ways to educate the golfing public to speeding up play. The fundamental rule is to allow faster players through. This is well stated on signage and on the



Charles von Brecht

scorecards at the facility we played.

Here are a few more suggestions for educating the new golfers so that everyone will enjoy the game:

1. More signage. All par 3s should have signs to alert players on the tee to hit before the players on the green putt out. The signage should also note that faster players may play through.

2. As I've mentioned, when rangers are not available, members of the groundscrew might monitor play and give direction—particularly when there are a few holes open ahead of two or three foursomes.

3. I disagree with time limits per hole; there always will be five-hour rounds at busy public facilities, but

if we all offer better education to the golfing public, perhaps we can work to make these longer rounds more enjoyable.

The recent death by lightning at the U.S. Open is a tragic example of the danger of not heeding educational messages to the golfing public (in this case, the gallery.)

How many times have we heard not to take cover under a tree in case of lightning? Although, I am sure, many lives have been saved by the education provided by the USGA, PGA and the PGA Tour, this tragedy should make us aware of the importance of continuing education for golfers and gallery.

COMMENTARY

Preaching to the converted doesn't spread truth

"It's like preaching to the converted," Dr. Richard Cooper said after speaking to lawn-care and seed industry people at Lofts Seed Co.'s field day in Martinsville, N.J., June 12.

The crowd had agreed wholeheartedly as Cooper showed results of several university tests showing chemical use on turfgrass does not lead to pollution of ground or surface water.

If Cooper had given the same speech to environmental activists he might have dressed in a slicker to protect himself from a barrage of tomatoes.

In the whole spectrum of humanity, Cooper said afterward, there are people to the far left and people to the far right on any one

issue. They won't listen, won't budge from their viewpoint—no matter if the sky falls all around them and their beliefs.

The other 90 percent will listen to reason, wisdom and knowledge. They will listen to a body of knowledge, to the results of scientific study.

Environmental activists, Cooper said, are philosophically opposed to use of pesticides. No amount of evidence will change their mind.

The "converted" in this instance are people working in golf course



Mark Leslie

maintenance, landscaping and lawn care who rely on a certain—though increasingly smaller—amount of pesticides and fertilizers to do their work. They have been joined by some of the "90 percent uncommitted" who have seen the statistics, heard the arguments, and agreed with studies like those at Penn State, the University of Rhode Island, and on Cape Cod.

Yet most of that 90 percent uncommitted stand out in the midst of a storm of words, swayed left or right by the bent of the speaker.

It seems someone somewhere will always take a stand for something. "Since barbarism has its pleasures it naturally has its apologists," Spanish-born poet and philosopher George Santayana once

said.

Yet, wisdom and understanding are "a tree of life to those who embrace her; those who lay hold of her will be blessed," we're told in Proverbs 3:18.

The golf industry has to stand on wisdom and understanding, particularly on such divisive issues as chemical use. We can speak to one another until the sheep come home but it won't win a single "convert." The message has to go out to the public.

Hats off to Dick Drew, superintendent at Olde Salem municipal golf course in Salem, Mass., who spoke out when opponents rose up against an expanded course because of concern over chemical use.

Continued on page 11

GUEST COMMENTARY

The pro's side of the superintendent-pro coin

By Gene P. Smith

"Hey, Pro, what's wrong with the greens today?" "Why is the back nine closed?" "What's that strange smell on the course?" "Why is there a big hole in the middle of four fairway?"

These are just a few of the hundreds of questions members and guests ask the golf professionals when something unusual takes place on the golf course. The pro's credibility will be tested with each question, and without an intelligent, informative answer, that credibility could vanish.

Knowing what is happening on the course and why is as important as knowing how to fit a set of clubs, run a tournament or give a lesson. Only one person can properly inform the pro on course activity and that is the superintendent. With his help, the pro will be able to answer the many questions about the condition of the course and what activity might be taking place.

A good relationship with open communication is essential between

the pro and superintendent. Meeting regularly, playing the course together and discussing present projects and future plans will keep the pro informed of what chemicals are being applied to the course, when aeration will be taking place, when the irrigation system is being repaired, etc.

Throughout my 21 years as a golf professional I have heard the horror stories of greens being aerified the day before a member-guest tournament. At times there seemed to be a "we vs. they" attitude between pros and superintendents.

In recent years I have seen this attitude change to the extent that we see each other as part of a team with a common goal, which is to provide the best possible playing conditions for our members and guests.



Gene Smith

The educational clinics and seminars conducted by the PGA of America and the Golf Course Superintendents Association of America have enhanced the understanding of the roles we each play in working toward a successful golf operation.

Understanding each other's responsibilities is essential in cultivating a working relationship between these two key individuals. The pro is usually the first person a golfer sees in the pro shop and the person most likely to be asked any questions about course conditions and playability.

He is in a position to make the superintendent look like a hero or someone who is less than competent.

Conversely, the superintendent is in the same position in regards to how his crew reacts to the golfers on the course. If play catches the fairway mower and the maintenance worker has no regard for the golfers, it could be an ugly scene in the pro shop after the round.

One important duty on the course

is proper marking. It's hard enough to get golfers to play by the Rules of Golf, but put them on a poorly marked course and it becomes impossible.

I generally prefer marking the course myself or allowing my assistant professionals to prepare it for tournaments. It becomes important when the crew begins mowing around boundary markers or hazards stakes that they get replaced immediately. The crew must understand why this must be done.

Mutual respect, cooperation, communication and teamwork are the necessary ingredients to a successful relationship between a golf professional and superintendent. Without these, one or the other, or both, could find themselves searching for a new position.

Gene Smith is the golf professional at DeBary Plantation Golf Club in DeBary, Fla. He is president of the North Florida Section of the PGA and is a member of the National PGA Rules Committee.

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Landowners join forces in 2,000-acre development

NEW GARDENTOWNSHIP, Pa. — A group of major landowners here have gotten together on the future development of 2,000 acres of land bordering Pennsylvania and Delaware.

Comprehensive plans drawn up by the group include construction of an 18-hole golf course, along with a retirement village, hotel-conference center, town center, and luxury homes. The development is to be named Kaolin Commons.

The four landowners would each develop their own individual properties in keeping with the master concept, and own and operate them independently of the others.

The first project likely to be built is the golf course, plans for which are going through the approvals process.

Comment

Continued from page 10

Drew educated residents by telling the Salem Evening News how he safely applies chemicals, trying "to apply the bare minimum" at all times.

Superintendents are the experts, the hands-on appliers to whom the public will give credence. More should tell the media their side of the story in local debates.

In the end, it's "the people" — that 90 percent — who need to be preached to. When Billy Graham speaks to a crowd of a hundred thousand in China, he edifies the believers — but his ultimate target is the unconverted. When they come forward to receive He who is the Truth, that's when it is time to rejoice.

Chemical use is, of course, a much less important issue than salvation. Yet the basic principle is the same: Let the truth prevail. There will be those in the crowd who are ready to hear, and to be convinced, convicted and converted.

USGA

Continued from page 1

we can look at the next five to 10 years as finding hands-on products. And we can concentrate on breeding grasses that haven't received a lot of attention. Buffalograss, for instance, will be a hit."

He said the funds will probably continue to support research the USGA is backing today.

Meanwhile, the Green Section will send out requests for proposals in August, then narrow those down for a Research Committee meeting in December. Finalists will then be asked for full proposals, and the funding decisions will be made in mid-1992.

"We're excited the Executive Committee has committed itself to this program. It will help very much environmentally," Snow said.

GOLF COURSE NEWS



"We need to improve the drainage on this green."

Enthusiastic reading

To the editor:

More than a month ago I received a copy of *Golf Course News*.

It was with enthusiasm that for the first time I read your publication. I congratulate you on what I feel is the most informative golf course publication, geared to golf course maintenance, that I have read in recent years.

Yours for better golf turf,
Thomas L. Malehorn
Sales Representative
Pro-Lawn Products, Inc.

10 woes story good

To the editor:

I enjoyed Peter Blais' coverage

of agronomist James Connolly's talk at the recent Maine Golf Turfgrass Conference and Show in Portland.

I commend you on your publication, both from an editorial and graphic perspective. It has a lot to offer, and I enjoy reading publications such as yours.

Sincerely,
Ralph Turtinen
Executive Director
Minnesota GCSA

Letters accepted

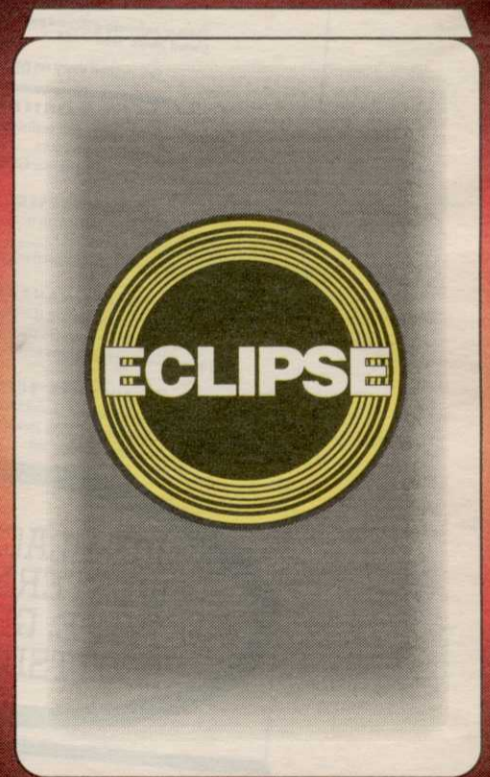
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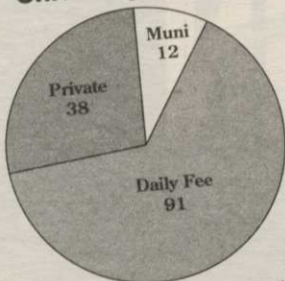
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SEED AND SOD
A special look at research and the marketplace

USGA promises another \$4.1M

Executive Committee promises continued support through 1997

By Mark Leslie

The U.S. Golf Association Executive Committee has approved another \$4.15 million in funding for research projects. Revealing the decision made on June 10, USGA Green Section National Di-

rector Jim Snow said he was excited at the committee's high level of support for the research program.

The committee this winter allotted \$3.8 million to 18 research projects through 1992. That will complete the 10-year program that began in 1983.

This new infusion of funds will carry research from 1993 to 1997, Snow said. Accomplishments so far have consisted mostly of findings that set the foundation for further studies, Snow

said. He cited the Turfgrass Information File at Michigan State University, which "is a tremendous resource for the entire industry and is just now catching on"; development of NuMex Sahara bentgrass and 609 buffalograss; and investigation of breeding improvements such as screening for salt.

"These are things you can't visually see, but that were important research," he said. "We're at the point now where

Continued on page 11



The University of Wisconsin has joined the growing ranks of universities with affiliated golf courses. This is a view of its new Robert Trent Jones Jr.-designed course, which officially opens in July. See a story on university courses on page 33.

Winter whacks Washington courses with winter kill

By Bob Spiwak

Yoyo-like winter temperatures caused winter kill that devastated greens on northern Washington State courses, costing tens of thousands of dollars in repair bills and lost revenues.

The Spokane area, which boasts some of the nation's best municipal courses, was hit the hardest. Indian Canyon, perennially listed among the

top U.S. venues, counted at least half its greens this spring as "browns." And it was not alone.

In fact, courses that fared best had newly planted bentgrass, or were blanketed with snow throughout the winter. Most severely damaged were courses with incursions of poa annua (annual bluegrass) and little or no snow

Continued on page 13

Mass. enacts new pesticide mandates

By Vern Putney

The Massachusetts Department of Food and Agriculture will require all private and commercial pesticide applicators to file an annual report listing specific pesticide use information based on previous year records beginning in 1992.

The records will be made available to the 351 cities and towns in the Bay

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Seed scientists making great strides

By Mark Leslie

While plant breeders are making extraordinary advances in turfgrasses, scientists are probing and developing other improvements using nature's endophytes and nematodes and new

See related stories p. 20-26.

techniques like seed priming and coating.

"A lot of very bright and talented young people are going into turfgrass research," said Dr. Reed Funk

of Rutgers University, an expert in cool-season grasses. "They will do a lot of things that haven't been done.

"Priming," he added, "could be developed to be a delivery system for micro-

Continued on page 20

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Briefs



CADMIUM REVIEW CANCELED

The Environmental Protection Agency has announced termination of a special review on the fungicide cadmium chloride (Caddy, Liquid Cadmium Turf Fungicide) because of voluntary cancellation of the only remaining cadmium chloride pesticide registration by its producer, W. A. Cleary Corp.

According to EPA, "No cadmium chloride product may be sold, distributed or released for shipment by the registrant after July 31, 1991, and no cadmium chloride product may be sold or distributed by a retailer, dealer or any person after Dec. 31, 1991.

"Golf courses or end-users may not obtain or take possession of cadmium chloride product after Dec. 31, 1991. Supplies in their possession as of that day may be used until exhausted."

LEAK DETECTOR DEADLINE EXTENDED

The Environmental Protection Agency has extended to Sept. 22 the deadline for installing automatic leak detectors in underground storage tanks that have pressurized piping systems.

The extension applies only to installation, on underground pressurized piping systems, of leak detectors that meet EPA's minimum performance requirements.

CHEMICAL REGISTRATION MAY BE CHANGED

The Environmental Protection Agency's new four-year strategy recommends establishing slow and fast tracks for processing chemical registrations.

Under the EPA Office of Pesticide Programs recommendations, "safer pesticides" would be allowed on the "fast track," insuring quicker release to the marketplace.

More hazardous pesticides would be put on the slower registration track.

The strategy also calls for increasing availability of information and public awareness concerning pesticide risks, effectiveness of pesticide management programs, and the options for pest control.

RINGER RECALLS GRUB ATTACK

Ringer Corp. has announced voluntary recall of its Grub Attack product which employs bacillus popilliae (milky spore disease) and is used for the control of Japanese beetle grubs.

Grub Attack is marketed only in the northeastern United States and is the only product sold by Ringer which uses bacillus popilliae.

SORENSEN HEADS BIOTECH PANEL

WASHINGTON, D.C. — Dr. John Sorenson, executive director for Vegetable Research for Asgrow, is the chairman of the American Seed Trade Association's recently formed Biotechnology Committee.

Voc-tech school starts maintenance course

By Thyra Porter

WINTERGARDEN, Fla.— With more than 1000 golf courses located in the state, Florida educators have realized that golf course maintenance skills can help high school students find jobs, and perhaps careers, after graduation.

Now the first vocational-technical school to offer turfgrass operations courses to Florida high school students plans to gear those courses to adults already working in the field.

Mike Armbruster, instructor of turfgrass operations courses at Westside Vocational Technical Center, said the school has offered the courses to high school students for the past four years. Seventy percent of the graduates go on to find jobs in the field, Armbruster said.

While adults can enroll in the courses offered to younger students, Armbruster said most classes are held during the day, making it difficult for those already holding down jobs to attend.

Still, Armbruster noted, many golf course workers would benefit from adding additional skills.

"We're not trying to train superintendents here. We're trying to train people who work below superintendents," Armbruster said. "We're looking to train good employees."

Under Armbruster's program, adult students get on-the-job training during the day, working out a schedule with their employers to ensure varied experience through the work day.

"We want to make sure they get exposure to each of the elements," Armbruster said.

Though a worker may have a primary responsibility, instructors want to introduce other aspects of greens care over the length of the course. "We don't want someone locked into the weedeater for a year," he said.

Steve Wright, superintendent at Alaqua Country Club in Longwood, Fla., is trying to help Armbruster line up superintendents to teach night courses at Westside VoTech. Wright said offering turf operations courses to students and adults ultimately helps managers, by providing a more skilled labor pool.

"It's hard to find workers for the lower-level starting positions with any skills," Wright pointed out. "Everyone said 'I've mowed lawns before,' which is great, but it doesn't pertain to this."

Both high school and adult students receive certificates of completion, Armbruster said. The turfgrass operations year (two years for high school students who attend classes for half the day) covers a nine point program of goals set by the Florida Department of Education.

Armbruster said students learn to maintain greens, tees, fairway roughs, and traps; repair and service turf equipment; fertilize turf and control turf pathogens; plant and maintain grass, trees, flowers and shrubs; keep records; and demonstrate proficiency in the basic math, science and communications skills needed in agricultural problem-solving.

Kishwaukee adds golf horticulture

MALTA, Ill. — Kishwaukee College has expanded its horticulture course offerings to include classes in golf course management.

The community college's horticulture instructor, Larry Marty, foresees a great employment future for students who study greens care.

"It's an exciting career," he said, citing a study by the National Golf Foundation that predicts more than 30 million golfers in the United States by the year 2000. To accommodate those new golfers, the study found that 4,000 additional golf courses will need to be built. That translates to jobs for workers of all ages, Marty said, not just the traditional college student summer job.

Marty's students study golf course design, pesticide safety, equipment maintenance, computers and landscaping.

"The golf course superintendent today needs to be more than a grass cutter. He must manage his people, the budget and the environment," Marty said.

To help students along, Westside is planning to build what Armbruster calls a "par three, par four golf green," with two sets of

Continued on page 15

Washington supers scramble vs winter kill

Continued from page 1

cover, as in Spokane.

In the Spokane suburb of Cheney, the Fairways course had no damage at all on its renowned Pennncross bentgrass greens, even though, as a prairie course, it is susceptible to high winds and cold temperatures.

Two hundred miles east, in the Cascade Mountain foothills, Bear Creek, with predominantly Pennncross greens, suffered only in areas where poa annua had invaded. But Bear Creek also had a blanket of snow more than a foot deep.

Along the Columbia River, which enjoys milder temperatures, Lake Woods and Lake Chelan, snowless in March, suffered extensive damage.

All was fine in the Northwest until an unseasonable thaw in February sent temperatures rising across the state. The grasses awoke in the warmth and were promptly blasted by a killing March freeze. Poa, being shallow-rooted and not at all cold-tolerant, died immediately. Most of the greens on the Spokane municipal courses are heavily weighted to the annual bluegrass.

Fairways superintendent Chris Becker said he monitored his greens daily during the thaw and subsequent freeze. There was no snow cover at the course, and he was concerned with desiccation (in which case he applied water to the surface) and disease.

But, Becker "... put the turf to sleep for the winter in an unstressed condition. We applied the proper nutrient and fungicide applications in the fall, along with raising the height of the cut," he said.

The assaulted putting surfaces meant lost revenue to the city of Spokane as well as the pro shops. Revenues were down about 30 percent at Indian Canyon, Downriver and Esmeralda.

Play in mid-May was running 15,000 rounds



Bob Spiwak photo

A golfer checks a lie on a Spokane course green which is mostly dirt.

behind 1990 as golfers sought a better venue on which to putt — places such as Robert Muir Graves' Meadowood, a 3-year-old county course with bentgrass greens; Painted Hills; and Fairways.

All are 5 years old or less and essentially devoid of poa.

A case in point is the private Manito course on Spokane's South Hill. Five of the greens were rebuilt a few years ago and seeded with bentgrass. They emerged the winter unscathed, while the other greens, largely poa, were extensively damaged.

Indian Canyon head pro Gary Lindeblad, who hosts the prestigious Roseaur's Spokane Open in July, said the Canyon was considering applying one of the new pre-germinated seed formulas on the greens.

"They claim the greens are playable two weeks after application," he said.

Golfers in the area are not abashed at placing the blame on the city Parks Depart-

ment, which oversees greenskeeping at the municipal courses.

"They are civil servants," said one. "They get a check every 40 hours. What do they care about the greens? And look at the cart paths. They're a mess."

The cold spring weather did not help efforts to get the courses back in shape. Cold nights retarded germination of new seed, and above-average rainfall also slowed recovery and added to compaction.

City officials point out that increased numbers of players have heightened stress on courses, which were not designed for the heavy play they have been getting.

To prevent lost greens in the future, officials are considering blankets that cover the entire green, and mulching with straw. But, the huge blankets make mowing and maintenance difficult, and use of straw, some agronomists claim, is an invitation to a host of diseases.

To the Tour and back, Buchen puts down roots

By Vern Putney

GALENA, Ohio — Associates long have needed R. Terry Buchen as "the traveling man," a golf course superintendent with unbridled wanderlust.

Having about "done it all," Buchen now is ready to settle down and settle in. He's joined the staff of Double Eagle Club, a new Jay Morrish/Tom Weiskopf design under construction outside Columbus.

Wife Debbie and daughter Elizabeth, 5, welcome his intended new lifestyle. Buchen will have many treasured memories to savor, especially a stint as associate agronomist for the PGA Tour in 1979-80.

"It was the greatest experience of my professional life," declared Buchen. "Working with head agronomist Allan MacCurrach and meeting other superintendents who hosted Tour stops was a tremendous learning process."

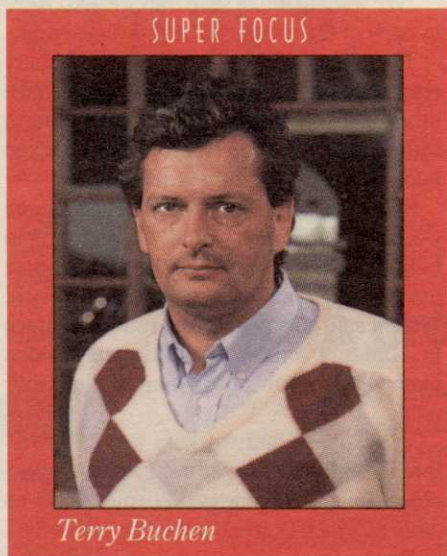
From his Jacksonville, Fla., Tour office base, Buchen as advance man and agronomist on all regular Tour events zipped to 20 states and Canada four to eight weeks prior to each event. About 60 percent of his duties were agronomic, the rest administrative.

