

# GOLF COURSE NEWS

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No. 2

**PULL-OUT SECTION**  
Int'l Golf Course Conference and Show  
Pages 35-38

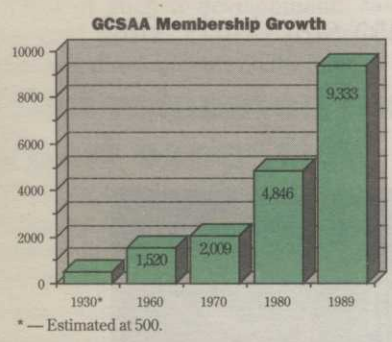
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THE NEWSPAPER OF THE GOLF COURSE INDUSTRY

VOLUME 2 NUMBER 2  
FEBRUARY 1990  
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61st International  
Golf Course  
Conference and Show

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## Changing of the guard

### Lyon ushers out successful term with GCSAA

BY PETER BLAIS  
This month's 61st annual Golf Course Superintendents Association of America International Golf Course Conference and Show will be the highlight of outgoing president Dennis Lyon's term.  
"The Orlando conference (Feb. 19-26) will be the largest and best yet," said the head of the Golf Course Superinten-

dents' Association of America. "All the exhibit space is sold out. We've had to make reservations for more hotel rooms twice already. And we have over 550 people signed up for the superintendents' golf tournament (Feb. 19-20)."  
It has been an exciting and very upbeat year for the head superintendent of the City of Aurora, Colo.'s Golf Division

(three 18-hole public courses and a nine-hole par 3), who will continue to serve on the GCSAA's board of directors as immediate past president.  
Among his major accomplishments over the past 12 months, Lyon lists:  
• The association's strong financial growth, reflected in its new national headquarters in Law-



Dennis Lyon

Continued on page 41

### Faubel eyes 1990 with aggressiveness, optimism

BY PETER BLAIS  
Superintendents good. Government regulators bad.  
Gerald Faubel would likely appreciate the humor if a George Bush imitator uttered those words. But he wouldn't agree.  
"There's no reason for us to be adversaries," said the incoming president of the Golf Course Superintendents Association of America. "We're both trying to

get the same thing. We're working together with the EPA (Environmental Protection Agency) to gain knowledge so we can have an environment that's healthy for everyone."  
Superintendents and environmentalists are coming to blows more and more as golf grows. But if the game is to continue its upward climb, then cooperation rather than confrontation is nec-

essary.  
"The environment is the biggest threat to the game itself," said Faubel. "The growth of the game could be stopped quicker by environmental issues than anything else, even quicker than a change in the tax laws. Right now the tax law is very beneficial to golf course development because of the tax deduction for



Gerald Faubel

Continued on page 40



The second hole at Royal Lakes Golf and Country Club in northeast Georgia shows the handiwork of architect Arthur Davis. For more on new courses see pages 14 and 15.

## Oregon's burning vote in doubt

BY MARK LESLIE  
A governor's ballot initiative that Oregon seed growers feel would cripple their production has been delayed by a snafu in its wording.  
Oregonians Against Field Burning committed an error that might cost the organization the latest battle. Confident that the U.S. Supreme Court would uphold wording in the petition that said the proposed field-burning law would "permit" (rather than "mandate") reduced field burning, OAFB printed 20,000 petitions and mailed 14,000 copies around the state for signatures. When the Supreme Court ruled that the word "permit" must be replaced with "provide," OAFB's petitions were invalid and it entreated the court to rescind its decision.  
"As far as we're concerned, they (the high court) can wait until April or May for a

Continued on page 17

## Underground tanks endangering courses

BY MARK LESLIE  
Citing frightening statistics about the life of underground storage tanks, technical environmental consultant Mary Malotke of Cincinnati, Ohio, warns golf course superintendents to beware that their own situations may become very costly problems.

Many golf courses have underground storage tanks and could face "major dollar costs" to clean any spills of hazardous wastes, Malotke told an Ohio Turfgrass Conference and Show audience.  
Malotke, president of Tencon, Inc., said there are 4 million underground tanks in

the United States and their average age is 17 years.  
"Insurance is required on these tanks, yet we are finding that insurance companies won't cover tanks over 15 years old," she said. "There is a 77-percent chance of leak-

Continued on page 26



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## Japanese pay \$7.6 million for course site

Japanese investors have paid \$7.6 million for 140 acres in New Hempstead village in New York for a proposed golf course attracting Japanese and Korean travelers.