"I guess I symbolized the word 'peripatetic,'" mused Buchen, "though colleagues preferred the term 'gypsy.'"

Buchen noted that the PGA Tour has some great tournament specifications that try to make playing conditions consistent week to week. "Mowing heights, widths, speed of greens, etc., make for fascinating study and research."

He also witnessed construction of the original Tournament Players Club at Sawgrass in Jacksonville, Fla., and observed at close range the changing of a virtual swamp into a famous golf course. Watching Pete Dye and Deane Beman design the course approached an art form, he said.

Buchen was delighted that the nation's press heaped praise upon Sawgrass superintendent Fred Klauk for grooming the course to perfection last March, especially after the Fourth Estate had nearly flooded Klauk in a sea of soiled ink the previous year.



"Klauk merited the kudos," Buchen said.

From 1977-84, Buchen was a member of the USGA Green Section Greens Committee. With the USGA agronomists, he assisted in valuable services to golf course superintendents.

During the 1984 U.S. Open at Winged Foot Golf Club in Mamaroneck, N.Y., Buchen was a member of the Rules of Golf Committee. Sitting in with the distinguished likes of P.J. Boatwright, Tom Meeks, Dye and other rules experts provided tremendous insight.

Watching superintendent Bob Alonzi and his staff prepare the course for a major championship was fun and stimulating, he said. Renowned award-winning, widely honored course superintendent and author Sherwood A. Moore, now of Brewster, Mass., added his considerable talents.

Bolstering third-generation superintendent Buchen's extensive background was overseeing construction projects across the country as the golf course superintendent and owners' representative.

Buchen first worked as an assistant superintendent at the Playboy Club-Hotel in Lake Geneva, Wis., on the Briarpatch Golf Course designed by Jack Nicklaus and Dye.

He was promoted to his first

"Working with head agronomist Allan MacCurrach and meeting other superintendents who hosted Tour stops was a tremendous learning process."

— Terry Buchen

superintendent's position at the Playboy Club-Hotel at Great Gorge in McAfee, N.J., a new George and Tom Fazio creation.

Tom Fazio "launched" their careers together in 1970, Buchen said.

Buchen also worked with architect Ted Robinson on the Sunrise and Rancho Las Palmas Country Club's in Ranch Mirage in the Palm Springs area of California; Nicklaus at Castle Pines Golf Club in Castle Rock, Colo.; Tom Fazio at The Golf Club of Oklahoma in Broken Arrow and at Golden Eagle Golf Club, Tallahassee, Fla.; Pete and Perry Dye at Glenmoor Country Club in Englewood, Colo.; and Morrish and Weiskopf at Willowbend Golf Club in Wichita, Kan.

In his present post the past 11 months, Buchen again is hooked up with Morrish and Weiskopf in overseeing construction. Double Eagle is an exclusive private club of tournament-caliber course design 25 miles northeast of Columbus.

"I've learned much of growing desirable golf course grasses throughout the country," Buchen said, "and have profited immensely from working with and observing some of the best golf course architects in the world."

Buchen still marvels at his good fortune in the industry with which he literally grew up.

Raised in the Chicago suburb of Glenview, he graduated from Penn State University in 1968.

He lived at the old Chesterfield Country Club in Glenview, later sold to the city and renamed Glenview Park Golf Club.

His grandfather was the superintendent, his dad the head professional/assistant superintendent, his mom the club manager and his sister the driving range operator. Buchen began mowing the greens at age 6.

Though he has put down firm roots at Galena, Buchen still is seeking challenge on

the international scene. Since last December, he's concentrated on a Master Greenkeeper Certificate from the British and International Golf Greenkeepers Association, of which he's been a member since 1984.

The MGC is equivalent to Certified Golf Course Superintendent status with the Golf Course Superintendents Association of America. Three areas must be achieved before a certificate is issued: meeting the proper educational and experience requirements; an on-site inspection visit and evaluation of his golf course, and passing a rigid test of all facets of golf course management.

As soon as the golf course is grassed and in playable condition, the on-course evaluation will be completed. The written test then can be accomplished.

Filling in "free" time other than with his family includes playing and rating golf courses for Golf Digest, and writing trade magazine articles on golf course maintenance.

During the early and mid-1980s, Buchen was a frequent contributor to Golf Course Management magazine.

A sense of humor and a light touch balance serious tomes. He hosted an annual Christmas party for friends in the golf business called "Let's Get Bombed on Pearl Harbor Day Celebration."

A festive occasion started last year and scheduled as an annual March event is dubbed "The Millard Fillmore Celebration."

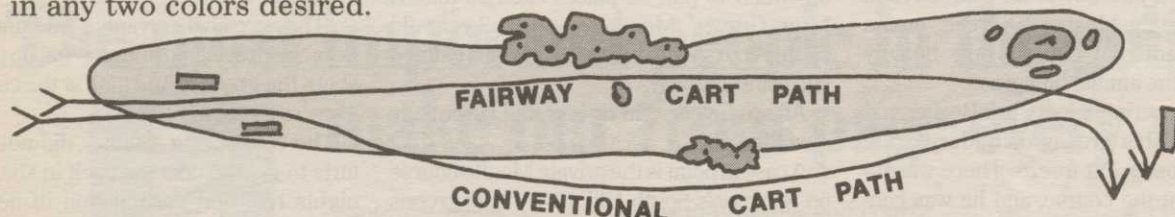
Millard is not the most memorable of our former presidents, but the golf gala adds a bit of spice to one regarded as somewhat dull.

Buchen's more serious membership affiliations include: GCSAA, since 1968; CGCS, 1978; Pennsylvania Turfgrass Council, 1974; Penn State Turfgrass Alumni Association, 1971, and Golf Writers Association of America, 1984.

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PLCAA president seeks closer ties with GCSAA

By Peter Blais

Neal DeAngelo expects the lawn care and golf industries to work more closely in the coming years, especially in the area of chemical application.

"A solid relationship has been building over the past two years with the two industries having many common interests and positions," said the new president of the Professional Lawn Care Association of America and owner of Lawn Specialties, a professional lawn care company with offices in Hazleton and Allentown, Pa.

"We're primarily interested in the regulatory and legislative issues having to do with pesticide applications, particularly posting, ground water protection and worker protection."

DeAngelo, who is also president of the Pennsylvania Lawn Care Association, said the state lawn care group and the state superintendents associations have worked closely in the past. Both have developed position statements on chemical applications and will meet soon to determine where they can work together to promote common interests.

DeAngelo said he hopes similar exchanges will occur on the national level, although communication so far between national lawn care and superintendent associations has been limited to green industry coalition efforts both have been invited to attend.

"It would behoove both groups to work together on a national basis," DeAngelo said. "One of the PLCAA's major goals is to work with other organizations."

The PLCAA has been busy in Washington, D.C., this year.

The organization has closely monitored the Town of Casey vs. The State of Wisconsin, a Supreme Court case testing whether a municipality can institute chemical application regulations more stringent than the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). The PLCAA has successfully fought against municipal efforts at enforcing more stringent laws at lower court levels, DeAngelo said.

The national association has also lobbied to tone down elements of the Reid-Lieberman Senate bill dealing with posting and pre-notification of chemical applications.

And the PLCAA has offered in-

put into a General Accounting Office report focusing on lawn care industry advertising. The GAO report will be released later this year.

Stabilizing the PLCAA's membership has been another major goal for DeAngelo, who assumed the presidency in November. Total membership fell from a 1987 high of 1,324 to about 1,000 last fall. Approximately 100 new members have signed up since DeAngelo took office, and he hopes membership rolls will eventually include at least 1,500 of the nation's estimated 6,000

chemical lawn care companies.

A 1989 dues increase, ranging from 100 to 667 percent, drove many members from the association. Restructuring dues, especially for smaller companies, has helped attract new members, DeAngelo said.

The PLCAA has also introduced new products in the past few months, including a liability insurance and reinstatement of regional training.

Seminars, sponsored jointly with state associations, will be held July 10 in Wooster, Ohio; July 16 in Louisville, Ky.; July 18 in India-

napolis; July 22 in Billings, Mont.; Aug. 6 in Ames, Iowa; Aug. 7 at State College, Pa.; and Aug. 8 in Rochester, N.Y. The cost is \$40 for PLCAA or co-sponsoring association members and \$85 for non-members.

Updating the PLCAA's strategic planning process, assisting new Executive Vice President Ann McClure and helping organize this November's Green Industry Exposition in Tampa, Fla., have also taken much of DeAngelo's time.

After a successful inaugural Expo

in Nashville last November, the PLCAA has signed a three-year contract to continue the annual event in cooperation with the Associated Landscape Contractors of America and Professional Grounds Management Society. DeAngelo expects exhibitors and attendees to rise 10 to 15 percent this fall.

"I've really enjoyed my time as president," said DeAngelo, who will be succeeded by President-elect Bob Andrews of Carmel, Ind., in November. "It's been a lot of work, but it's worth it."

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CIRCLE #111

Voc-tech course

Continued from page 13

tees. School officials hope most of the estimated \$21,000 tab will be picked up by companies that donated needed materials, like sprinkler heads, with the rest of the cost covered by the school budget.

For Armbruster, best of all is that his turf operations course gives a direction to people who may not have known how to prepare for a career.

Most assume the great-looking golf courses they see on TV got that way by accident, Armbruster said. "But when they find out what goes on behind the scenes, it's really fascinating."

Golf course's water quality no issue for President Bush

(Editor's note: Contributing editor Vern Putney has these thoughts in the midst of the water quality issue facing the golf industry.)

By Vern Putney

The day President George Bush's thyroid condition was announced, he stepped smartly from his helicopter at his Walker's Point summer home in Kennebunkport, Maine, and strode to a nearby garden hose.

He drank copiously and smacked his lips.

Was he returning to his boyhood method of quenching his thirst, or making a statement?

Mainers like to think he was expressing continued confidence in drinking water long considered the world's best.

Water is undergoing intensive scrutiny in areas the Bushes have stayed for lengthy periods. Texas, Washington, D.C., and Camp David, Md., are high on the inspection list.

It is puzzling that wife Barbara also has the Graves' disease symp-

tom.

Once the president alighted, he was re-energized and "relaxed and invigorated as always by the sea," according to press secretary Marlin Fitzwater.

As further proof, Bush a couple of days later expanded his swift 18-hole routine at nearby Cape Arundel Golf Club to 27 with no sign of slowdown.

In perhaps sending a signal to physicians and scientists to look elsewhere for the source of trouble, Bush might have pointed to

Webhannet Golf Club in Kennebunk Beach, five miles away.

Roger L. Lowell, course superintendent there and president of the Maine Golf Course Superintendents Association, noted that the most recent test of the two wells at Webhannet proved the clearest and purest in their 20 years of existence.

"Members, of course, frequently tap these wells for their everyday needs as well as cooling moments during their golf rounds," added Lowell.

He continued: "With all we hear

about ground water quality, it's hard to understand the reasoning behind some movements so concerned about ground water contamination from golf courses. Of course, there is understandable concern for water quality around hazardous waste sites we see on television, where heavy concentrations can seep into the ground.

"Research reports of ground water quality on and around golf courses nationally, where testing has taken place, shows water to be at safe levels. The thatch layer produced by turfgrass restricts penetration of chemicals into the soil."

Edmund A. Muskie, former Maine governor, senator and secretary of state, long has appreciated Webhannet's liquid refreshment. His first course-side home was next to the clubhouse. He now lives little more than a mashie shot from the 14th green.

To the charge that Cape Arundel and Webhannet might be among courses wasting water, Lowell simply counters, "These layouts have no irrigation systems and perhaps no need for such setups. The fairways are green and trim, and hand-watering takes care of tees and greens."

Watching Bush bring the hose to his mouth in the most heavenly of simple pleasures, many a caddie of the early 1930s must have propelled himself back in time. Water then was largely for drinking.

All knew the best water in the world available to the general public had as its source nearby Sebago Lake, and that adjacent Poland Spring catered to the thirsts and palates of an elite world clientele.

Sebago Lake has given ground grudgingly to chlorides and fluorides as population expanded and boat traffic mushroomed. Poland Spring bottled water remains in demand worldwide.

To youths, however, surrounding golf course water holes held a special charm.

No longer can the thirsty tap golf course spring hideaways. Kneeling down to quaff cool, sparkling waters or turning on hoses placed strategically by golf course superintendents no longer is in vogue. Frequently tepid fountains and water stops have replaced the impromptu drink.

There are no cut-and-dried answers, but wrung from 60 years of golf course acquaintance are these observations.

- Water is over-used and abused. The rush to flood the courses in the post-World War II period reached tidal proportions. The price for that overflow reached high-water marks."

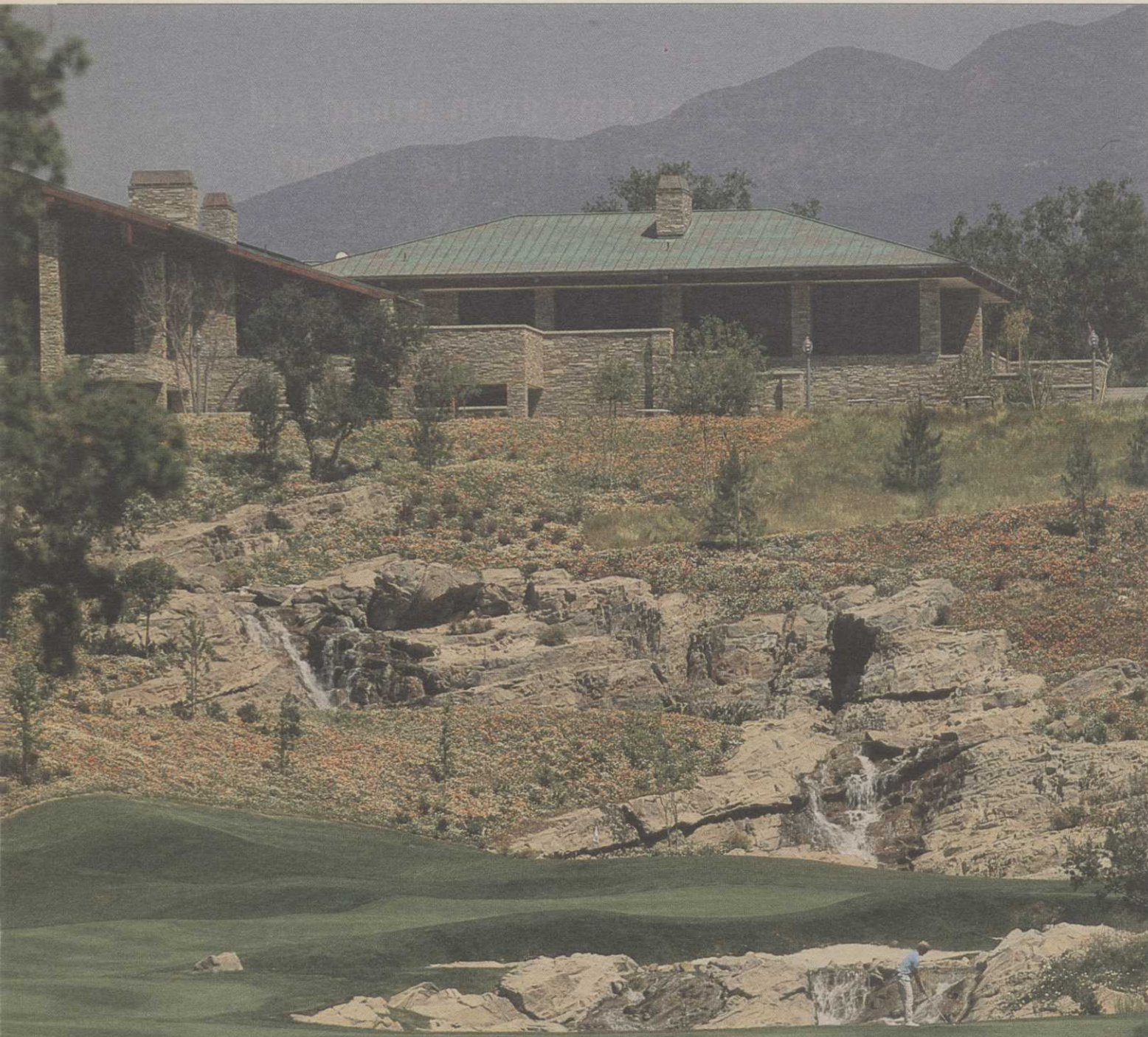
- Latest golf gimmick in the water connection-conundrum is advocacy of brown fairways, a copycat version of playing surfaces in Great Britain."

- Why not step back in time and go one more giant stride? Turn off the freely running hoses, shut down the automatic sprinkler systems and return the fairways to the near-white look of the 1930s."

What's that, you say? Golf courses that aren't a lush green?

Believe it or not, you devotees of

Continued on page 17



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di Giacomo

Mass. to require pesticide applicators to file annual reports

Continued from page 1

State. The Green Industry Council, a trade group that represents many of the state's superintendents, fears the information could be used to pass even tougher local pesticide laws.

"Professional pesticide applicators have seen an increasing number of cities and towns in Massachusetts adopt ordinances that look to further regulate the use of pesticides. The Green Industry Council strongly opposes this trend," said Phyllis Gillespie, the council's executive director.

eral Insecticide, Fungicide and Rodenticide Act), gives the federal and state governments the authority to regulate, Gillespie said. It recognized the problems that would arise if cities and towns had this authority, she added.

Gillespie said Massachusetts has a strong record of developing regulations that address public concern for safety and the environment, and stressed that the green industry has consistently complied with these regulations and supports equitable legislation and regulations to meet these objectives.

Ed McGuire, chairman of the council's Public Policy Committee, noted that with hundreds of inconsistent local regulations, developed by boards with little technical expertise and/or support, it would be very difficult for green industry professionals to comply with any new laws.

He cited the Town of Mansfield, which recently passed an ordinance requiring pink 11- by 8 1/2-foot signs posted every 50 feet around the property of lawns treated professionally with turf pesticides.

"This ordinance," McGuire said,

"clearly undermines and is overridden by the state regulation — 333 CMR 10.03 (30) and (31) — requiring yellow signs at the point of entry."

Information requested by the state will include product brand name; EPA registration; active ingredients; percentage of active ingredients product form (e.g. liquid, powder); use classification (general, state limited or restricted); total amount of concentrate product applied in reporting year; major crop or site treated; total acreage treated; target pests or class of

pests; and method of application.

Other Massachusetts requirements include:

- no applications of products on the Groundwater Protection List in primary recharge areas if an alternative exists;
- adoption of an integrated pest management program for all applications of products on the Groundwater Protection List in primary recharge areas; and
- an approved pesticide management plan before any soil application of a Groundwater Protection List product.

Bush

Continued from page 16

the game dating "only" from the 1950s, that unyielding surface commonly called "hard-pan" was the norm at most New England courses.

Players coped and adjusted, expected little different, and enjoyed. So the "divot" often was just a puff of dust?

• What were the advantages? Plenty. For openers, the course was playable three weeks earlier in the spring because it had been spared soaking not in Nature's scheme.

By June, the occasional rubber golf shoe had been mothballed. The golfer was on solid earth. Come September, the course was a delight—a fast track inviting low scoring. In late October and early November, leaves and the hunt for stray balls therein slowed playing pace a bit, but there was no slogging through mud as is the current practice. And it was nice to squeeze out another week or two of play, painfully aware that winter's grip soon was to replace golf's grip.

Unlike the modern playing strategy, which is to boom the ball out of sight, left or right, and be fairly sure there will be an open shot to a not-too-distant green, accuracy then was the key. Keeping the ball in the hard-baked fairways on the 10th through 15th hole stretch at Portland Country Club during the mid-30s approached an art form. And there was no convenient clearing once the ball reached the uncooperative rough.

The most deft practitioner of the straight and narrow was host pro Ernest W. Newnham. The fiercely competitive 130-pounder captured his fifth straight Maine Open championship by hitting driver-driver to the 487-yard 16th for an easy birdie. As his caddie, I was as amazed as playoff opponent Eddie Bush. I never saw another "on in two" in nine years of bag-toting.

The secret of his success was pronating (turning over his wrists) and creating amazing overspin on the ball for added distance. Newnham and equally bantam Ben Hogan shared that secret with few.

What chance would Newnham have on the lush fairways demanded by the modern golfer? Next to none. His line drive shots would hit the soft ground like a wounded duck. The ball would bury. To Newnham, there was no such thing as a preferred lie or 'playing relief.' He'd be hopelessly out of touch with golf as played today.

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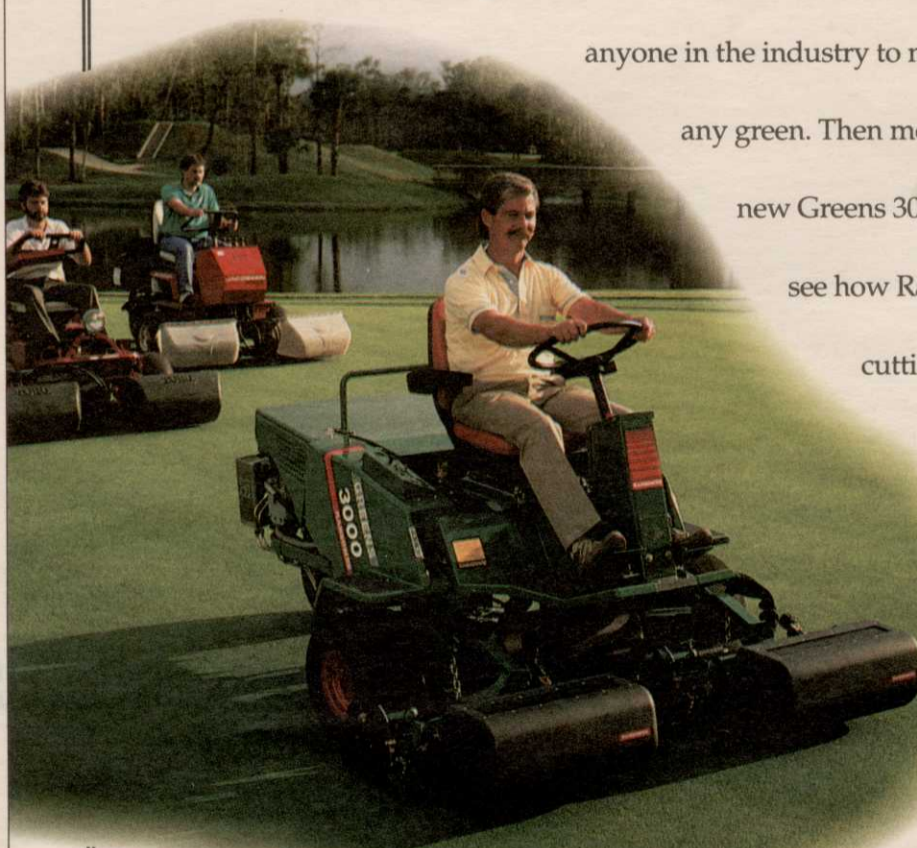
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RANSOMES



Southeast

SUPPLEMENTAL WATER

TITUSVILLE, Fla. — Dan Justice and Jim Powell of Horizontal Wells, Inc., spoke on the use of horizontal wells as a source of supple-

mental or primary water at a recent meeting of the Central Florida Chapter GCSA at La Cita Country Club.

The concept uses upper-surficial water 18 to 24 feet below the surface.

Basically a drainage system with a with-



drawal pump, the design calls for installation of six-inch screened drainpipe to a depth of 20 feet. An eight-inch PVC header attached to the pipe and equipped with a submersible pump can withdraw 225-450 gallons per minute.

The wells have been at more than 30 installations in Florida for some time. A recent one is at La Cita CC, where course superintendent Dale Reash is using the wells as supplemental lake water sources.

West



SOUTHERN CALIFORNIA EXPO PLANNED

COSTA MESA, Calif. — The 31st annual Southern California Turfgrass Expo Oct. 2-3 at the Orange County Fair Grounds here will feature more than 200 exhibitors.

Expo, part of the \$10-billion Green Industry in California and devoted to the exhibition of equipment, materials and services for installing and maintaining turfgrass and landscape, is expected to attract more than 6,000 green industry professionals.

This year's emphasis will be on water conservation materials, services and equipment.

In addition to the 18,000 environmental beautification businesses, which comprise a part of the green industry, golf course superintendents, landscape architects, horticulturists, nurserymen, manufacturers, sports and recreational managers, institutional and commercial landscape maintenance personnel also are included.

Contact Chuck Wilson at 714-951-8547.

FLORIDA CONFERENCE

The Florida Turfgrass Annual Conference and Show has been scheduled for Oct. 13-15 at Prime F. Osborne III Convention Center in Jacksonville. For more information call 407-898-6721.

GEORGIA FIELD DAY SET

GRIFFIN, Ga. — Demonstration sites and displays of products and equipment will be featured at the Turfgrass Field Day on July 31 at the University of Georgia's Georgia Experiment Station here.

The 8 a.m. to 3:30 p.m. event will include demonstrations on weed control, brown patch resistance in tall fescue, turf insects such as fire ants and mole crickets, disease identification and control, turfgrass water use and conservation, and pesticide fate.

Contact the University of Georgia Cooperative Extension Service, Landrum Box 8112, Georgia Southern University, Statesboro, Ga.

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Northeast

BREARLEY REPLACES PASSIOS

The Golf Course Superintendents Association of New England's board of directors has appointed Edward L. Brearley of Bay Pointe Country Club in Wareham, Mass., vice president.

He will fill the unexpired term of Charles T. Passios of Hyannisport (Mass.) Country Club, who has resigned.

Bob DiRico of Brae Burn Country Club in Newton, Mass., will fill Brearley's term as trustee. Jim Fitzroy of The Presidents Golf Club in Quincy, Mass., was appointed golf chairman.

SUPERS JOIN ROLES

New Massachusetts superintendents include Mark Klimm, formerly of Bally Meade Country Club in Palmer, now at the Ridge Club in South Sandwich; Rob Donovan of Glen Ellen Country Club in Millis; Joe Eckstrom of South Shore Country Club in Hingham; and Pat Kriksceonaites of Essex Country Club. Kriksceonaites had been at Rochester (N.H.) Country Club.

Tom Brodeur, formerly of Essex Country

Club, has moved to Chicago to take over at Crystal Tree Golf and Country Club, and Jim O'Kelly of Ipswich Country Club has taken a superintendent position in Westchester County, N.Y.

CIBA-GEIGY GIVING IN SUPERS' NAMES

In a new program, Ciba-Geigy will donate money to the research fund of the superintendent's choice in their name and the name of the course they represent.

To be eligible, a golf course must purchase at least \$2,000 of Ciba-Geigy products between last Jan. 1 and Sept. 15. Top donation is \$500 for a \$10,000 purchase.

When supporting the program, superintendents should have the donation made to "GCSA of New England" and list their club. At the end of the year, all clubs that helped will be listed, and the GCSA of New England will decide where the research money will be donated.

WELCOME HOME WEEK

The New England PGA declared the week of July 1-7 as Hero's Welcome Home Week, symbolizing its appreciation for the troops returning from the gulf and those activated during the War in the Gulf.

The celebration included a golf event at Pleasant Valley Country Club in Sutton, Mass., July 1. Bobby Orr, Tom Heinsohn, Bob Cousy, Jane Blalock, Paul Szep, Mike Lynch, John Dennis, Carl Yastzremski, Mike Crispino and Dick McPherson were among the celebrities who participated. Titleist and Foot-Joy Worldwide sponsored the Hero's Welcome tournament at Pleasant Valley.

Mountains

WATER ADVICE GIVEN

Water-troubled members of the Cactus and Pine GCSA were told at a recent meeting that they should implement water tracking methods.

Meeting host Virgil Robinson of Desert Mountain Golf Course in Scottsdale, Ariz., told a large turnout about computer programs for budgeting water and tracking its use.

Bob Swanson of Swanson Links, Inc., stressed the need for a uniform system of tracking water use to help outside agencies compare this data from course to course.

Marjie Risk of the state Department of Water Resources said water budgeting emphasizes a hands-on approach.

She said it requires data input, determines turf water requirements and adequate water application, and stresses the importance of record keeping.

Record keeping, she said, will provide water-use history and documents that should achieve more efficient water use and better distribution by the Arizona Department of Water Resources.

SOUTHWEST SECTION SUPPORTS DARE

The Southwest Section PGA has pledged support of the Phoenix, Ariz., Police Department's Drug Abuse Resistance Education (DARE) program and showed its backing with a \$6,000 donation.

Section President Ralph Bernhisel presented the check to Phoenix Chief of Police Ruben Ortega at the section's annual meeting.

The contribution will make it possible for two inner-city schools to receive the DARE curriculum. Initiated in 1987, DARE is a national non-profit organization that helps communities establish and improve local DARE programs. The Arizona DARE began in 1987 when six Phoenix police officers were trained as DARE instructors and 14 schools agreed to be part of the pilot program.

SWSPGA plans many activities to raise funds for DARE and is asking for suggestions.

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University and industry seed breeders take aim

Continued from page 1

organisms that can (improve turfgrass seed) right now in a petri dish. Putting it to work in the field may be a long way off. But who knows? Researchers now have tools that weren't available in the past."

Kevin Morris, national director of the U.S. Department of Agriculture's National Turfgrass Evaluation Program, said golf course superintendents and others have "many more grasses to pick from than in past years."

"We have made a lot of progress in grass breeding in the past 10, 15

years. I think a lot of that is due to the Plant Variety Protection law being implemented in the early 1970s. It gave people the protection to develop something new and market it without having to worry about it being stolen. Partly responsible, also, is that the NTEP's testing program has gotten information out for people to see."

Morris pointed to tremendous progress in perennial ryegrasses. "If you look at the best ryegrass in tests four years ago and compare it to the latest varieties, there is no comparison. There are 20, 30 or 40

that are better... Not that that one is bad, but the other ones have made that much headway in plant breeding."

ENDOPHYTES

While plant breeders nationwide are improving grasses, U.S. Golf Association Green Section National Director Jim Snow said the USGA is concentrating the next three years on environmental research. It is donating more than \$3 million to 18 research projects at universities around the country.

Central to hopes of scientific

breakthroughs are endophytes. An endophyte is a fungus that lives within plants and gives them natural resistance to certain chewing and sucking insects. Different endophytes live in different species of grass. If one can be found for a certain type, it can be inoculated into grass of that same type.

Since the discovery of endophytes, scientists worldwide have searched for more.

Dr. Richard Hurley of Lofts Seed, Inc. said endophyte is a good "insurance policy" and researchers "have gone a long way in a very

short time finding them" for various varieties.

Morris said: "Endophytes have worked well in perennial ryegrasses. Several tall fescues also have endophytes in them now. With tall fescue it won't be as much of a benefit as with ryegrass. Endophytes do two things. They give resistance to certain insects... and give the plant better tolerance to stress and drought. The survivability is better with the endophyte, although we don't know why."

"With ryegrasses, that's critical because it's difficult for them to make it through the summer in some places and they have problems with insects, too. Tall fescues don't have very many insect problems, so I don't see the endophyte being a plus or minus with them. They might enhance their stress resistance, but we won't know that for three or four years."

He said endophytes have been found for some fine-leaf fescues, "which we desperately need because they have a lot of insect problems."

Snow said endophytes for bentgrasses would be most beneficial for Northern golf courses.

"They have found endophytes in other bentgrasses so we're hopeful they can find one in either creeping or Colonial bentgrass," Snow said.

Funk and his Rutgers associates, among others, are looking for endophytes in bentgrasses and bluegrasses. One biologist is even going to Great Britain to search for a bluegrass endophyte for a few weeks this summer.

He said Dr. James White of England, one of the leading endophyte authorities in the world, is at Rutgers this summer working in conjunction with the Sports Turf Research Institute to find endophytes for bluegrass as part of a USGA-funded program.

Funk reported endophytes have been found for several bluegrass types, but not the poa annua or poa trivialis found on golf courses.

Once an endophyte is found, Funk said, "We need to: first, transfer it; and then get it to establish a long-term symbiotic relationship that's transferred through the seed. It must have useful properties to enhance the turf performance, like increasing its insect resistance or stress tolerance."

Hurley, Lofts' vice president and director of research and agronomy, warned that while endophyte retains its viability in cold storage, it loses it dramatically when stored in warm conditions.

Citing the "significant breakthroughs in grasses being developed with genetic resistance to stress tolerance and pest resistance," Funk added: "These are little incremental increases ... But they are building blocks that make a huge difference over the years."

SEED PRIMING

He also pointed to "considerable research" on seed priming. Prim-

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on even more improvements in turf varieties

ing is a way to control hydration of seed to a level that allows pre-germination activity, but prevents "radical emergence," or sprouting. The result is faster germination and green-up.

But, Funk said: "It could be much more important than just speeding up germination. The ultimate reason some people are working on primed seed is that ... intrinsic with the ability to put moisture in the seed is the hope that they can put in certain favorable micro-organisms that will be present when the turf is established and that could suppress disease problems.

"Perhaps it can fix atmospheric nitrogen to reduce fertility costs. And perhaps it stimulates seedling vigor by producing growth hormones."

Priming, Funk added, could be developed to be "a delivery system for micro-organisms that can do these things right now in a petri dish."

One firm emphasizing priming is The Genesis Group, a Salt Lake City, Utah, firm that owns seven seed companies.

Genesis and scientist John Easton of Kamterter Products of Lincoln, Neb., have cooperated on a new type of priming called solid matrix priming (SMP). Genesis has exclusive rights to market this type of primed turfgrass.

Genesis Product Manager Gregg Finlay said SMP puts seed in clay, adds water and oxygen, and controls the temperature over a certain period of time. "You trick the seed into believing it is in the soil," he said, "and just before it sprouts, you shut it off, dry it down and package it."

Unlike other primed seed which has a very short shelf life, SMP seed can be stored up to 18 months, perhaps longer on bluegrass, Finlay said. "We're also doing accelerated shelf life studies on bentgrasses and others," he said.

"We have primed rye and get germination in as little as 24 hours. That's exciting ... especially in areas where there is flooding and the golf course gets wiped out. The superintendent will have an option. He can get primed seed and have grass in a couple of days."

All species can be primed, but some show better results. Marked advantages with Kentucky bluegrass, and with fescue when sown in marginal areas, has been reported.

Dr. Joe Duich at Pennsylvania State University has been testing the method for two years and is extremely pleased with the results, Finlay said.

Finlay said Genesis is in the first of two phases.

"Once we launch the priming process, we're looking down the road a year or two to phase two. Phase two will actually include microbial inoculation during the priming process. In a microbial inoculation you will have a measure of nitrogen fixation in the plant much

in the same manner as in legumes," he said.

"What it means for the golf course is you can get by using less fertilizer. And this bacteria forms a sheath around the root, which will allow the plant to take up more nitrogen available in the soil and thereby better use the nutrients in the soil."

Chief Executive Officer Gary Beil said Genesis is in the early stages of marketing. But it is available through the company's seven firms — Seaboard Seed Co. in Bristol, Ill.; Grassland West in Clarkston, Wash.; Curtis & Curtis, Inc. in Clovis, N.M.;

Green Seed Co. in Gallatin, Tenn.; Garrison Seed Co. in Hereford, Texas; Turf Merchants, Inc. in Tangent, Ore.; and Stanford Seed Co., in Buffalo, N.Y.

Lofts' John DeMatteo seed priming "fits a niche" in the industry, helping superintendents, for instance, when they are under time constraints to get seed down and grass up.

"But the cost is very high. That's always going to be the prohibiting factor," he said.

OTHER RESEARCH

Seed coating is also done by seed

companies.

Generally, it adds about 50 percent weight to the seed, but the coating can include fertilizer, fungicides, growth hormones, insect repellents, or whatever else researchers decide.

DeMatteo said coating coating causes "an invigorated plant, one that's more aggressive, that comes up faster."

He said its sheer weight will help when seeding the lightweight bentgrass. Bentgrass with coating, he said, is easier to spread. Wind can't blow it away."

The USGA's Snow said in many areas of research, turf specialists traditionally use techniques first developed by the major crop industry, which spends "tens of millions of dollars trying to do the same things with crops" as we want to do with turf.

There is a great future in biotechnology, Snow said

He said the USGA is particularly keen on:

- Dr. Eric Nelson's work at Cornell University. Nelson has found that certain compost materi-

Continued on page 22

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Musser supports student researching genetic engineering

KNOXVILLE, Tenn. — James E. Bond may not be in pursuit of sinister spies, but the Great Britain native is searching the mysteries of genetic engineering that will help turfgrass professionals for generations.

Developing techniques to transfer desirable traits from one plant to another has earned a \$4,000 scholarship for the 26-year-old doctoral candidate at the University of Tennessee.

Bond was awarded the 1991 Musser International Turfgrass Foundation's graduate scholarship

to complete studies "of tremendous benefit to turfgrasses," according to Dr. Lloyd M. Callahan, UT professor in charge of a DNA research program in the department of Ornamental Horticulture and Landscape Design.

As a direct result of Bond's work, "highly desired traits such as cold-hardiness, herbicide resistance, disease resistance, among others, can be introduced into desired turfgrasses that do not possess this trait," wrote Callahan in nominating Bond for the scholarship.

"This technology is essential for

genetic engineering of plants and the related improvement of crop species," echoed Dr. Peter M. Gresshof, who holds the Racheff Chair of Excellence in plant molecular genetics at the university. "Bond's progress has been excellent despite the intellectual and scientific challenge of the research."

The Musser Foundation was formed by graduates of the turfgrass programs at Penn State University to fund basic turfgrass research through fellowships to outstanding graduate students completing their doctoral work in turfgrass science.

It honors the late Dr. H. Burton Musser, turfgrass researcher and educator at Penn State for four decades who developed Penncross creeping bentgrass.

The foundation is funded primarily by contributions from Penn State alumni and grants from companies in the turfgrass industry. This year, it sought donations from golf course superintendent associations. The Midwest, West Virginia and Florida responded.

Frank Dobie, superintendent at The Sharon (Ohio) Club, was re-elected president at the

organization's annual meeting. Dr. Joseph Duich, head of Penn State's turfgrass program, is first vice president.

Other officers are Tom Burrows, a turfgrass consultant based in Stuart, Fla., second vice president; John Spodnik, superintendent at Westfield, Ohio, CC, treasurer; and Dudley Smith, superintendent at Silver Lake CC, Orlando Park, Ill., secretary.

Seed research

Continued from page 21

als suppress diseases.

"Some materials are being tested on courses in New York and are suppressing diseases very well," Snow said. "The trouble is that we don't know which organisms are causing the suppression. He is trying to identify which organisms are having this effect on diseases. If you can identify the organisms, you can incorporate them into top-dressing materials or sprayable materials ... so that when you top dress greens you can be putting down organisms that suppress disease, and therefore reduce use of pesticides."

- Dr. Nick Christians' research at Iowa State, where he is in the patenting stage for a biological control of certain types of weeds.

- Studies on using nematodes for grub control at Ohio State, the University of Kentucky, Rutgers and University of California-Davis.

- Turf entomologist Mike Villanit's work on alternative methods of controlling grubs at Cornell's Geneva Experimental Station.

- Dr. Dan Potter's research on biological-type controls at the University of Kentucky.

- University of Florida studies on control of take-all patch.

- Research on placement of insecticides in the turf, being done by Dr. Harry Niemczyk at Ohio State and Dr. Pat Vittum at the University of Massachusetts.

- Attempts to develop an "improved" cold-tolerant seeded-type Bermudagrass at Oklahoma State, and a seeded buffalograss at the University of Nebraska.

In recent years, Snow said: "We've made a lot of gains in context of the environment, but not in controlling pests. Trying to develop chemicals that are more specific to certain pest, is better than putting out a product that controls just about everything and thus kills a lot of beneficial organisms. From that standpoint, chemicals have improved a lot.

"There are chemicals we have lost that were much better for some things than anything we've got today — particularly insecticides... But they were environmentally poor, so, justifiably, they were eliminated. So what we have now is a breed of chemicals that is, for the most part, short-lived, breaks down quickly, and has a lot less potential for contamination of ground water and surface waters than before."



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Larry Hanks, VP Golf Operations; North Star Development Co., Inc. at Deer Creek, Overland Park, KS.

chance. Penncross bent was selected for the greens, zoysia for the tees and fairways, and tons and tons of Triathalawn blend was seeded into the roughs. Our tees, greens and fairways will receive adequate water, but we're counting on Triathalawn's deep-rooting to look good in the unirrigated areas ... especially around our stately trees.

types were up to the task. When it came to selecting a brand name, we picked Triathalawn blend, to make the *very best of a real good thing.*

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Pennington, Cactus officials hail new cleaning technology

By Lynn Tilton

ROLL, Ariz. — Pennington Seed Inc. and its associated company, Cactus Seed, which is headquartered here, have two secrets they are keeping under wraps—a unique seed huller and a new type of coating machine for which they are seeking a patent.

"We're able to condition seed two-and-a-half times quicker than traditional systems," said Andy Hancock, project manager at Cactus.

Hancock added that the company's huller is "gentler on the seed" and has "less abrasion than older hullers."

"We have a couple of machines that no one else has, and they're not part of any tour we give," he said.

Along with their hulling and coating machines, Pennington and Cactus are having a production model of a new seed cleaner built in Sweden. That kind of cleaner has only been used in Europe, according to President Brooks Pennington.

Pennington said his company is seeking a patent on the coating machine and does not intend to make either it or the huller available in the marketplace.

Cactus's seed coating includes a

fungicide and growth hormone and has bird and insect repellency. It adds 30 percent to weight of bare seed, compared with an industry average of 50 to 60 percent. Cactus got that technology from Pennington, which has the only other two machines.

Pennington said the entire conditioning process is quicker because it is "in-line" rather than "batch" technology. "The seed goes off the cleaners right into coating," and is not stored between processes, he said.

Hancock added: "We're faster because... we've learned, from older companies' mistakes, how to set up the equipment. Our machine works on the same principle as the older style, but is much faster."

Pennington and Cactus harvest a combined 5.5 million pounds of Bermudagrass annually, more than 40 percent of the U.S. industry's total.

Pennington said the two made a perfect match. "We were looking for a constant good supply of Bermuda seed and they were looking for a market," he said. "Cactus is

the largest processor of Bermuda seed in the U.S. and Pennington is the largest merchandiser."

The Cactus plant cleans, hulls and coats both firms' Bermudagrass, Pennington said.

Hancock said the speed of the speeded-up conditioning allows growers, for the first time, to choose when to market their seed. In addition, they can use their conditioned seed as a bargaining chip when they meet with their bankers, he said.

When Pennington, of Madison,

Ga., purchased Cactus in 1987, Pennington brought its coating technology to Cactus, which had one coating unit built.

One official said the cost of conditioners has deterred seed companies from buying newer models. Companies growing other types of seed have as much as nine times the amount of seed to prepare as the Bermudagrass grown by Pennington and Cactus. Yet the \$750,000 cost of new cleaning, hulling and coating machines is a major deterrent.

Major bluegrass seed growers

Allwestern Seeds, Inc., P.O. Box 1688, Albany, OR 97321; 503-926-9329; Circle #230.

Ampac Seed Co., P.O. Box 651, 32727 Hwy. 99E, Tangent, OR 97389; 503-928-1651. Circle #231.