Having bought the land through U.S. Bankruptcy Court in White Plains, Three Little Willows Corp. has already embarked on plans to sell memberships in the course to business travelers.

The court trustee conducting the sale said Three Little Willows plans to sell memberships through Kyowa Bank's corporate clients in Japan and Korea.

New Hempstead Mayor Stanley Teich, for one, relishes the idea of the land being a rest-and-relaxation stop, saying it "will provide a reputation for the village on a worldwide basis."

Herschel Greenbaum, attorney for losing bidder Komi Associates of Japan, said a soft real-estate market and high interest rates made the land more attractive for a course.

He explained: "Recreational facilities do not fluctuate the same way as houses. If there's a demand for a golf course, there's a demand for a golf course."

He added that higher profits that might come from home sales would be offset by the amount of time it would take to win approval of such a development. New Hempstead officials had earlier proposals for housing developments on the land.

## Holes relocated for airport expansion

Livermore, Calif.'s Los Positas Golf Course is relocating several holes to make way for an expansion of the city's airport.

The 36-hole course is being moved west to make room for the enlarging of the airport's main runway from 4,000 to 5,250 feet. The expansion takes in an area that included six holes.

Five new lakes, more undulations, 500 more trees and enlarged greens will make the course more challenging. The relocated course should open in June. Temporary tees have been built allowing play to continue during construction.

## Hawaii taps Horita to build Kapolei

The state has selected Horita Corp. to develop Kapolei Golf Course in Honolulu, Hawaii.

Horita will pay the state a \$25 million lease premium and 10 percent of the annual gross sales. No memberships will be sold and most rounds reserved for Hawaii residents. Horita's proposal beat out those of Watt Corp, Zane Development Inc. and the Odakyu Group.

## Forest district to move holes

Illinois' DuPage County Forest Preserve District has purchased two parcels of land south of the Wood Dale Golf Course, leaving just a half-dozen of the original 22 lots it hoped to buy.

Once the remaining parcels are purchased, the district plans to move several holes to allow for better flood control along Salt Creek.

## Connor moves Golf forms office

Golf forms, the golf course architectural firm headed by Edward H. Connor III, has moved from Casselberry, Fla.

Its new headquarters is 4601 So. Atlantic Ave., Suite 108, Ponce Inlet, Fla. 32127.

## Frisco considers public course

San Francisco, Calif., Mayor Art Agnos is asking his city's public utilities commission to review plans for a \$6.5-million public golf course to be built on watershed property near Woodside.

Though Woodside officials oppose the plan, San Mateo County has been leading the support for the course and has been asked to turn its files and list of backers over to San Francisco.

San Francisco owns the site and, according to San Mateo County Parks and Recreation Board President Mary Griffin, has a "good working relationship" with the federal agencies involved.

First, the Golden Gate National Rec-

reation Area advisory board must issue a permit because it holds recreation easements on the watershed land.

An environmental impact report must also be prepared and environmentalists satisfied that the course has merit.

Officials have been reviewing a new South County golf course for two decades but had not found the right site.

Agnos indicated in 1988 that the city-owned land could be used.

Woodside residents are concerned that a new course would lead to more development of the area and that the 23,000-acre watershed should remain off-limits to public use.