Balden Seed Brokerage, 1675 E. Seminole, Suite K-600, Springfield, MO 65804; 417-881-6669; Circle #232.

E.F. Burlingham & Sons, P.O. Box 217, Forest Grove, OR 97116; 503-357-2141; Circle #233.

Cascade International Seed Co., P.O. Box 4230, Salem, OR 97302; 503-364-4689; Circle #234.

Casterline & Sons Seeds Inc., P.O. Box 1377, Dodge City, KS 67801; 800-444-4137; Circle #235.

CENEX Full Circle, P.O. Box 11065, Spokane, WA 99211; 509-534-0479; Circle #236.

Dennis Combs Ag Consultants, 587 Third St., Lake Oswego, OR 97035; 503-636-2600; Circle #237.

Commercial Seed Exchange, Ltd., 4833 River Rd. N., Salem, OR 97303; 503-390-6600; Circle #238.

Curtis & Curtis, Inc., Start Rt., Box 8A, Clovis, NM 88101; 505-762-4759; Circle #239.

Robert Dye Seed Ranch, Rte. 1, Box 99, Pomeroy, WA 99347; 509-843-3591; Circle #240.

Ellis Bros. Seed Inc., Rte. 1, Box 310, Centre, Ala. 35960; 205-927-5561; Circle #241.

Heart Seed Co., P.O. Box 313, Spokane, WA 99012; 509-291-3605; Circle #242.

Jacklin Seed Co., W. 5300 Jacklin Ave., Post Falls, ID 83854; 208-773-7581; Circle #243.

Landiseed International, 5775 S.W. Jean Rd., Suite 203, Lake Oswego, OR 97035; 503-635-3766; Circle #244.

Lofts, Inc., P.O. Box 146, Bound Brook, NJ 08805; 201-356-8700; Circle #245.

Norfarm Seeds, Inc., P.O. Box 725, Bemidji, MN 56601; 218-751-8617; Circle #246.

Normarc, Inc., P.O. Box 238, Tangent, OR 97389; 503-926-5801; Circle #247.

Pennington Seed Co., 265 Tangent St., Lebanon, OR 97355; 503-451-5261; Circle #248.

Peterson Seed Co., Box 346, Savage, MN 55378; 612-445-2606; Circle #249.

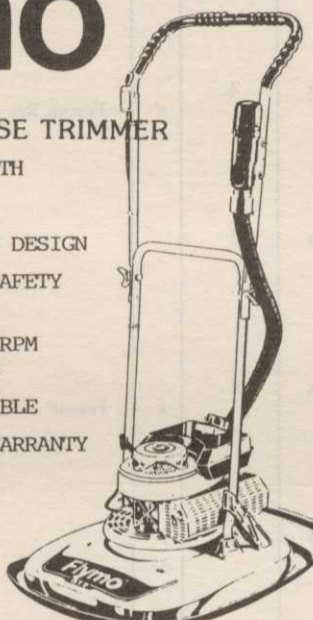
O.M. Scott & Sons Co., Marysville, OH 43041; 513-644-0011; Circle #250.

Seeds Inc., Rte. 2, Box 28, Worley, ID 83876; 509-291-5411; Circle #251.

Seed Research of Oregon, 644 S.W. 13th St., Corvallis, OR 97333; 503-758-5305; Circle #252.

Turf Merchants, Inc., 33390 Tangent Loop, Tangent, OR 97389; 503-926-8649; Circle #253.

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CIRCLE #121

Lean times for bluegrass sod growers, survey finds

By Peter Blais

Bluegrass sod growers are generally finding themselves in the same doldrums bedeviling most of the sod industry.

"There's a direct correlation between housing starts and sod sales," said Doug Fender, executive director of the American Sod Producers Association. "Until the housing market turns around, the sod market will be a tough go."

Existing sod farms expanded and new farms cropped up during the economic boom of the early- and mid-1980s. Sod acreage grew.

When the economy hit the skids at the tail end of the last decade, so did the sod market. While results of next year's U.S. Department of Agriculture census may show an increase in the number of bluegrass sod acres, Holmes suspects much of that land is being planted in pumpkins, watermelons and the like until the housing market rights itself.

With demand down and supplies up, the cost of bluegrass sod has fallen 10 to 25 percent from a year ago in most parts of the country, according to Mike Holmes, general manager of Warren's Turf Nursery in Crystal Lake, Ill. Meanwhile, production costs have remained basically the same because of the 2-to-1 fixed-to-variable cost ratio in the sod business, he added.

Prices in the Chicago area are off 15 to 20 percent, Holmes said. California is down 20 percent and New England and New York 15 to 25 percent, he estimated.

Occasional pockets of prosperity exist where prices have remained the same or even escalated.

Texas, which went into and came out of the recession earlier than most of the country, has seen sod prices triple, Holmes said. Omaha and Lincoln, Neb., along with much of the Pacific Northwest have remained strong, added Fender. And Iowa, where the droughts of 1988 and 1989 ruined much of the local bluegrass crop, is importing bluegrass sod, according to Iowa State University horticulture Professor Nick Christians.

But rising prices are the exception and falling ones the rule in most of the nation. That's good news for U.S. superintendents, who can buy a square foot of bluegrass sod from a high of about 24 cents in California to a low of 10 cents in the Midwest, Holmes estimated.

Bluegrass' major assets are its fast-growing rhizomes that allow the turf to repair itself quickly and its dark green color. The large number of bluegrass sod farms

also means "no course should be more than 150 to 200 miles from a producer of golf course-quality turf," Fender said. That makes refrigerated trucks to transport turf unnecessary and helps hold prices

down.

Its major liabilities are its susceptibility to disease when watered and fertilized heavily under low-cut conditions and thick blades that are more difficult to swing through than

many other grasses.

Bluegrass remains popular in the rough areas of many cool-season and transition zone courses. The thick-bladed grass is also common in fairways, but is being pushed by

new varieties of bentgrass, fescues and ryes, especially at high-priced facilities, Christians said.

"Bluegrass is used primarily in the roughs around here," said Dennis Parker, GCSAA President Steve

Survey of major bluegrass sod growers

Company Address Contact person Phone no. Circle no.	Mono-culture	Bluegrass variety	Blend	No. of bluegrasses	Mixture	Other turf types	At-farm price (cents/sf)	Harvestable acres	Soil type	Region served	Years in business
Bluegrass Lawn Farms 262 Red Lion Rd. Vincentown, N.J. 08088 April Lee Anderson 609-859-2224 Circle #201			x	3-5	x	Fescue	Varies Varies	800	Sandy, loam, heavy	Mid-Atlantic	31
D.A. Hoerr & Sons 8020 Shade Tree Dr. Peoria, Ill. 61615 Jack Hoerr 309-691-4561 Circle #202			x	4			10	600	Silt loam	Ill.	65
De Lallo Sod Farms 652 Deer Park Ave. Dix Hills, N.Y. 11746 Len De Lallo 800-426-4763 Circle #203			x	4	x	Fescue, Rye	17-18 17-18	1,400	Haven sandy loam & riverhead loam	N.Y.C., CT, N.J.	31
Eastside Nursery P.O. Box 127 Groveport, Ohio 43125 Richard Wilson 614-836-9800 Circle #204			x	3			Varies	1,500	Mineral	Ohio	45
Fairwood Turf Farm 12307 Annapolis Rd. Glenn Dale, Md. 20769 Eugene B. Roberts 301-390-6212 Circle #205			x	4	x	Fescue	12 12	500	Loam, clay, sand	D.C., Md.	25
Foxcroft Meadows 5402 Edgewood Rd. Crystal Lake, Ill. 60012 John Barchard 815-459-3322 Circle #206			x	4-5			9	550	Loam-muck	Chicago	32
Green Valley Turf Farms 7472 Akron-Canfield Rd. Canfield, Ohio 44406 Jeff Ham 800-535-7882 Circle #207			x	5	x	Rye	9.5 9.5	1,000	Clay loam	Pa., N.J.	24
H & E Sod Nursery 3900 W. 167th St. Markham, Ill. 60426 Dale Habenicht 708-596-7200 Circle #208			x x	6 5			9.5 8.5	1,950	Sandy loam, silt, clay loam, peat	Ill., Ind., Wis.	44
Huber Ranch Sod Nursery P.O. Box 188, 23002 Wicker Ave. Schneider, Ind. 46376 John Huber 219-552-0552 Circle #209			x	5			11	760	Sandy	Midwest	25
Jade Run Sod Farm of Delaware P.O. Box 216, High St. Ext. Bethel, Del. 19931 Dan LaCates 301-875-7505 Circle #210				x	3 x	Fescue	10 10.5	300	Sandy loam	Va., Md., Del.	2
Jade Run Turf & Sod Farm P.O. Box 2536 Vincentown, N.J. 08088-0425 Samuel Alloway 609-859-2400 Circle #211			x	3	x	Fescue	10 10.5	600	Sandy loam	N.Y., N.J., Pa., Del.	25
L. DeLea & Sons Sod 444 Elwood Rd. East Northport, N.Y. 11740 Vincent Sasso 516-368-8022 Circle #212			x	4	x	Tall fescue	N/A N/A	1,300	Sandy loam	N.Y., N.J., Conn.	63
Mueller Farms Sod Nursery 26W 258 Lake St. Ontarioville, Ill. 60103 Nick Henrici 708-837-8210 Circle #213			x	5			11	650	Sandy, peat	Chicago	72
Pacific Sod 820 Flynn Rd. Camarillo, Calif. 93012 Bill Tavener 805-987-8456 Circle #214			x	3	x	Rye	Varies Varies	300	Sandy to heavy loam	Calif., Nev.	25+

Cadenelli's assistant at Metedeconk National Golf Club in Jackson, N.J. "Some courses still use a lot of bluegrass. But most of the new ones are going to bentgrass."

"We use it around the fringes of the tees," said Vincent Sasso, manager of Louis DeLea & Sons, Inc., an East Northport, N.Y. sod farm, and owner of a nearby golf course.

"It's too thick to use elsewhere. You can't mow it down low enough."

While new proprietary varieties that are more disease-resistant and shade-tolerant are constantly being

developed, some of the common varieties are making a comeback, Christians said. Among them are South Dakota Common, Ken Blue and Argyle.

"They go into dormancy quicker, but they also come out quicker," the Iowa State researcher said. "And they often require less maintenance."

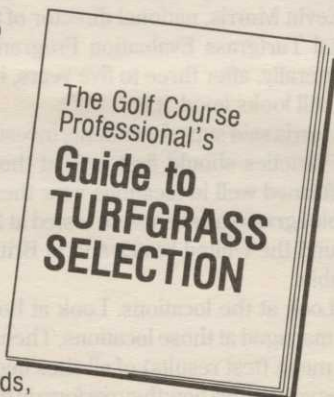
Company Address Contact person Phone no. Circle no.	Mono-culture	Bluegrass variety	Blend	No. of bluegrasses	Mixture	Other turf types	At-farm price (cents/sf)	Harvestable acres	Soil type	Region served	Years in business
Pine Island Turf Nursery 29 Ruth Dr. Sussex, N.J. 07461 Chip Lain 201-875-5125 Circle #215			x	2-4	x	Tall fescue, Rye	10.5 10.5	650	Organic & organic loam	Metro N.Y., N.J., Pa., Conn.	28
Reed's Sod Farm RD1, Box 2009, Rt. 539 Allentown, N.J. 08501 Stuart Reed 609-259-0775 Circle #216			x	5	x	Tall fescue	11.5-12 9.5-10	1,000+	Sandy loam	Pa., N.Y., N.J.	30+
Reid Sod Farm 812 Hwy 33 East Freehold, N.J. 07728 David Reid 908-431-4466 Circle #217			x	4			13	600	Sandy loam	N.J., Staten Island	20
Shamrock Turf Nurseries 13288 S. S.R. 39 Hanna, Ind. 46340 Cliff Guse 219-797-2215 Circle #218			x	4			N/A	700	Mineral, black sand, muck	Ind., Ill.	31
Tuckahoe Turf Farms 15 University Rd. Canton, Mass. 02021 Chris Beasley 800-556-6985 Circle #219					x x	Jamestown fescue Rye, Fescue	16 16	N/A	Sandy loam	N. England, East. N.Y.	20
Virginia Beef 1215 James Madison Hwy. Haymarket, Va. 22069 William Brockett 703-754-8873 Circle #220			x	5			9.5	3,000	Silty loam	Mid-Atlantic	26
Warren's Turf 7502 S. Main St. Crystal Lake, Ill. 60014 Herb Hadley 800-435-6144 Circle #221	x	A-34 Benson	x	3-5			12-28 Varies	3,000+	All types	N'East, M'West, TX, CA	N/A
Winding Brook Turf Farm 240 Griswold Rd. Wethersfield, Conn. Donald Grant 203-529-6869 Circle #222			x	6	x	Chewings fescue	16 16	800	Sandy loam, silt loam	New England	32

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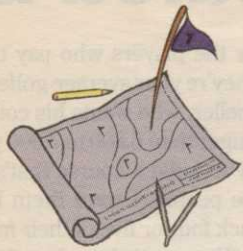
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CIRCLE #123

Briefs

**SHAKER HILLS OPENS IN BAY STATE**

HARVARD, Mass. — Golfers in eastern Massachusetts have a new public course Shaker Hills Golf Club in Harvard that will provide championship playing conditions, reserved tee times and other amenities usually found only at private clubs, but without the high membership fees.

Shaker Hills golf Club which opened July 4, was designed by Brian Silva and Mark Mungeam. It boasts many unique features, including 85 tees that provide a variety of driving situations and angles of attack. The course measures 6,850 yards from the championship tees, and just over 5,000 yards from the front tees.

Silva and Mungeam took advantage of the 170-acre tract to provide a layout that will test the best players, but can be enjoyed by players of all levels.

Shaker Hills offers 24-hours access to a computerized reservation system via telephone hotline. Players will also enjoy the convenience of a bag drop, plus access to a 300-yard range with grass tees and a large practice green. They can also subscribe to the GHIN system (Golf Handicap & Information Network) provided by the Massachusetts Golf Association.

WALDEN LAKE ADDS 9

PLANT CITY, Fla. — Nine new holes of golf opened in June in the residential community of Walden Lake, bringing the total number of golf holes to 36.

The new nine, to be called The Oaks, along with the existing Pines nine, will be available to the public. Managing the 18-hole course will be Walden Lake, Inc., which oversees golf operations in Sun City Center.

The existing 27-hole Jack Nicklaus Golfcourse, Inc. and Ron Garl championship course stretches to 7,000 yards, while the new nine adds 3,200 yards.

FLOOD DOESN'T STOP NEW COURSE

KNOXVILLE, Tenn. — Despite extensive damage caused by two heavy downpours — commonly called gully washers in East Tennessee — the new public golf course in Knox County is scheduled to open in August.

Located in the northeast part of the county, the course lies in full view of nearby House Mountain, the highest county point.

Tom Clark of Ault, Clark, Inc., Kensington, Md., designed the scenic and challenging layout. Multiple teeing areas make it a well-balanced public facility that can be expanded to 6,800 yards for tournament play.

The course will be managed for the Knox County Parks and Recreation Department by Club Corp. of America.

Bill McGraw, busy repairing damage and preparing the course for opening, is the superintendent.

OCEAN COURSE OPENS EARLY

KIAWAH ISLAND, S.C. — The Ocean Course at Kiawah Island, site of this year's 29th renewal of the biennial Ryder Cup Matches on Sept. 27-29, opened for limited play on May 24.

Under a limited-play schedule, up to 100 players per day will be accommodated on The Ocean Course. Green fees are \$100.

Pros cashing in on name, knowledge

Touring men feel they can translate their skills into design...

By Bob Seligman

Money and the desire to stay involved with the game have attracted many aging professional golfers to golf course architecture.

Jack Nicklaus and Arnold Palmer were the trailblazers. Following their lead are such players as Tom Weiskopf, Fuzzy Zoeller, Ben Crenshaw, Larry Nelson, Mark McCumber, Tom Watson, Hale Irwin, Curtis Strange, Gary Player, Lee Trevino, Johnny Miller, Greg Norman, David Graham, Gary Koch, Craig Stadler, Jerry Pate, Calvin Peete, Corey Pavin, Hubert Green and Dan Pohl.

"It's like the domino effect, beginning with Palmer and Nicklaus and fanning out from there," Nelson said. "Other players have seen how much enjoyment they get from it."

Not to mention money. Nicklaus gets \$1.25 million per course, Palmer \$1 million, Player \$500,000, McCumber and Nelson \$350,000.

McCumber, who has built or designed 50 courses, said many professionals are involved with golf course design because of the large fees.

"Golf is in a boom and they're jumping on the bandwagon," said McCumber, who won The Players Championship in 1988. "Each one of them has varying degrees of involve-

Continued on page 28

...while some women also answer the call

By Peter Blais

Check the biography of almost any winner of a Professional Golf Association Tour event and chances are he's designed a course somewhere.

Then turn to the Ladies Professional Golf Association player guide and thumb through the bios. Barely a handful of the top female players are credited with trying their hands at golf course architecture.

Why?

"It always comes back to who controls the money," said Jan Beljan, a college-trained architect with Tom Fazio Design Co. and one of only two females (Alice Dye is the other) belonging to the 108-member American Society of Golf Course Architects.

"Women have made advances. But it's still basically a man's world. Until the men who develop courses can look past gender, it won't change."

Added Craig Jones, executive vice president of Gary Player Design Co.: "A woman player/designer isn't a strong selling point right now. There's a perception a course designed by a woman player would just be a short course."

Thanks to television and the success of the PGA and Senior tours, there are many well-known male players. Developers hire them hoping name recognition will help sell memberships and house lots.

"There are fewer big-name women players because of the lack of television coverage of the LPGA Tour compared to the men's tours," said architect Brian Silva. "Most clients would rather hang their banners on the PGA or Senior tours than the LPGA Tour."

A few better-known LPGA players have helped lay out courses.

Jan Stephenson was the first player to design a facility, according to the association's player guide.

Hollis Stacy has designed her first course, Black Hawk, in Austin, Texas.

Amy Alcott, who is just one victory shy of qualifying for the LPGA Hall of Fame, has consulted with Robert Trent Jones Jr. and the team of Geoffrey Cornish & Silva in Hawaii, California, Virginia and Kentucky.

Hall of Fame member Carol Mann assisted architect Roger Packard at Sweetwater Country Club in Sugarland, Texas.

But that's about as deep as LPGA players' experience goes. Compare that with the demand for such male players as Jack Nicklaus, Arnold Palmer, Gary Player, Lee Trevino, Tom Weiskopf, Curtis Strange, Hale Irwin, David Graham, Sam Snead and on and on. Nicklaus alone had designed and opened 76 courses worldwide through last September.

"Historically, the golf culture has sought males and not females to design courses," said Mann, winner of 38 professional tournaments, twice as many as Irwin. "That's changing, but slowly."

"It's traditionally been a male thing," agreed Alcott. "I've talked to many professional female architects on the staffs of larger design companies. They work behind the scenes and often don't get the credit for the work they do."

Money isn't the only reason few women players are designing courses. Most male players turn to course architecture as their playing days draw to a close. Palmer, Player, Nicklaus and Weiskopf are much more active in design than Strange or Greg Norman.

"I'm not sure that many women players are at the point in their career when they are interested in design," said LPGA Director of Promotions Cindy Sisson. "We held our first Senior event last year and just 15 or 20 players were even eligible. Our organization is just 40 years old."

Then there is the touchy subject of the difference between the sexes.

"I'm not sure that many women players are aggressive enough or have the desire to be designers," Beljan said. "A lot of the women

Continued on page 30



Touring pro Mark McCumber is an active golf course designer. One of his creations is Queen's Harbour Yacht & Country Club in Atlantic Beach near Jacksonville, Fla. This is a view of the 3rd hole.

Photo by J. Pettibone

Fream's courses win judges' laurels

SANTA ROSA, Calif. — Golfplan, The Ronald Fream Design Group, Ltd., is immersed in golf course projects in 20 countries, but has several "hits" in its own backyard.

Redhawk Golf Course at Temecula, north of San Diego, and Oakhurst Country Club in Clayton, are listed No. One and Two by California Golf magazine as the best new courses in California.

It's a rare distinction that one firm designed the two best new courses for one year in a state with so many courses.

Oakhurst and Windsor Golf Club, in Santa Rosa — ranked fifth and eighth, respectively, among the state's top 25 in terms of most enjoyable for the average golfer —

with Redhawk are Golfplan's only design efforts to open in California in the last five years.

Oakhurst, rated the best new course in Northern California, plays through the hills at the base of Mt. Diablo. The course opened for play in November and is reported in great shape. Windsor was the site of a Ben Hogan Tour event in October. The course is set on rolling fairways dotted with oak trees and large greens.

Meanwhile, Fream Design is working on a wide-ranging scale of international projects from the Arctic Circle in Finland to the equator in Indonesia.

Its latest venture, the Tullybannocher

course near Gleneagles in Scotland, is regarded as a true Scottish highland natural course.

A 27-hole EuroDisneyland, under construction near Paris, will be a high-visibility project. Golfplan has eight other projects underway in France, including Golf de Gassin, an 18-hole resort course that overlooks the harbor and port of St. Tropez on the French Riviera.

Asiana Country Club, south of Seoul, Korea, is a 36-hole championship course of awesome proportions. At present exchange rates, the project budget is \$170 million.

Sixteen courses in design or construction process span Japan.

Male professional players, some fascinated by

Continued on page 27

ment. If the economy stays tough and fewer courses are built, you'll see fewer guys getting on the bandwagon, and some guys who are doing it will stop."

Weiskopf, thought by some to be the most serious about agronomy and other scientific aspects of design, said: "They think it's easy because so-and-so does it. He does it and makes a lot of money on it. It is not as easy as it appears to be. It is a full-time job. It is a full-time effort."

DIFFERENT BEGINNINGS

Some playing professionals, like McCumber, were involved in course architecture early in their careers. Crenshaw said he was fascinated by golf course architecture when he was 16, but didn't begin designing courses until two years ago.

Zoeller entered the field after back surgery in 1984 endangered his playing career. Nelson and Weiskopf wanted to stay involved with the game after retiring from active play.

Touring pros enter the design field with different degrees of expertise.

McCumber worked at Hyde Park Golf Club in Jacksonville, Fla., picking crabgrass to earn money for greens fees while in high school. The course was built by Donald Ross, whose style McCumber has tried to emulate.

A partner with his older brother, Jimmy, McCumber also took landscape design courses in college.

Nelson, a former U.S. Open and two-time PGA champion, brings an artistic background to design. He was an illustrator at Lockheed Aircraft and learned how to read a topographical map while in the military.

Zoeller, a former Masters and U.S. Open champion who has designed 10 courses, including TPC courses at Summerlin in Las Vegas, Nev., and Southwind in Memphis, Tenn., said, "I've seen enough golf courses to know what's good and what's bad."

"Since I've been playing golf, it gives me a little bit of an idea of what should and shouldn't be done," echoed Nelson. "I don't have the formal training a golf course architect does. The thing that qualifies me is my sensitivity to the game of golf and the environment and the developer who is trying to sell greens fees or lots. The best association is for one of the people who has gone to school to learn the technical aspects, to combine with someone who knows the playing aspects of the game."

CLASSICAL PLAYABILITY

Certain constants pervade the thoughts of PGA Tour players toward their designs. They want to build courses that:

- all levels of golfers can play;
- make golfers think, rather than just bash the ball; and
- are natural in appearance and classical in style.

"I think the best courses we've seen since the 1930s will be built in the 1990s by some of the playing professionals," said Weiskopf. "We are going back to the traditional

style of building golf courses. Maintenance, criticism and competition have forced us that way."

"With Watson and Crenshaw getting into the business, and David Graham and Gary Panks, we'll see some great traditional work," said Jay Morrish, who is Weiskopf's partner. "Crenshaw and Watson will put some of that old feeling in there."

Crenshaw, the 1984 Masters champion, said: "It seems to me the older, more traditional courses have stood the test of time. It seems all the very fine courses blend with the



You've got to build a golf course for the players who pay the bills. They're your average golfers.'

— Fuzzy Zoeller

existing terrain. They don't fight it. They're more in touch with variety and shot value. I share the philosophy that less is more. If I had a nice piece of rolling terrain, I would do as little as possible as

far as moving dirt."

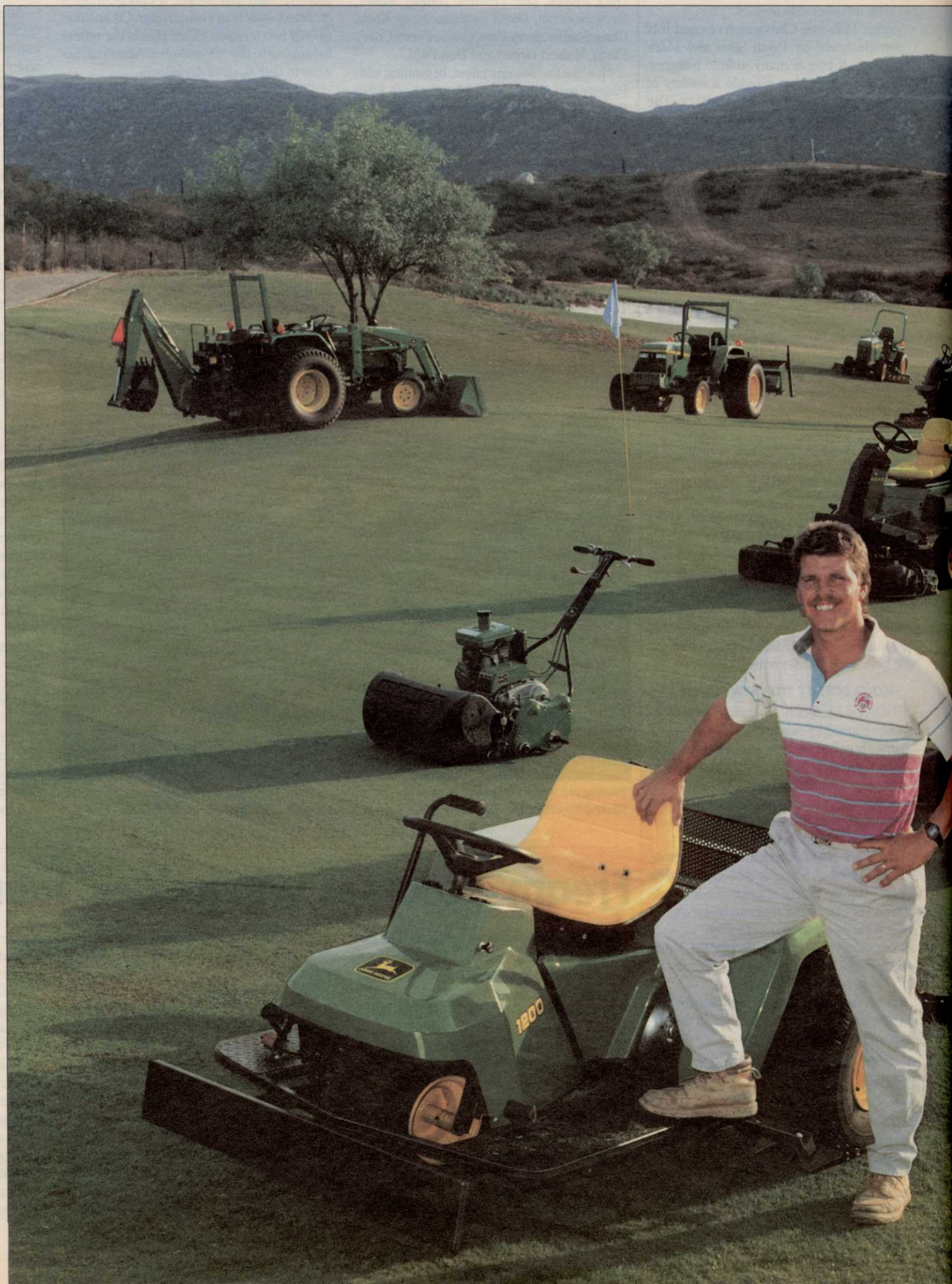
Pros may not want to move much earth, but they do want their courses to move golfers to feel enjoyment in having played there.

"You've got to build a golf course

for the players who pay the bills. They're your average golfers," said Zoeller, who wants his courses no longer than 6,800 to 7,000 yards. "I try to build a course that's fun for the people. I want them to bring back four or five of their friends."

"You want to introduce the course to all levels of golfers," Crenshaw said. "That should be the prerequisite of all golf courses."

But the common denominator is the thought process of the game. PGA Tour professionals say they have constructed their courses with a se-



nuances of design, want to try their hand

ries of options for all levels of players.

Zoeller and Nelson said they have been influenced by seeing what amateurs in pro-ams can and cannot do. As McCumber said, "Golf should be a subtle game where everything adds up to be dramatic."

"We want to try to introduce a course that's natural and that makes you think before striking," Crenshaw said.

"We try to offer a lot of options from tee to green," Nelson said.

Touring pros are incorporating many philosophies in their creations. Setting up proper directions

and angles is prominent.

Crenshaw, for example, said bunkers on the inside of a dogleg can open up a better angle to the green.

McCumber said he won't use vertical lines on a golf course because nature doesn't offer them to designers. He also avoids uphill, 440-yard, par-4 holes into the wind because of the difficulty in reaching them in two shots. He refrains from having the 9th and 18th finishing west because he said players will have trouble seeing the hole as sunset nears.

On a 220-yard, par-3 hole,

McCumber will design the green to be more accessible on the back right because he feels an average player's slice will give them

a better chance to get to the hole. Weiskopf tries to combine a variety of easy against hard holes, right against left holes, and uphill and downhill holes. He said four or five consecutive



Ben Crenshaw

par 4's is not a good sequence.

"Routing is the most important part of a golf course," Weiskopf said. "If it's routed properly and relates to the terrain, then you have aesthetics."

"Angles are to me what good golf is all about," Crenshaw said. "It accommodates a lot more thinking."

Placement and use of hazards also plays prominently into the thinking of professionals. Crenshaw, who has designed two courses and is a partner with Bill Coore, favors using few artificial hazards.

Zoeller, who has worked with

such architects as Bobby Weed, Clyde Johnston and Bob Lohmann, said he doesn't like carries over water of more than 100 yards.

Nelson, who has designed 13 courses, said he opposes too many forced carries over water and bunkers.

"We always try to design a hole so a higher-handicap player can get from tee to green without a 200-yard forced carry over water or sandtraps," Nelson said.

"As (A.W.) Tillinghast said about Winged Foot (in Mamaroneck, N.Y.), There are no forced carries of the sink-or-swim type off the tee," Crenshaw said.

The position of the hole is also important to the pros-turned-designers.

Nelson said multiple pin placements can increase the difficulty of fairway shots to the green.

Zoeller likes more openings to greens.

Weiskopf prefers to have more chipping and pitching around greens.

McCumber said players should face tougher putts if they aren't in the right position.

Crenshaw likes gently rolling, contoured greens.

"If you have flat greens, you have nothing," Crenshaw said. "If half of the strokes are up and around the green, you must be challenged."

Other factors enter into the designs of the players. McCumber favors a variety of holes. Designing par 5s for a course, he tries to build one that's virtually unreachable in two shots, one that's usually reachable in two shots, and two that are reachable in two shots in the right conditions.

McCumber said he tries to design his courses so that players will hit drives with their driver, 3-wood and 1-iron. He is also against blind shots.

"Players should see where they're hitting whenever possible," McCumber said. "I want the player to mentally picture golf shots."

Yet no matter what a PGA player's ideas are for the course, and no matter how much expertise he may or may not have, he must always work with his client.

"We don't go into every course we build to make a U.S. Open course," Nelson said. "We try to make a course that the developer needs and we advise how and what his needs are."

McCumber said: "I would like to think our courses could be played by everyone. Hopefully, we'll have met the requirement for who the course is built for."

Apart from financial, what are the other rewards?

"For me, it's fun to see the courses you've designed and have people come up to me and say how happy they are for having played there," Nelson said.

They all hope their courses will stand the test of time.

"I would like for people to have great enjoyment from a course we build," McCumber said. "I would like to build a course that isn't dated. And, if it is dated, I'd like someone to say it has been here 60 to 70 years."

The greening of Steele Canyon is now complete

Gary Player designed it. Al Beauchamp developed it. And now, with the help of more than 30 pieces of John Deere equipment, Dave Buckles supervises its maintenance. The course is Steele Canyon, a premier 27-hole facility just opened in San Diego, California.

"This is a first-class development," says Superintendent Dave Buckles. "Gary Player compares it with some of the great courses he has played around the world, so

top-of-the-line maintenance was part of our plan from the start. That's one reason I decided to go with John Deere equipment.

"I was familiar with John Deere from the course where I previously worked, and was very impressed with every piece of equipment I tried, especially the 1200 Bunker and Field Rake and 2243 Greens Mower. They do a great job and

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Owner Al Beauchamp (above) and Superintendent Dave Buckles (left) depend on a fleet of John Deere equipment to maintain the new and prestigious Steele Canyon facility in San Diego, California.



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CIRCLE #126

Female professional golfers finding themselves

Continued from page 27

players have the urge to become mothers when they get into their 30s. It's just a physi-

ological function of being a woman.

"How many women can handle a playing schedule, family and course design? Whether

we care to admit it or not, there are certain physiological and psychological differences between men and women that are meant to be."

Added Alcott: "Many LPGA players want to start families. Designing courses takes a total love of the game and a lot of time. Raising a family definitely cuts into your time."

Said David Graham, who first teamed with Gary Panks four years ago: "There's definitely a lot of opportunity out there for women players to design courses. But I don't think there are too many knocking on the door to get in."

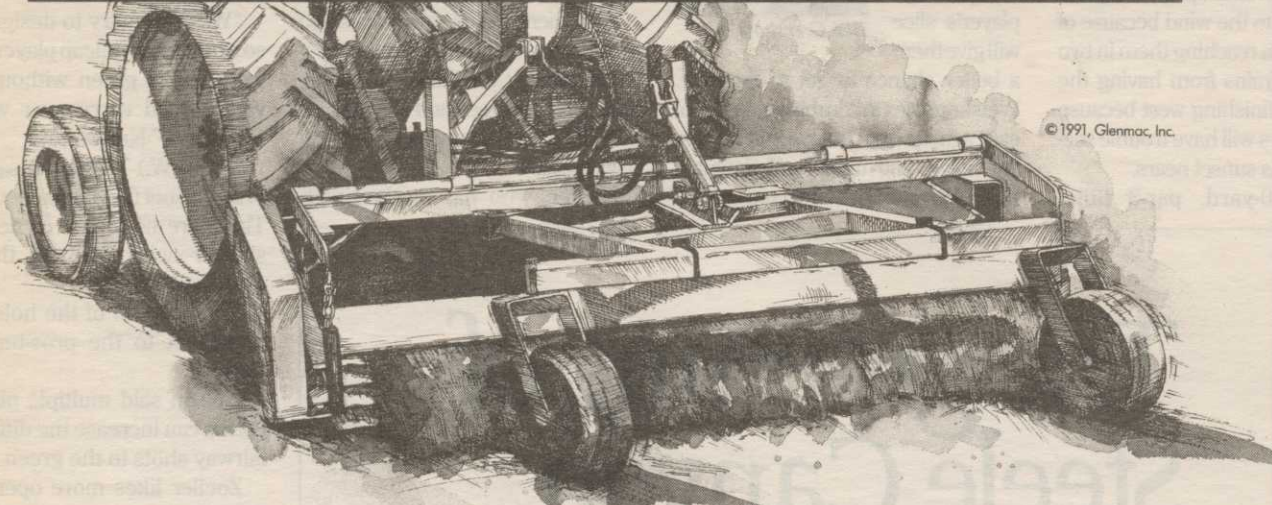
"I don't know if that many women players have expressed an interest," added Silva. "The market for women players to design isn't being developed right now, but it could be. There wasn't a market for courses developed by PGA Tour players 20 years ago. They developed that market, with the help of television."

Although her only experience (unpaid) was Sweetwater back in the early 1980s, Mann said she would like to do more design work. She feels LPGA players could help design courses that would attract and keep more women in the game.

"Forty-one percent of new golfers are women," she said. "Yet three out of four drop out the first year. Those dropping out say the golf experience is too intimidating and involves too much failure."

"I'd like to design courses that are more user friendly. I'd put tees 150 yards from every green, even on 420-yard par 4s. Beginners could play those tees and not hold others up. It would be sort of a course within a course."

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CIRCLE #116



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Alcott calls herself a traditionalist, favoring the small greens and wide fairways of early-1900 architects like Donald Ross and Albert Tillinghast.

"Courses should be playable for everyone," she said. "One way to do that is with more tees. You can set up a course so it can be played in many different ways and not have to hit the same shots on the same holes all the time."

Silva said women pros "might have a better feel for the way the average player plays a golf course," since the distance the "average" player hits the ball and the clubs the "average" player uses would be closer to the female than the male pros.

One of Beljan's main complaints about many pros-turned-designers is they've forgotten what it was like to be an 18- or 20-handicapper. Consequently, they design courses too hard for the average player.

Her other gripe is that many touring pros don't understand maintenance and create facilities that are expensive and difficult to maintain.

"A player needs to take time to learn the business," she said. "Jack Nicklaus worked with Desmond Muirhead and Pete Dye before going off on his own. He had a lot of knowledge about what plays well from his playing experience. But he also learned a lot about things like drainage and agronomics."

"There are many players who haven't done that. That's one of the things I like about David Graham. It's refreshing to find someone who has devoted his life to the game, and yet realized there was a lot he didn't know."

My strong point is aesthetics. I've played more than 2,000 courses. I think I can take a little of what I've learned there and help enhance a course's eye appeal'

— Amy Alcott



"If a well-known woman player did what I did, she could develop an excellent name for herself," Graham said. "You have to get into the business cautiously and you can't represent yourself as something (college-trained architect) you're not. You're dealing in millions of dollars of someone else's money and you have a tremendous obligation to make sure the job is done right."

When he realized course design was something he'd like to pursue as his playing career wound down, Graham began to ask questions. He talked to college-trained architects and players-turned-designers.

"I wanted to know who was the best architect out there who hadn't yet aligned himself with a player," the Australian-born golfer and 1981 U.S. Open winner said. "I knew I couldn't present myself as an architect. I would have been out of my element."

"But I knew I would be good at making an initial phone call that could get us an audience with a developer. I just had to find a qualified architect who would be beside me once we got in the room."

"I talked with Jay Morrish, Tom Weiskopf, Beljan, Fazio and many others. They led me to Gary Panks. Now it's my job to get us through the door and Gary's to produce the product."

"I'm there for the first site inspection and I help with the advertising. Once the course is routed I get involved with strategy, placement of bunkers, things like that."

One of the things that impressed Silva about Alcott, who said she has attended seminars on golf course design and read extensively on the subject, was her genuine interest in craft and client.

"She had a chance to stamp her name on a project she had little to do with, but she didn't do it. That type of honesty is too rare in this day and age," the Massachusetts-based architect said.

"She has the potential to be very good. She has a reputation as a creative shotmaker. That inventiveness translates well into the thought process that goes into course design."

"She'll probably get more involved in design when her playing career slows down. It

takes a lot of time to do it right. That's what amazes me about Nicklaus. He plays a lot, has a billion business interests, but still has all those golf projects. And he spends a lot of time on each one."

Said Alcott: "My strong point is aesthetics. I've played more than 2,000 courses. I think I can take a little of what I've learned there and help enhance a course's eye appeal. I've designed about 60 holes on paper and think I know what makes a great golf course."

Silva recommends any player interested in design should see as many courses as possible, looking past the waterfalls, railroad ties and other frills and concentrating on what makes the course work.

"The elements that make one course great are similar to those that make another great. The secret is to recognize those things and re-create them," he said.

After seeing many courses and determining what she likes, a player should concentrate on an architect whose work she finds attractive, Mann said. If possible she should seek a partnership with that architect, or one with a similar style and philosophy.

A new player-turned-designer should not expect instant riches, Mann said.

"You can't demand a lot of money on your first job or two. You have to see what your ability is and whether you can stick to your guns. Ten years ago, I acquiesced too much to the architect at Sweetwater. Frankly, I shouldn't have done it. Professional architects are good, but they don't know everything," she said.



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RANSOMES

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Location	Course Name	Type	Holes	Address	Architect/Contact
Alabama					
Gulf Shores	Craft Farms	N/A	18	N/A	Palmer Course Design
Arizona					
Surprise	Radnor Sun Village	P	9	Bell Rd.	Larry Cooke
California					
Napa Valley	American Canyon CC	N/A	27	N/A	American Int'l Golf Resorts
Florida					
Destin	Indian Bayou CC	N/A	9	Indian Trail	Roger Clary
Naples	Olde Florida GC	P	36	Vanderbilt Beach Rd.	Quinby Realty Inc.
Port Orange	N/A	M	18	Airport Rd.	City Mgr. Ken Parker
Idaho					
Idaho Falls	N/A	M	N/A	308 Constitution Way	William H. Neff
Illinois					
Elburn	Hughes Creek	N/A	18	N/A	Dave Meyer
Oak Lawn	Oak Lawn GC	M	N/A	102nd St. & Mayfield Ave.	Park Dist. Dir. Ernest Nance
Kansas					
Satanta	Cimarron Valley GC	D	9	P.O. Box 39	Larry Flatt
Maryland					
Hampstead	Oakmont Green	N/A	18	N/A	Planning & Zoning Comm.
Michigan					
Alto	Saskatoon GC	D	27	92nd Street	Owner Bill Howard
Marquette	Chocolay Downs GC	D	36	N/A	Matthews & Assoc.
North Dakota					
Fargo	Rose Creek	M	18	40th Ave.	City of Fargo
Ohio					
Union Twp.	N/A	P	18	Tylersville Rd.	Cincinnati Environs Corp.
Oregon					
Albany	River Oaks GC	D	18	Riverside Dr.	Linn Cnty. Planning Comm.
Redmond	Eagle Crest	N/A	36	Cline Falls Rd.	Jerry Andres
Pennsylvania					
Cecil Twp.	Southpointe	N/A	18	Interstate 79	Millcraft Investments
Tennessee					
Kingsport	Graysburg Hills GC	N/A	9	N/A	Edward L. Packard
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Charlottesville	Glenmore Farms	P	18	Rt. 250	John LaFoy
Washington					
Olympia	Indian Summer G&CC	N/A	18	Yelm Hwy.	Peter L.H. Thompson
Wisconsin					
Middleton	N/A	N/A	18	N/A	Watts Landscape

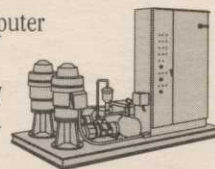
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Marin County	Marin Coast Prtns., Tiburon
Orinda	Pacific New Wave Corp.
Palm Desert	Maeda Real Estate, Torrance
San Martin	H-R Dev. Ptnrs., San Mateo
Simi Valley	Low Dev. Corp.
Vacaville	Hines Nurseries, Inc.
Connecticut	
Middlefield	John Lyman Jr.
Florida	
DeBary	Donald W. McIntosh
Illinois	
Charleston	CC Pres. Logan Davis
Danville	Rand Campbell
Elburn	David Meyer, Naperville
Monee	John Ferrari, Peotone
Sherrard	Wayne McCombs
Indiana	
Clarksville	Council Pres. R. Dickman
Iowa	
Nora Springs	Larry Flatt
Kansas	
La Cygne	Larry Flatt
Kentucky	
Covington	Chuck Eilerman
Ensor	Miles Farm Supply
Maine	
South Berwick	Tim Flynn
Maryland	
Hagerstown	Continental Dev. Corp., Rockville
Mount Airy	Brian Ault
Michigan	
Grand Blanc Tp.	Larry Mancour
Kalkaska	Calvin Adkisson
Minnesota	
Rochester	Paul Pehler
Tower	Fortune Bay Resort
Missouri	
St. Charles	Larry Flatt
St. Louis	Blue T Golf, Inc.
New Jersey	
Frenchtown	Mario DiLiberto
New York	
Kinderhook	Arnold Teasdale
Ohio	
Franklin	John Judge
Oklahoma	
Bixby	Stephen Wallace
Oregon	
Albany	Frank Walker, Monmouth
Bend	J.Morrish/T. Weiskopf
Bend	Sunriver Properties
Pennsylvania	
Monaghan Twp.	Gemini Equipment Co.
New Garden	Bellevue Holding Co., Wilmington, Del.
Spring Garden	Wilmac Corp.
South Dakota	
Sioux Falls	Mayor Jack White
Tennessee	
Johnson City	City Mgr. John Campbell
Texas	
Galveston	Cnty. Parks Dept.
San Angelo	Richard Fausset
Universal City	Leonard Ehrler, Austin
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Briefs

University courses among best in U.S.