## NEWS

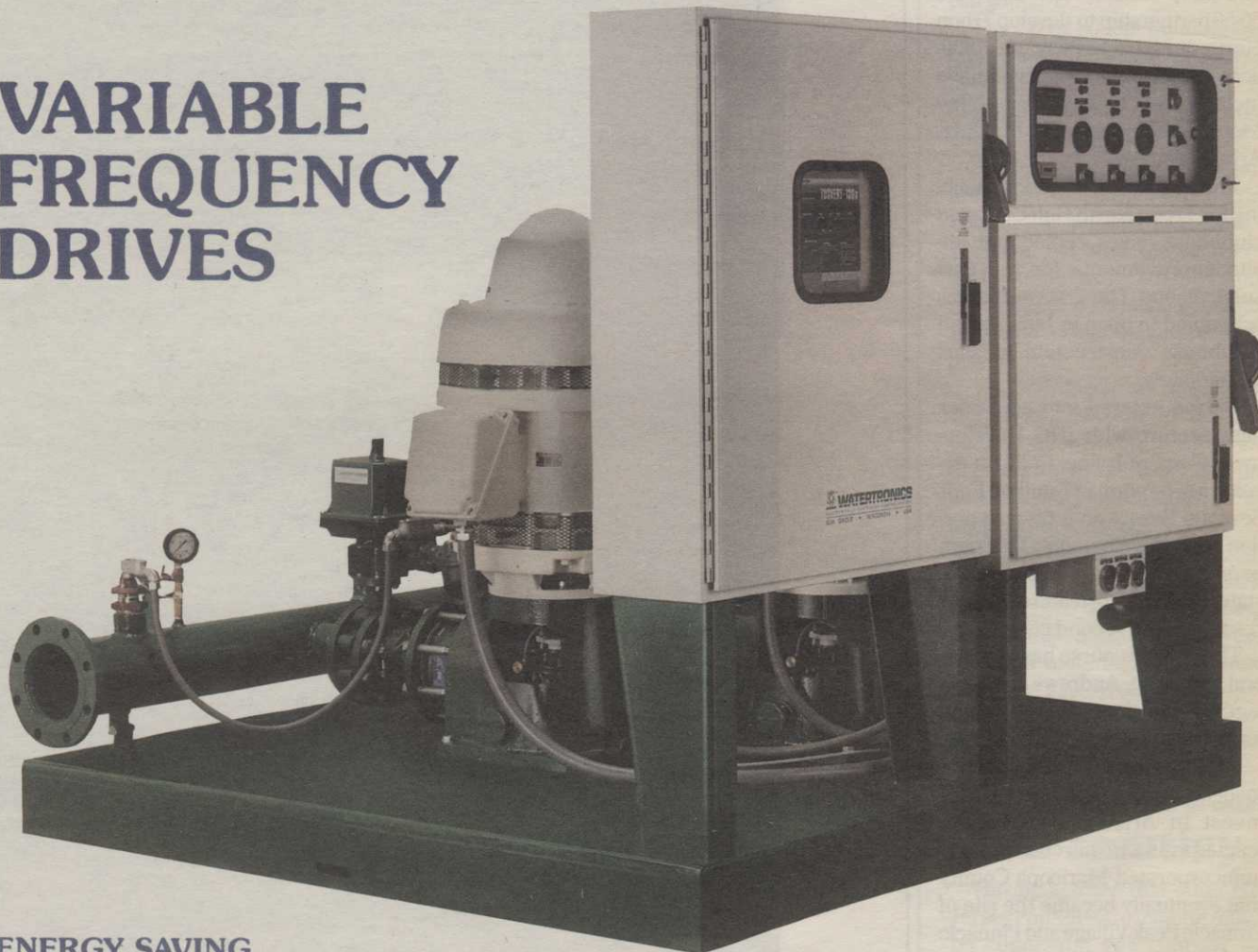
### Landmark inks pact with Buie

Landmark Club Management has signed a long-term agreement with Buie Corp. of San Diego to manage Buie's 18-hole Temeko Country Club in Rancho, Calif.

Landmark will supervise the golf along with the food and beverage operations. This is Landmark Club Management's first management contract that has come entirely outside Landmark Land Co., Inc.

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## Florida town, Public Golf agree on pact

Public Golf Corp. and Palm Beach Gardens, Fla., officials have agreed on a contract for the firm to build and operate an 18-hole golf course.

Richard Orman of Public Golf said construction on the 140-acre site would begin by April and the course could open in about one year, becoming only the second municipal course in the county.

A \$7-million bond issue to build the daily-fee facility will be paid off by golf course reve-

nues. Greens fees for summer golfers are projected at \$13; in the winter they will be about \$21, Orman said.

The City Council, voting unanimously on the agreement, decided to provide golf as part of the city's recreation programs, according to Mayor Mike Martino.

Martino said Public Golf was selected as a partner in the project because it had the property and the ability to do the job.