By Peter Blais

MADISON, Wis. — Last month's opening of University Ridge brought to 40 the number of university-owned-and-operated golf courses in the United States.

Developed as a top-notch resort course, the Robert Trent Jones Jr.-designed facility is located on 225 acres of rolling hills, meadows and woodlands at the University of Wisconsin. The University of Wisconsin Foundation picked up the entire \$5.5-million tab from private donations.

"It's a very good course. The front nine is pretty much out in the open and the back nine wanders through the woods. I expect it will host the NCAA national championship some day," said Jones, designer of Poppy Hills Golf Club in Monterey, Calif., site of last month's NCAA national tournament.

"They built University Ridge with the idea of its becoming *the* course in Wisconsin," said National Golf Foundation Publications Editor Earl Collings. "It should make a name for itself."

Many schools have "name" courses. Yale and Stanford universities and the University of New Mexico had courses rated in *Golf Digest's* Top 100 until "The Great Purge of 1977," as architecture editor Ron Whitten characterizes the three's fall from grace that year.



Karsten Golf Course at Arizona State Univ. is one of 40 university owned and operated courses in the U.S.

"They had all fallen into disrepair," remembered Whitten.

Still, they are excellent courses, added Whitten, as are Eisenhower Golf Course at the U.S. Air Force Academy, Seven Oaks Golf Course at Colgate University and Karsten

Golf Course at Arizona State University.

Just a notch below them, Whitten said, are courses at the University of Illinois, University of Missouri, Ohio State University, University of Michigan, Iowa State University

Continued on page 34

Golf ticket taps corporate sports entertainment budget

By Peter Blais

MERRIMACK, N.H. — A New Hampshire company is marketing a ticket that corporations can distribute to clients who could then exchange them for a free round of golf at courses nationwide.

Corporate Sports Incentives is selling the Universal Golf Ticket to national corporations in the hope they will give them to their best customers just as they distribute baseball, basketball, football and hockey tickets.

CSI contends the golf ticket is more valuable than a sports event pass because the golf ticket can be used anytime at many locations, as opposed to the sports ticket that can be used only at a certain date and place. The golf ticket resembles a credit card and can be embossed with the giver's company logo to help the client remember where he got it.

"For the first time, the golf industry can obtain its fair share of corporate funds allocated to entertainment budgets," said company founder Jonathan Adams.

CSI's goal is to sign up 3,000 courses within the next two years. Fifty, mostly in the Northeast, were on board in early June.

"Our major effort right now is to contact and sign up more courses," Adams said.

It costs courses nothing to join and the tickets are not discounted. A course will be reimbursed within 10 days at 100 percent of its published price when tickets are presented for a round of golf.

The program is patterned after CSI's Universal Ski Ticket. Corporations buy the ski ticket for \$42 apiece. It can be exchanged for a free lift ticket at 240 of the country's 300 major ski resorts. Pepsi, Coca-Cola, Hires, Seagrams, General Foods, Nestles', Carnation and Campbell Soups are among the companies that have distributed Universal Ski Tickets to their favored clients over the past five years.

The Universal Golf Ticket works somewhat differently. The price of the \$42 ski ticket was

determined by the lift ticket rate at the most expensive of CSI's participating ski resorts.

With greens fees varying from \$5 to almost \$200 in the United States, a different method was needed. Corporations buy the Universal Golf Ticket for \$32 apiece. Adams anticipates one ticket will be good for a round of golf at 80 percent of the courses joining the program. But some courses require two, three or more tickets, depending on their greens fees.

For example, one ticket is good for 18 holes at Hyannis Golf Club in Massachusetts. Two tickets are needed for 18 holes and a cart at Copper Mountain Resort in Colorado. Three tickets fetch 18 holes and a cart at the Balsams Grand Hotel Resort in New Hampshire.

"If we ever sign on Pebble Beach, it might take something like six tickets," Adams said.

While CSI expects most of the tax-deductible Universal Golf Tickets will be distributed by executives to clients, Adams said they will likely be used as rewards in company sales incentive programs for employees and as gifts for relatives and friends.

"We've sold a lot of ski tickets at Christmastime as stocking stuffers," he said.

CSI has already sold its first load of golf tickets to a corporate customer. Adams expects sales to accelerate, especially as more courses sign up for the program.

More courses will join the program as it gains credibility, he said. Ski areas with golf courses, because of their familiarity with the Universal Ski Ticket, have been among the first to enlist for the golf program, Adams added.

"My only question as a golf course manager would be 'How do I know if I'll be paid if I accept this ticket?' We've got a solid, five-year history with the ski areas. In fact, the ski areas have a greater exposure than golf courses. Killington (Vt.) runs through something like 16,000 skiers a day. A golf course, at most, is only going to have some-

Continued on page 34

Royal Golf & Tennis develops innovative training program

HILTON HEAD ISLAND, S.C. — Some innovative career training programs developed by Royal Golf & Tennis, Ltd., in conjunction with local educational institutions, may prove to be trend-setters in the resort operations industry.

Continuing its active role in training and development of its employees, Royal Golf & Tennis has added to its usual in-house seminars by collaborating with Hilton Head-area educators to create a series of training programs designed specifically for the resort industry. Other resort operators are even taking advantage of the training curriculum.

The first step was the development of a two-part Grounds Maintenance Program. Working with the Technical College of the Lowcountry and the Beaufort-Jasper Career Education Center, Royal Golf & Tennis developed the curriculum for Turf Management, designed for golf maintenance senior or supervisory staff; and Horticulture, designed for general landscape staff.

"We first looked at golf maintenance training because it's such a big part of what we do," said Margaret Vaughan, director of human resources for Royal Golf & Tennis, which manages and operates all resort amenities, including 81 holes of golf and 36 tennis courts, at Hilton Head's Port Royal and Shipyard Plantations.

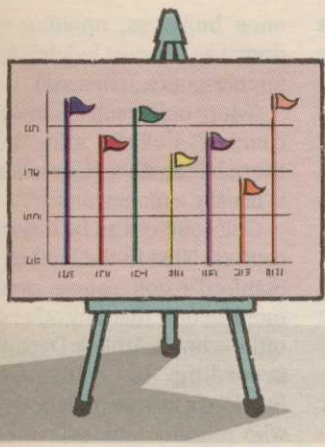
"Our goal is to help people develop themselves so that they — and the operation — are the best they can be."

Jack Kolb, instructor for the Turf Management course, said, "The main thrust of the course is to give students the 'whys' — not to tell them how to cut the greens. We also hit safety real hard."

During 15 two-hour sessions, the Turf Management course covers tractor safety, equipment and tool safety, human relations skills, plant pest control, plant nutrients and turf management techniques.

Royal Golf & Tennis pays the tuition fees for

Continued on page 36



MICH. OWNERS FORM CHAPTER

Michigan golf course owners have formed a chapter of the National Golf Course Owners Association.

President Jim Scott, owner and operator of four courses including Gull Lake View Golf Club and Resort in Augusta, said owners "will now have a better opportunity to share information and work toward solving mutual problems. We also have plans to promote the game of golf in our state. As a state chapter we are looking forward to a close relationship with the national association."

Vice president is Bill Howard of Sasketoon Golf Club in Alto, and secretary/treasurer is John Dodge of Timber Ridge Golf Club in East Lansing.

Mike Hughes, executive director of the NGCOA, said creating organizations in each state is important so owners can easily work together on mutually important issues.

"With the legislative and regulatory pressures coming to bear on the golf business, everyone should realize the need to act on both the national and state level," Hughes said.

Hughes said the Charleston, S.C.-based NGCOA has nearly tripled the number of member courses in the last eight months and now includes 900.

VA. COMPANY BUYS THE RESERVE

PORT ST. LUCIE, Fla. — Owners of The Reserve Golf & Tennis Club have signed a letter of intent to sell the facilities to a Virginia-based company. The new owners plan to build a second 18-hole championship course.

Michael Dillman, executive vice president of The Reserve Estates Development, said only the golf and tennis club portion of the 2,690-acre residential development will be sold to The Golf Group, of Leesburg, Va.

Currently, club membership is restricted to residents of The Reserve. Dillman said that policy may change. Still being negotiated, he said, is whether one of the Reserve Golf Courses will become semi-private.

Day-to-day management will be turned over to Landmark Club Management Co., Landmark manages The Palm Beach Polo Club, among others.

CLUB ARTWORK AVAILABLE

BRIDGEPORT, Pa. — Country Club Editions is making available limited edition commissioned art exclusively to golf and country clubs.

Clubs pick a scene, supply photographs or a video, and Country Club Editions will have paintings done by award-winning artists.

Country Club Editions was formed by Bill Vare, a golf enthusiast and former tournament chairman for Manufacturer's Country Club in suburban Philadelphia.

Number of university golf courses growing slowly

Continued from page 33

and Oregon State University.

Some of the most famous golf course architects have designed university courses including Charles Blair Macdonald at Yale; William P. Bell at Stanford; Robert Trent Jones Sr. at the U.S. Air Force Academy; Pete Dye at Arizona State University; Perry Maxwell at the University of Oklahoma; Donald Ross at the University of Florida; and Alister Mackenzie at the University of Michigan.

Many university courses, in-

cluding Yale (1926) and Stanford (1930) were built during or on the fringe of the Roaring '20s. The next major construction boom occurred with the aid of federal money in the 1960s when courses at the universities of New Mexico, Georgia and Missouri came on line.

But with federal monies drying up, "no more than a handful of new university courses" have been built since 1975, according to Whitten. University Ridge, Karsten and Trysting Tree at Oregon State University in Corvallis are among the

few.

"You really need a big private contributor to build a university project today," Whitten said.

At the University of Wisconsin, local businessman Karl Dietze and a second anonymous donor were the major contributors, kicking in roughly \$1 million each, Director of Golf David Steffan said. At Arizona State, Ping President Karsten Solheim provided much of the funding.

Schools have become involved in golf courses for many reasons,

Collings said. Often it's to provide a place for the golf team to play. The faculty and alumni may enjoy the game and decide a course would be a nice thing to build or acquire.

Sometimes it's an added amenity to attract new students and alumni back to the campus. It can provide a field laboratory for agronomy and business management students. Or it's simply a way to improve the university for students and the community.

Some schools are also using their courses to attract summer confer-

ence business, opening empty dorms as low-cost lodging for conference-goers, Jones said.

"More universities want to build courses," Collings said. "It gives the public another place to play and is usually a money maker."

Golf courses can be major profit centers. Next to the football team, Stanford's golf course produced more income than any other aspect of the school's Athletic Department, according to Andy Geiger, Stanford's former athletic director, who recently took over the same post at the University of Maryland.

Keeping a university course among the top 100 in the nation is difficult, considering the number of rounds and lack of resources at most school facilities, Geiger said. Stanford installed an \$800,000 irrigation system, helping it climb back into California Top 20 courses during Geiger's tenure at the Palo Alto school. Geiger said he and others also encouraged Stanford to use some of its 8,800 acres to expand the course, an idea still under consideration.

Maryland is also in desperate need of renovations, said Geiger, who plans to seek university and private funds to improve the facility.

Some question whether building and renovating golf courses is consistent with a school's educational mission. Believing university resources should be used elsewhere, opponents of a proposed golf course at Southern Illinois University at Edwardsville helped bring the project to a halt.

"It's been on hold since last fall," said SIUE Assistant Athletic Director Brad Hewitt. "The state's financial problems were largely responsible. The protests have died down and the opponents have moved on to other causes for the most part. Even local competitors (other golf courses) that were against it are starting to get tired of the complaints about lack of starting times at their courses and see the need for another course."

Asked if building and renovating golf courses were incompatible with a university's mission, Geiger replied, "I don't see a well-run operation as being inconsistent, especially if it pays or helps ease taxes, does not use academic funds to make repairs and generates revenue that is re-invested in the course."

Golf ticket

Continued from page 33

thing like 240 rounds a day," Adams said.

As for Universal, it makes money in three ways. First, many courses charge less than \$32, or some multiple thereof, and Universal pockets the difference. Second, Universal gets its money up front from ticket buyers and gets to use those funds until the ticket is redeemed. Third, not every ticket sold is used (although purchasers of a certain number of tickets can return the unused ones for credit toward next season's purchase) and that "breakage" helps Universal.



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CIRCLE #130

Built to Last

Endowment program pays for Duke course repairs



Improvements to the 10th hole at Duke University Golf Course were made through an endowment program

By Peter Blais

With the recession forcing universities to cut back expenses, renovating school golf courses is usually a low priority. Many university facilities, some of which are among the finest courses in the country, are falling into disrepair.

That was the case until two years ago at Duke University, the Durham, N.C. home of the reigning NCAA college basketball champions and one of the finest Robert Trent Jones, Sr. courses to be found anywhere, according to Duke Athletic Director Tom Butters.

"It was starting to look like a lot of university golf courses," Butters recalled. "We just didn't have the money to keep it up the way

we should."

About that time, Butters held a brainstorming session with his staff on how to raise money to make the improvements the 30-plus-year-old course so desperately needed.

Someone hit on the idea of endowing every hole to the tune of \$100,000 and the driving range for \$200,000. It was a good idea, but would anybody buy it? Butters tried it out on a friend, who immediately offered to be the first to sign up.

"In just a few weeks, we raised \$2 million," Butters said. "We used \$1 million to improve the course and set aside another \$1 million to help maintain the improvements. It's turned us into one of the best university courses in

the country again."

With the initial \$1 million, the school rebuilt all 18 tees and four greens; installed a two-line irrigation system; remodeled all 42 bunkers and added six new fairway bunkers; cut back 35 feet of trees that had grown in along all fairways; planted \$100,000 of flowers and trees and developed a \$16,000 master plan as part of a \$300,000 course beautification program; re-did all the cart paths; and widened and lengthened the driving range.

To help maintain the improvements, Duke hired Paul Jett as superintendent last September. Jett had previously been superintendent of courses No. 1 and 4 at Pinehurst Country Club.

In return for their pledges, each donor was given a permanent locker, lifetime membership and a stone marker placed at the tee of their holes and at the practice range reading "In lasting appreciation to (name)."

Three donors, wishing to remain anonymous, had the names of Butters, long-time golf coach Duffy Hagler (practice range) and present golf coach Rod Myers inscribed on their markers.

"It was an interesting idea and one that worked for us," Butters said.

"The individual contributors seem to be pleased with our efforts to bring the course back to where it really should have been all along."

Chamber honors golf course owners

STOCKTON, Calif. — Ty and Nancy Caplin, owners of Elkhorn Country Club in Stockton, Calif., have won the Greater Stockton Chamber of Commerce Small Business Person of the Year Award.

The award, honoring a small business owner demonstrating staying power, growth in number of employees, increased sales volume, innovativeness of service, response to adversity, and contributions to the community, was presented to the Caplins at a ceremony May 4.

During their 13 years at Elkhorn, the Caplins have increased membership from 150 to its maximum of 530, with 57 waiting to join.

An incoming director of the PGA of America, past president of the Northern California Section of the PGA and winner of the Bill Strausbaugh Club Relations Award, Ty Caplin's commitment to projecting and maintaining the professional image of golf is evident in Elkhorn's daily operations, in which he is very involved.

Elkhorn's outside tournament program and

award-winning Junior Golf program attract many members of the community to the facility.

Ty Caplin is a PGA Class A-4 Golf Professional. Nancy is Elkhorn's office manager.

Winning the local award qualifies the Caplins to compete for the state of California Small Business Person of the Year Award.

Dupuis named Shaker Hills Director of Golf

HARVARD, Mass. — Peter P. Dupuis has been named director of golf operations at the new Shaker Hills Golf Club, which opened July 4.

Dupuis is a resident of Amherst, N.H., and a Class A member of the Professional Golfers Association.

Prior to coming to Shaker Hills, he served at Amherst (N.H.) Country Club. He has been the head professional and golf course manager at Fort Devens Golf Course in Ayer, Mass., and served at Cochecho Country Club in Dover, N.H.

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S.C. resorts and educational institutions combine efforts

Continued from page 33

all students who receive a satisfactory grade.

And the response from employees was even greater than anticipated. The Turf Management class, open to

20 students, was filled by employees of Royal Golf & Tennis. So the Career Education Center decided to offer the

same class on separate nights to employees of other area resorts.

"This pilot program has been a

good start," Vaughan said. "We like being a good neighbor and, from this, many good things have happened. We invited other major resorts to participate in the program and the response has been overwhelming. Sea Pines, for example, has commissioned the same Turf Management course and three other properties are participating with us in the Horticulture course.

"We're very pleased with the response of our associates, to know they have an eagerness to learn," Vaughan said. "We want people to get excited about education."

According to Kolb, a Clemson Agricultural Education graduate who has taught secondary students at the vocational school for 10 years, students are excited about the courses.

"It's a real pleasure teaching adults," he said. "They are so willing to learn. Many of the students were apprehensive about being back in the classroom after being in the workplace for 10 or 15 years, so we keep it real informal and low key."

According to the students themselves, Kolb's approach works.

"It's definitely been worth the time," said Jerry Rivers, who has operated turf equipment for the past six years. "We learned about safety and human relations and other things you just don't pick up on the job."

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CIRCLE #133

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September 16-17, 1991

**Oak Brook Hills Hotel and Resort
Oak Brook, Illinois**

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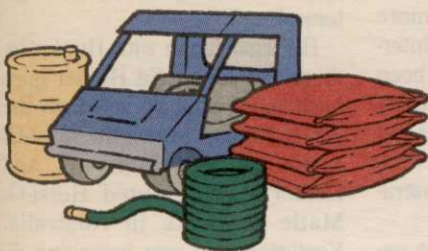
- Learn the latest trends on the growth of golf facilities and the key growth segments
- Evaluate your strategy for reaching new courses or soon-to-be renovated courses
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- Break into the burgeoning international golfing market—it's easier than you think
- Examine the latest trends in marketing and advertising—and how to assess a successful campaign
- Generate leads and expand your sales to beat your competition in converting those leads into sales

Designed and developed by:

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NEWS**

For more information call (207)846-0600

Briefs



JENSEN JOINS TURF-SEED

HUBBARD, Ore. — Vanessa Jensen has joined Turf-Seed, Inc. as Mid-Atlantic marketing manager and technical service representative.

Jensen will assist distributors and dealers with technical questions and will help introduce the new Turf-Seed products.

Jensen has been involved with the turfgrass industry for 19 years, earning several awards and honors, and is immediate past president of the Maryland Turfgrass Council.

Distributors and dealers in the Mid-Atlantic states may contact her at 301-855-1142 or through Turf-Seed, Inc. at 800-247-6910 or 503-981-9571.



Vanessa Jensen

MELEX, UDC INK DEAL

RALEIGH, N.C. — Melex USA, Inc., a golf car manufacturer, has secured a national account agreement with UDC Homes.

Melex has already provided fleets to two of the homebuilders' golf courses. UDC is a national homebuilder and owns or manages golf courses in Florida, Arizona and California.

Melex will supply the UDC golf courses with Model 412 and Model 252 cars. Melex Executive Vice President C.W. Sharek said, "UDC has been very pleased with the way our cars have performed at their Gold Canyon Resort in Arizona and as a result they have decided to use Melex at their other properties."

HANCOR OPENS NEW PLANT

BAKERSFIELD, Calif. — Hancor, Inc., a national manufacturer of plastic (high-density polyethylene) drainage products, has begun production in a \$4-million manufacturing plant here. The 30,000-square-foot facility employs 25 persons.

Hancor's Hi-Q storm drainage pipe, TiteLine (a Hi-Q watertight system) and heavy-duty corrugated products for culvert, field and edge drainage, are manufactured here.

The company anticipates that production of all its drainage products soon will be underway at the local plant.

Based in Findlay, Ohio, Hancor has 12 other pipe-manufacturing facilities in 12 states, including Patterson, Calif.

LEWIS PROMOTED AT COLUMBIA

DEERFIELD, Wis. — Larry L. Lewis, former service and parts manager for Columbia ParCar, has been promoted to materials manager.

He will be responsible for managing all purchasing, inventory, shipping and receiving.

Lewis graduated from Knox College, Galesburg, Ill., with a bachelor's degree in psychology and concentration in mathematics. He is a member of the American Production and Inventory Control Society.

Toro sues Fuqua over trademark rights

Minneapolis-based company claims it has right to the word "recycle" for advertising lawn mowers

By Thyra Porter

The Toro Co. has sued Atlanta, Ga.-based Fuqua Industries, Inc., over Fuqua's Snapper Power Equipment Division's use of the word "recycle" in advertising its lawn mowers.

Toro, headquartered in Minneapolis, Minn., alleges trademark infringement and unfair competition, and is seeking financial remuneration for damages and injunctive relief.

Toro has federally registered the term "Recycler" as a trademark in connection with specific Toro power mowers designed to finely chop grass clippings collected during mowing, and scatter the mulch back into the soil.

In the lawsuit, filed in the U.S. District Court for the District of Minnesota, Toro charges that Fuqua's simulation of Toro equipment's appearance and use of variations of the word "recycle," in connection with its advertising and sale of Snapper power mowers, infringes on Toro's Recycler trademark and constitutes deceptive trade practices.

According to Fuqua's trial lawyer in this case, Charles Mays, Fuqua has counter-claimed to cancel the Toro "Recycler" trademark registration, claiming the word

"Recycler" is either generic or descriptive when used on a lawn mower.

Mays also defended Fuqua's use of "recycle" and its variations in advertising the Snapper products, as "fair use."

"We don't make trademark use of it," Mays said. "We use it descriptively."

At issue, according to Toro senior patent attorney Larry Buckley, is whether a name said too much about the product.

"Courts will not allow you to protect a product name that is too descriptive," Buckley explained.

"Let's say, for example, you tried to protect the trademark 'wooden' for a door. The courts would say you're over-reaching, taking the word out of the parlance and trying to monopolize it. But it is quite possible to take a common word out of the dictionary and turn it into a trademark as long as it isn't too descriptive," Buckley said. "Apple for computers, for example."

Buckley also alleged the actual appearance of the Snapper products underwent a change and now closely resembles the Toro mowers. The Toro products have red housing, black engines, and white-walled tires. Buckley said Snapper mowers used to have red housing, white engines, and white walled tires, but now feature black

engines.

The change in engine color, Buckley said, "could have been a coincidence." But he said Toro is concerned the new look of the Snapper mowers will cause confusion in the marketplace.

"It just so happens that they went to a closer color scheme to ours when they adopted the term recycling... We think consumers are more likely to be confused."

Mays denied the change in the Snapper engine color had anything to do with the look of the Toro product. "I don't think Toro has a monopoly on the red and black color scheme," Mays said. "They certainly don't have a registered trademark on it."

While Buckley said Toro's action is not an attempt to prevent traditional uses of the term "recycle" in connection with the reprocessing of glass, plastic, etc., Mays argued that recycling is a trendy topic, even in the lawn mower business.

Mays pointed out that in Minnesota, where the lawsuit was filed, state law bars grass clippings from landfills. This puts lawn mowers that can compost collected grass clippings in demand. Mays said the word recycle is "not only descriptive of the product, but something that's very hot right now ... a buzzword in the industry."

N.J. superintendent receives free mower from Ransomes Inc.

Cape May, N.J. — Steven Malikowski, superintendent at Cape May National Golf Club, has accepted delivery on a Ransomes Greens 3000. Unlike most new equipment deliveries, however, there won't be an invoice with this one as Malikowski won free use of the mower for a season, courtesy of Ransomes Inc.

"I'm pleased to have won the use of the Greens 3000, and I'm looking forward to putting it to good use this season," said Malikowski, upon receiving the keys from Ransomes' vice president of engineering, Tom Stuart, and distributor sales manager, Mark Ericson.

Steven Willand Inc. of Augusta, N.J., distributor for Ransomes and Cushman Ryan turf equipment, will provide support.

Malikowski's name was randomly selected in a drawing sponsored by Ransomes Inc. at the International Golf Course Conference and Show in Las Vegas last February.



Cape May National Golf Club superintendent Steven Malikowski, seated, receives the keys to his free mower from Ransomes distributor Mark Ericson, center, and Vice President of Engineering Tom Stuart.

TOCA adopts guidelines for advertising materials

New slate of officers named; writing awards also presented

ST. LOUIS — Advertising guidelines designed to help green industry companies and their agencies develop communications materials were adopted by the Turf and Ornamental Communicators Association during its annual meeting here, May 4-6.

The guidelines cover issues dealing with the environment, operator safety, sensationalism, sexism, and timeliness, according to Den Gardner, TOCA's executive director.

Meanwhile, a new slate of officers was elected, led by President Pat Jones, communications director for the Golf Course Superintendents Association of America.

Bob Tracinski of John Deere was elected vice president; Cindy Code of Lawn & Landscape Maintenance magazine, secretary/treasurer; and Jose Milan of Ciba-Geigy and Dale Keller of R/K Communications Group, Inc., directors.

In its second year of existence, TOCA is composed of 80 members who are editors, writers, photographers, public relations practitioners and others involved in green industry communications.

Other TOCA annual meeting activities included presentation of awards for TOCA's first annual writing and photography contest.

First-place winners in the photography program were Diane Clow, Rhea & Kaiser Advertising, Inc., general photography; Bob Tracinski, John Deere, news shots;

and Dee Darden, R/K Communications, field shots.

Tracinski also was presented a merit prize in the general photography category.

First-place writing awards were presented to Sandra Hensel Marting, Professional Lawn Care Association of America, collateral/direct marketing; Bob Hanvik, Mona, Meyer & McGrath, newsletters; and Tracinski for commercial publications.

Announcement of a scholarship program sponsored by TOCA also was made during the meeting.

Grants from GIE Publishing Inc., and Edgell Communications Inc., were made to initiate the program. Scholarship guidelines will be developed during the next few months.

GCN marketing seminar scheduled for Sept.

YARMOUTH, Maine—Suppliers of products and services to the golf industry should plan to attend "Marketing to Golf Course Facilities."

The seminar, sponsored by *Golf Course News*, will be held Sept. 16-17 at Oak Brook Hills Hotel and Resort in Oak Brook, Ill.

The program will focus on the market needs of golf facilities and the development of market strategies to meet those needs.

Seminar topics will include trend data on the growth and changes in golf facilities; buying habits of golf course market segments, includ-

ing superintendents, developers, builders and management company decision-makers; international marketing; successful green marketing; and results-oriented sales.

According to *GCN* Publisher and Conference Chairman Charles von Brecht: "We at *Golf Course News* are uniquely positioned to develop this seminar for suppliers to the industry. Each month we're devoted to providing the latest information and coverage of golf course facilities."

The program is designed for CEOs, sales/marketing vice presidents and directors, sales manag-

ers, and marketing communication managers in companies offering products and services at golf course facilities.

The program is also aimed at advertising media directors or account representatives for producers of chemicals, commercial mowing equipment, golf course accessories, golf cars, utility vehicles, irrigation equipment, seed and sod. Distributors and other suppliers are also urged to attend.

For more information or to register call conference group manager Rebecca Quinlan at 207-846-0600.

Kesterton named to Australian post

Philip Kesterton, an irrigation industry professional with more than 20 years' experience in international sales and service, has been appointed the Hunter Industries managing director for Australia and New Zealand.

He is based in Sydney, Australia.

Widely-acquainted with the expanding irrigation markets of Australia, Southeast Asia and the Pacific Rim, Kesterton will be responsible for the sales and technical support of all Hunter product lines, including residential and commercial

sprinklers and golf irrigation systems.

His association with Hunter Industries founder Ed Hunter goes back more than 30 years. In the 1960s, Hunter headed the Hoist-O-Matic sprinkler company, and Kesterton distributed Hoist-O-Matic products in Australia. Kesterton also was managing director for Toro Australia from 1974 to 1987.

Before joining Hunter, Kesterton completed a three-year sailing voyage of the South Pacific with wife Wendy.

Southern Turf promotes Tew

NORCROSS, Ga.—Dr. Thomas L. Tew has been named general manager at Southern Turf Nurseries' Oahu, Hawaii, production farm.

Prior to joining Southern Turf, Tew was head of the plant pathology department experiment station for the Hawaiian Sugar Planters' Association. He has more than 20 years experience in various disciplines of agronomy and plant breeding and brings to Southern Turf extensive knowledge of agricultural production techniques in the Hawaiian region.

Tew received a bachelor's degree in agronomy from Brigham Young University, a master's degree in plant breeding, and a Ph.D. in plant breeding from the University of Minnesota.

Southern Turf Nurseries' Hawaii farm will offer a full line of products and services including the Tifway 419, Tifgreen 328 and Tifdwarf Bermudagrasses and Zoysiagrasses. All turf produced on the Hawaii farm will be Hawaii Certified Quality.

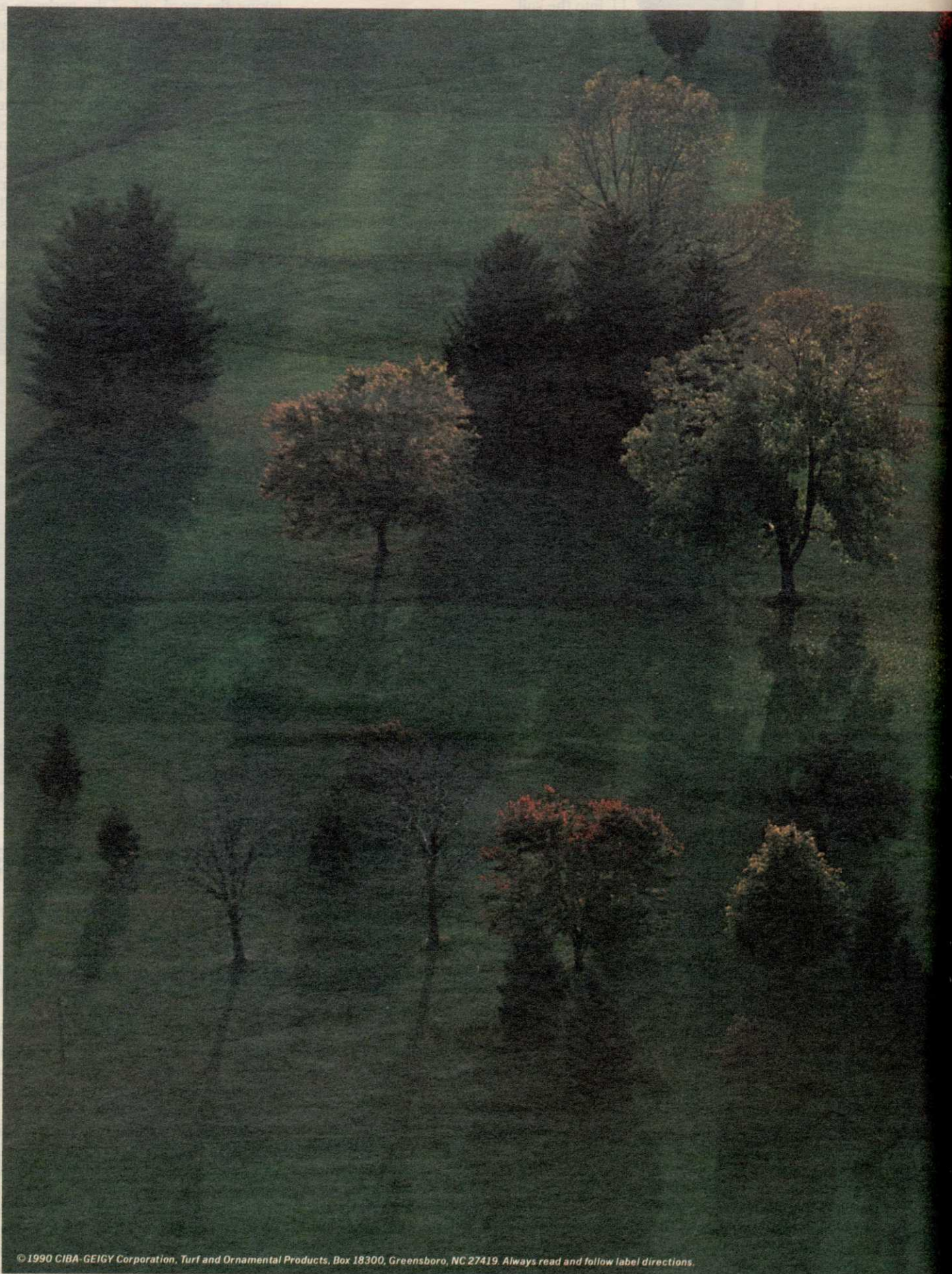
Skorepa named new Mobay rep

Mobay Specialty Products Group has announced that Richard Skorepa is the new sales representative in Ohio, Kentucky and southern Michigan.

Skorepa worked in the Peace Corps in South America in agriculture and tropical cropping systems from 1974 through 1976 and received a bachelor's degree in agronomy from the University of Missouri in 1977. He went on to achieve his master's degree in plant pathology at MU in 1983.

Skorepa served at the University of Missouri Extension Office in Columbia, Mo., in the area of integrated pest management from 1980 to 1985. He was production manager for evergreen lawns in St. Louis from 1985 through 1986, and was an ornamental and turf pathologist for Horticultural Consultants in St. Louis from 1986 through 1987.

Skorepa went on to serve at The Brickman Group in the capacities of turf supervisor, chemical purchaser and estimator from 1988 to 1991.



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New ladders protect workers and surfaces

GREENVILLE, Pa. — R. D. Werner Co., Inc. has introduced two ladders designed for safety and surface protection.

The True Grip extension ladder increases slip-resistance, protects surfaces from damage, increases ladder contact area and provides "super gripping" for added safety.

It features replaceable rubber pads and disposable fleece bonnets.

Rail clamps adjust to rail width and transfer the work load to the rails.

The strong mounting system easily attaches with just one U-bolt and rail clamp.

The Level-Master aluminum automatic ladder leveler adjusts and locks for uneven surfaces.

Automatic leveling is provided via a double rack and pinion action, attached by a shaft through the bottom rung of the ladder. When the ladder is unweighted and held vertically, the leveler lock releases.

When both feet are lowered to the ground, the legs auto-

matically adjust and the weight of the ladder locks the leveler device.

This new ladder accessory is attached to the ladder with bolts that lock it into the siderails. It has a maximum adjustment of 8-1/2 inches and when mounted is 3-1/2 inches wider than the ladder.

For more information on the True Grip extension ladder or any Werner product contact R. D. Werner Co., Inc., P. O. Box 580, Greenville, Pa. 16125. (412) 588-8600.

CIRCLE #301

Salsco offers three new chippers

CHESHIRE, Conn. — The new Salsco Stallion chipper/shredders line lists three models: 5-hp Briggs, 7.9-hp OHV Kawasaki, and 8-hp Briggs.

These units will handle 3-1/2-inch logs in the chipper side, and brush up to 3/4-inch thick in the shredder side.

Salsco also has introduced a powered curber. Weighing only 172 pounds, this compact machine is easily transported. It installs straight and curved curbing.

The machine is propelled by a 5-hp Briggs and Stratton engine which

compacts material into the mold. Its size (48-by-23 inches) makes it efficient in tight areas, and is ideal for curbing driveways, parking lots and around planted areas.

Contact Salsco, Inc., 105 School House Road, Cheshire, Conn. 06410 (800)-8-Salsco.

CIRCLE #302

Tahoe 501 makes various lighting effects possible

WESTLAKE VILLAGE, Calif. — The Tahoe 501 is part of a new, patented, low-voltage series of 6-inch miniature bollards.

It was created to furnish landscape professionals with a tool providing unlimited ways to devise outdoor lighting effects with a dramatic yet inconspicuous fixture.

Featuring a concealed light source, projecting onto an inverted opal cone, Tahoe 501 results in a wide, circular light distribution area, ideal for any garden lighting purpose.

Machined from aluminum, it is zinc chromate conversion coated and finished with baked thermoplastic polyester powder.

Contact Lumiere Design and Manufacturing Inc., 31360 Via Colinas, Bldg. 101, Westlake Village, Calif. 91362 or call 818-991-2211.

CIRCLE #303

Sand trap pump removes water

GREAT MEADOWS, N. J. — Partac Peat Corporation has introduced a new sand trap pump for fast puddle removal.

"Just place the pump in the water and start pumping," Partac notes. It will not clog, and easily pumps 20 gallons per minute without electricity.

Made of lightweight (2.5 pounds) galvanized steel, it is said to solve a superintendent's chronic headache. Sweeping is eliminated. The base disc prevents mud from entering the pump, and the flexible piston and valve are unaffected by sand. It won't make a bigger hole.

Contact Partac Peat Corporation, Kelsey Park, Great Meadows, N. J. 07838. (800) 247-2326 or (908) 637-4191.

CIRCLE #304

Tire changer for golf cars offered

ENTERPRISE, Utah — A small tire changer originally intended to serve the ATV market may become a useful tool to the golf industry.

The product of ARC-TEC is said to work very well with other small tires such as golf car tires, riding lawn mower tires, small trailer tires and wheelbarrow wheels.

Contact Merrill W. Fisher, P. O. Box 402, Enterprise, Utah 84725. (801) 878-2583.

CIRCLE #305

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The trouble with Pythium is that, unlike some diseases, it simply won't stay put.

All it takes is one hot, sultry night, a little rain, and a few wandering spores from some nearby fairway.

The rest, along with your favorite green, is history.

The alternative, of course, is to prevent Pythium in the first place — everywhere — with Subdue.

Available in liquid or granular formulations.



CIRCLE #135

Book details Northwestern U.S. courses

A new book detailing golf courses in the Northwest United States was recently published by Alaska Northwest Books.

"Golf Courses of the Pacific Northwest" takes a look at what makes each of the area's 440 courses unique.

In addition to basic information about location, yardages, pars, ratings and greens fees, author Jeff Shelley discusses the people, history, geography and climate that shape each course's personality.

Included are public, semi-private, private and par-3 courses in the

geographically linked sections of Washington, Oregon, Idaho Panhandle, Sun Valley and Northwest Montana.

Chapters open with a map showing locations of the facilities, their configurations, and who can play them. A brief introduction then summarizes the geography, climate and status of golf in the area. Courses in the planning stage when the book was published are described with tentative opening dates.

"I began researching this book in April 1987 and drove over 65,000 miles en route to visiting, playing

and/or touring 75 percent of the courses included here," Shelley writes.

"My travels to the farthest reaches of the Pacific Northwest reinforced my feelings that this region, where I was born and raised, is very special. I approached this book from the position of a writer and a mid-handicapper; I wanted to provide information about a course's playability for average golfers while conveying a sense of uniqueness."

The 329-page book costs \$19.95. For more information contact Rick Paul at 800-331-3510.

Burnet wins International Award

FAR HILLS, N. J. — Bobby Burnet, historian of the Royal & Ancient Golf Club of St. Andrews, Scotland, is the recipient of the 1991 U.S. Golf Association International Book Award.

He was chosen for his work, "The St. Andrews Opens," an historical account of the British Opens played over the Old Course.

The award was presented Burnet during the U. S. Open at Hazeltine National Golf Club in Chaska, Minn.

Burnet's book was the unanimous choice of judges Ray Cave, former editorial director of Time, Inc., and former golf editor of Sports

Illustrated; Robert S. Macdonald, publisher of the series, "The Classics of Golf," and C. A. Wimpfheimer, former vice president and managing editor of Random House.

He was commissioned to write the book by John Donald Publishers, Edinburgh, Scotland.

A member of the USGA Museum and Library committee, Burnet included a narrative of British Opens at St. Andrews from 1873 through 1984, with tables designating winners and their closest competitors, their round-by-round scores, and list of prize money through the years.

Burnet witnessed his first British Open at St. Andrews in 1933, when Denny Shute beat Craig Wood in a 36-hole playoff. He also attended British Opens in 1957, 1970, 1984 and 1990.

Spray calibration program offered

WHEATON, Ill. — Spraying Systems Co., manufacturer of Teejet brand spray products, offers "Calibration of Turfgrass Sprayers."

This step-by-step slide program is designed to maximize chemical effectiveness and minimize environmental risks.

This 16-minute, single-projector presentation includes a narrative tape which can be advanced automatically or manually with a detailed script.

The program walks through the entire calibration process for spray gun applications, boom and boomless spraying, and is ideal for turf education classes, grounds maintenance supervisors, landscapers and others interested in turf production and maintenance.

Contact Spraying Systems Co., Agricultural Division, North Avenue at Schmale Road, P. O. Box 7900, Wheaton, Ill., 60189-7900. (708)-665-5201.

Wittek releases product catalog

Wittek Golf Supply Co. has published its 1991-92, full-color equipment catalog.

The 116-page brochure contains more than 2,000 golf industry products.

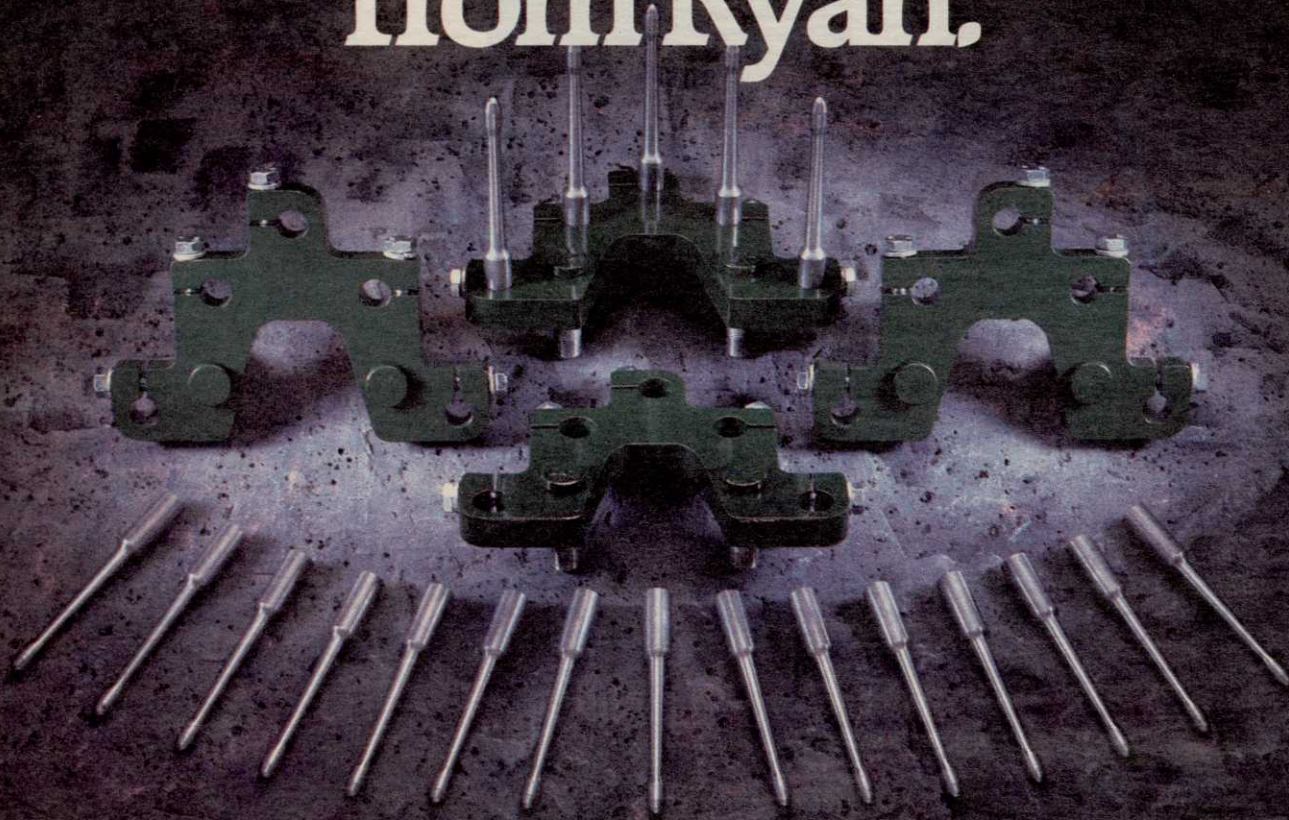
It features American-made equipment and supplies for golf ranges, golf courses and miniature golf courses.

It also contains an array of display fixtures for golf shops and a complete line of accessories.

New Wittek Golf Supply products include lighting systems for golf ranges; the Ball Hawk SL90 ball picker; new, two-piece, American-made range balls; oak displays for clubs; slatwall; and an interior design service for golf shops.

The catalog is available by calling Wittek Golf Supply Co. at 800-869-1800.

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650 Pinkerton Road
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Tom Harris 602/262-5521

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- Two (2) John Deere 22" walking greensmowers, Model 1987. \$1,000 each.
- One (1) John Deere 935 72" rotary mower, 1987 Model, 427 hours, in excellent condition. \$7,300.
- One (1) John Deere 935 72" rotary mower with power brush, 1987 Model with 1,150 hours. \$6,500.

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10-12 - Northern Seed Assn. summer meeting at Rapid City, S.D. Contact Robb Sexauer at 605-692-6171.

12-13 - NGF seminar on public/private course development partnerships in Palm Beach Gardens, Fla. Contact Roger Yaffe at 800-733-6006.

15 - Joint GCSA of New England/New Hampshire GCSA meeting in Lowell, Mass. Contact Paul Miller at 508-369-5704.

16 - Mississippi State Univ. Turfgrass Field Day at Starkville. Contact Euel Coats at 601-325-3138.

29 - Missouri Turfgrass Field Day at Columbia. Contact Missouri Valley Turfgrass Assoc. at 314-882-4087.

31 - Univ. of Ga. Turfgrass Field Day at Griffin. Contact Extension Conference Office at 912-681-5189.

August

1 - Golf Course Superintendents Association of New England Superintendents Championship at Weston CC. Contact Paul Miller at 508-369-5704.

1 - Nat'l Turfgrass Evaluation Program Research Field Day in Beltsville, Md. Contact Kevin Morris at 301-344-2125.

4-6 - Georgia GCSA Summer Conference and Outing at Lake Lanier Islands. For more information contact 404-945-8787.

6-8 - Field diagnostic course for turfgrass managers in Ithaca, N.Y. Contact Joann Gruttadaurio at 607-255-1792.

7 - Illinois Landscape Contractors Association Summer Field Day in St. Charles, Ill. Contact ILCA at 708-932-8443.

8 - MNLA Summer Meeting and Trade Show in St. Paul, Minn. Contact Minnesota Nursery and Landscape Association at 612-633-4987.

8 - Rutgers Turfgrass Research Field Day in Freehold, N.J. Contact Edmund Milewski at 201-285-8300.

16-18 - TAN-MISSLARK Regional Nursery and Garden Supply Show in Dallas. Contact Texas Association of Nurserymen at 512-280-5182.

17-19 - West Coast Golf Show in Long Beach. Contact Southern California PGA.

22 - Michigan State University Turfgrass Field Day, Trade Show and Equipment Auction in East Lansing. Contact 517-353-2033.

25-27 - National Lawn, Garden and Power Equipment Showcase in Toronto, Ontario, Canada. Contact show producers at 705-741-2536.

September

1-3 - International Garden Trade Fair in Cologne, Germany. Contact show producers at 212-974-8836.

3-5 - IoG Sports & Leisure World Trade Exhibition in Peterborough, England. Telephone 0908 311856.

6-7 - GCSAA 65th anniversary and dedication of new headquarters building in Lawrence, Kan. Contact GCSAA at 913-841-2240.

7 - Georgia GCSA Nob North Golf Outing at Cohutta. Contact Karen White at 404-769-4076.

13-15 - Florida Nursery and Allied Trades Show in Orlando, Fla. Contact FNGA at 407-345-8137.

15-17 - GMA Show-International Professional Lawn, Garden and Outdoor Power Equipment Exhibition in Kempton Park, United Kingdom. Contact Andry Montgomery Group at 502-473-1992.

Continued on page 43

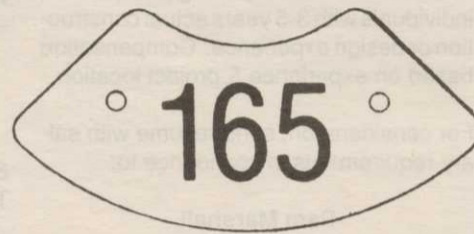
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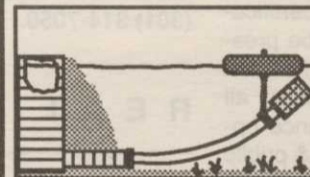
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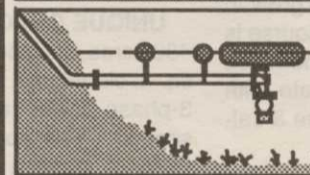
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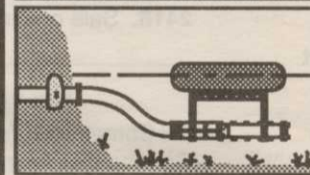
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16-17 — *Marketing to Golf Facilities Seminar in Chicago* sponsored by *Golf Course News*. Contact Becky Quinlan at 207-846-0600.

16-19 — *Northwest Turfgrass Conference and Exhibition in Couer d'Alene, Idaho*. Contact NTA at 206-754-0825.

17 - *Metropolitan GCSA Professional Turfgrass Field Day at Rye N.Y.* Contact Bob Lipmann at 914-248-7476.

17-19 - *Va. Tech. Turf & Landscape Field Days in Blacksburg*. Contact J.R. Hall III at 703-231-5797.

25 — *25th Annual CGSA Fall Field Day at Carling Lake Golf & CC in Lachute, Quebec, Canada*. Contact Canadian Golf Superintendents Association at 800-387-1056.

October

2-3-31st *Annual Southern Calif. Turfgrass Expo in Costa Mesa*. Contact Chuck Wilson at 714-951-8547.

7 — *Allied Association Meeting at St. Ives CC and Bend CC*. Contact Georgia GCSA at 404-769-4076.

13-15 - *Fla. Turfgrass Annual Conference & Show in Jacksonville*. Contact 407-898-6721.

24-26 — *Summit 91 Women in Golf in Daytona Beach, Fla.* Contact LPGA at 9040254-8800.

November

3-5 — *Georgia GCSA Annual Meeting at Jekyll Island Club Resort*. Contact Georgia GCSA at 404-769-4076.

5-6 — *Indiana State Lawn Care Association Conference and Show in Indianapolis*. Contact ISLCA at 317-575-9010.

5-8 — *New York State Turfgrass Association Turf and Grounds Exposition in Rochester, N.Y.* Contact NYSTA at 800-873-TURF.

7-10 - *Golfworld 91 in Dusseldorf, Germany*. Contact Monika Waraczynski at (0211) 45600-543.

10-13 — *International Irrigation Exposition in San Antonio, Texas*. Contact The Irrigation Association at 703-524-1200.

14-16 — *Landscape Maintenance Association Meeting and Demo at a site to be announced*. Contact LMA at 813-584-2312.

17-21 — *Green Industry Expo in Tampa, Fla.* Contact PLCAA at 404-977-5222.

19-20 — *4th Annual Southern Grounds & Turf Maintenance Exhibition and Conference in Myrtle Beach, S.C.* Contact S.C. State Board for Technical & Comprehensive Education at 803-737-9355.

19-21 — *Inland Northwest Turf and Landscape Conference and Trade Show in Spokane, Wash.* Contact show producers at 800-729-5904.

December

2-6th *Your Home Turf at Michigan State University in East Lansing*. Contact Dr. Frank Rossi at 517-353-0860.

2-4 - *14th Annual Turf & Ornamental seminar at ABAC, Tifton*. Contact 912-386-3449.

3 — *New Hampshire GCSA Annual Meeting in Concord, N.H.*

3-4 — *Southern Grounds and Turf Maintenance Expo in Myrtle Beach, S.C.* Contact show producers at 800-553-7702.

8-11 — *CGSA's 43rd Annual Canadian*

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Continued from page 43

Turfgrass Conference and Trade Show and 25th Annual Meeting in Toronto. Contact Canadian Golf Superintendents Association at 800-387-1056.

9-11 — 22nd Annual Georgia Turfgrass Conference and Trade Show in Atlanta. Contact Extension Conference Office at 912-681-5189.

9-12 — Ohio Turfgrass Conference and Trade Show in Cincinnati. For more information contact Ohio Turfgrass Foundation at 614-292-2601.

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January

13-14 - GCSAA Two-Day seminar on golf course design principles. Contact Karen White at 404-769-4076.

13-16 - 32nd Va. Turf & Landscape Conference & Trade Show. Contact Randeem Tharp at 804-340-3473.

16-18 - Mid-Am Trade Show in Chicago. Contact 708-526-3993.

20-22 - 62nd Annual Michigan Turfgrass Conference in Lansing. Contact Mike Saffel at 517-353-9022.

February

10-17 - GCSAA Annual Conference & Show in New Orleans.*

* — 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.

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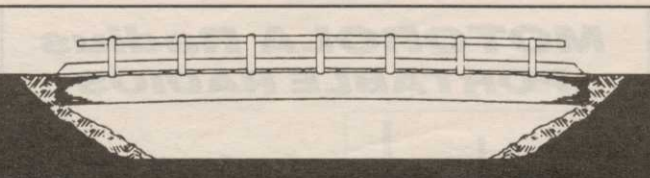
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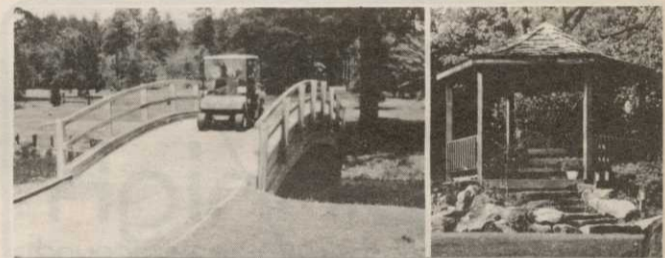
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CIRCLE #179

when he has to cool down the course with water during a hot day.

It's also a point of interest for golfers who, like most everyone else, are fire engine buffs.

Golden tells of a company outing Springbrook hosted. He heard a noise out on the course, drove to it and found "a group of guys all over the firetruck. They had turned on the lights. The siren. And they were throwing dollar bills and quarters up onto the hose bed. They thought it was wonderful. They were just like kids. It was hard to be upset with them because a firetruck seems to bring that out, even in the oldest people..."

"People come up that 18th path, or 4th green, and can't resist going down and looking at it."

Golden said the firetruck's "negatives" are few.

Cutting off water to individual greens must be done mechanically. Isolating individual greens for watering is also difficult.

Once the pond flooded. When water reached the running boards, then-superintendent Kyle Evans had to make an emergency exit, driving the truck up a steep embankment.

Another time, dry grass under the LaFrance caught fire when the truck was started. Evans made "the fastest ride across this golf course in a Toro tractor that has ever been made," Golden laughed. "Our mechanic, Steve Beland, threw some dry chemicals up under the truck and managed to slow the fire down enough so that when Kyle got back they were able to put it out."

And the timing must be right moving the heavy LaFrance over fairways to the pond in the spring and back to its garage roost at the end of the season.

"We have to wait for the ground to firm up," he said. "Usually we get it set up the first or second week of May and pray we haven't had too much rain."

Are firetrucks a viable alternative for other courses?

Surprisingly, Golden thinks probably not. "Things have changed in the fire equipment business," he said. "Buying even a used firetruck in decent shape would probably cost too much..." Certainly more than the zero Springbrook paid for Brooks' present.

Yet, firetrucks will most likely be a permanent fixture at the pond in the center of Springbrook Golf Club — because of nostalgia if for no other reason.

"At night it's kind of nice," he said. "Steve (Beland) and I go down to the pond. He starts the truck up and stays with it and watches the pressure."

"I take a four-wheeler and check the sprinkler heads to make sure they're all working... After I make my tour, I come back (to wait out the 30- to 40-minute watering cycle).

"We get in the cab with a heater in the cold nights, a fan in the summer, windshield wipers when it's foggy. It gives us a place to get warm, out of the elements, the bad weather."

"It wouldn't seem quite as luxurious if we just had a pump house. We spend a lot of time down there."

Even Evans, who has installed a state-of-the-art irrigation system at his new course, Waterville (Maine) Country Club, reminisced about the firetruck.

"Do I miss it? Yes — and no. It was simpler. It's easier than trouble-shooting the computer. It's a pump rather than wires, three-phase power, gate valves..."

"But I remember the black flies being brutal at night out on the course."

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CIRCLE #174

When turf gets hot, Golden fires up his firetruck

Maine superintendent uses 1963 LaFrance to water his 18-hole course

By Mark Leslie

"I used to sell firetrucks. Now they're the heart and soul of my golf course," says Joey Golden.

Golden is the owner and superintendent at Springbrook Golf Club in Leeds, Maine, which uses a 1963 American LaFrance diesel engine firetruck to pump water to its 200-acre course. And Golden wouldn't do without the LaFrance, which, he said, is "the single most important piece of equipment we've got."

"We want to replace the piping but I'm not sure we'd part with the firetruck even if someone offered us a pumping station. We have good feelings about that firetruck."

Indeed, Golden declares a conventional pump would not work on Springbrook's bizarre irrigation design.

"You have to see the piping line to appreciate what the truck does," Golden said, showing blueprints with lines that go nowhere, or go straight up a hill rather than at a gradual angle. "That truck is working against odds you can't believe. An engineer would say it can't work. But it just overpowers all the piping deficiencies..."

"It's the same as a pumping station but has wheels and has more umph than anything else around."

The 1,250-gallon-per-minute LaFrance and its predecessor — a 1946 Buffalo 750-gpm gas firetruck — have provided the lifeblood, water, to Springbrook since 1969. That is when Shirley



'...I'm not sure we'd part with the firetruck even if someone offered us a pumping station'.

—Joey Golden

Hamel, Golden's father-in-law, bought the 3-year-old facility.

Hamel, then a Springbrook member, owned a fire equipment company and had taken the Buffalo in trade. He used it to replace a 500-gpm skid pump at the irri-

gation pond. He found the firetruck could water all 18 sets of tees and greens at the same time, something that has amazed visiting superintendents. (The clay-soiled fairways have never needed watering.)



Superintendent and owner Joey Golden, left, hooks up the 1963 American LaFrance fire truck that pumps water to the entire 200-acre Springbrook Golf Club course in Leeds, Maine. The 1946 Buffalo, above, which preceded the LaFrance, rests nearby.

As years went by, Hamel added more irrigation heads to the greens and tees, and still the firetruck was more than sufficient for the demand.

In fact, Golden said he has to hold back the pump to 90-pound pressure. "We have to be careful it doesn't get too high, or we'd blow the pipes right out of the ground, just like in *Caddy Shack*," he said.

"One spring we turned it on and lifted a few mainline pipes with a pressure surge. We respect its power."

When Hamel died six years ago, his daughter, Jeannine, and Golden took charge. Ironically, Golden was a fire engine salesman working for Blanchard Fire Apparatus in Hopkinton, Mass. He knew a lot about firetrucks but nothing about golf courses.

He has been on a high-intensity

learning campaign ever since. Yet the firetruck remains his pet love — and an attraction to his golf course.

In fact, the old Buffalo still resides on the premises. Passersby and golfers have offered to buy it. But his devotion to the old truck outweighs the money.

When the Buffalo's engine let go in July 1988, Golden called old friend Byron Brooks at Blanchard Fire Apparatus. Brooks gave Golden the LaFrance, saying he couldn't think of a better home for a firetruck than a golf course.

Golden is quick to fill in the blanks about both the truck's good and bad points.

Golden said besides overcoming the "nightmare piping system," it costs only \$300 to \$400 in diesel fuel to run each year. He also uses the siren to warn golfers

Continued on page 45



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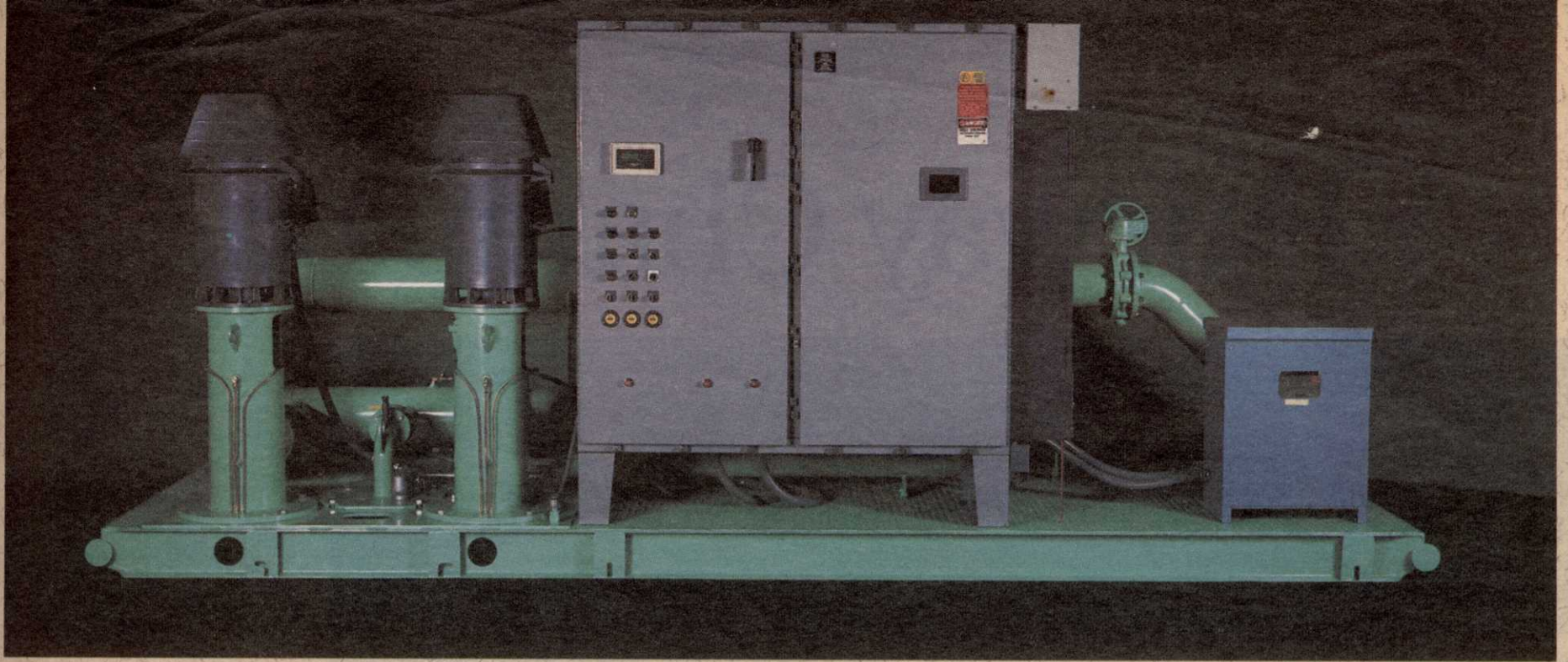
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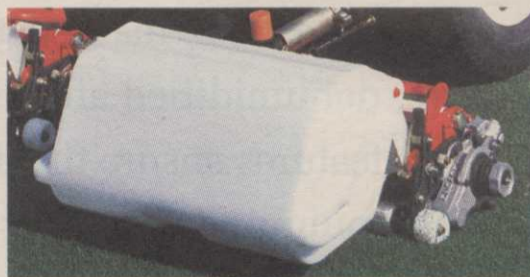


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