## Illinois park district OKs bonds for course

Mundelein, Ill., Park and Recreation District officials expect to be operating a \$5-million 18-hole golf course by 1992.

The Park District in December approved purchase of \$5 million in general obligation bonds to be financed over 20 years.

The Park District is buying 179 acres from a developer for \$3.1 million and will use \$1.9 million to build the course.

The land is located in unincorporated Lake County, whose Forest Preserve District land acquisition committee has approved the project. The district had intended

to buy a 330-acre tract to protect two lakes and expand Countryside Golf Course, which it owns and operates, but forest commissioners suspended that plan when Mundelein expressed interest in a part of that land.

Mundelein Park Director Alex Marx said the course will pay for itself despite the \$5-million cost.

Meanwhile, developer Towne received approval from the forest commissioners to build 58 homes around the course. Towne assured officials that future covenants would protect the golf course as open space.

## NEWS

### Japan's Okachu plans Aussie course

Japanese golf course developer Okachu Co. plans to proceed with a golf course resort and residential development in Queensland, Australia.

Okachu has established a wholly owned subsidiary, Rodart Nominees Pty Ltd., on the Gold Coast to manage the development.

## Nelson joins with Nichimen in Ariz. project

Nichimen Trading Co. of Japan and Jerry Nelson have formed a 50-50 partnership to develop Troon North at Pinnacle Peak, an 1,800-acre project that will eventually include two Tom Weiskopf/Jay Moorish courses near Phoenix, Ariz.

The partnership includes financing for Troon North Golf Course, a clubhouse, sales center and off-site improvements for the first subdivisions. The first course was scheduled to open in January and clubhouse construction to start immediately.

Nelson entered into an earlier joint venture with IDG Development Corp. of Irvine, Calif., to develop a 250-room, \$87-million Four Seasons Resort on a 65-acre portion of the development. That partnership has bought 620 acres of state land that will feature another resort and the second course.

The second course has had several names, St. Andrews and Heritage among them, before taking its present designation, Estancia.

Nelson and Nichimen, believed to be the first Japanese firm to invest in Arizona real estate, teamed in 1972 to purchase land in unincorporated Maricopa County that eventually became the site of Pinnacle Peak Village and Pinnacle Peak Country Club.

## Oregon attracts Japanese firm

The first Japanese investment in the central Oregon resort industry will be a \$7-million development encompassing a golf course, 107 home sites and 103 condominiums.

Golf Village, which will be built at the Inn of the Seventh Mountain, west of Bend, is being developed by partners Sho Dozono, president of Azumano Travel Service; Don Schollander, a Lake Oswego real-estate developer; Warren Klug, general manager of the inn; and the Yamazoe family of Tokyo, which bought two Portland office buildings for \$3.6 million last year.

Construction has begun on the golf course, and the first nine holes are expected to be ready for play in the summer of 1991.



## Sportsman's renovation bid accepted

The Northbrook (Ill.) Park District Commission has accepted a \$1.3-million bid to renovate the east nine holes of the Sportsman's Golf Course.

The district plans to install a new irrigation and drainage system and reseed the east nine holes of the 27-hole layout.

Ryan Excavating Co.'s winning bid, which was similar to earlier bids the council originally rejected as too high, was accepted by a 5-1 margin. Work was scheduled to start in January and the holes to be re-opened for play in December.

## USGA awaits targets for research

Saying, "We think we're the environmentalists," USGA Green Section National Director William Bengeyfield says the section in the 1990s is stressing research on the environmental impact of golf courses.

Bengeyfield, claiming many environmental organizations hire "recruits who are emotionally motivated," said in an interview that the Green Section will rely on facts documented by research when evaluating the impact of golf courses.

A research effort is under way to find the results of pesticide applications.

Spectrum Research, Inc. has been hired for \$20,000 to do background research. Bengeyfield said that in late March, Spectrum officials will present their recommendations to the Green Section, outlining the areas that have not been, and ought to be, thoroughly researched in regard to the environment.

He said the Green Section will then seek "very specific" proposals from universities

regarding biodegradation and breakdown of pesticides and other topics.

After reviewing those proposals, the section will present a financial request to the USGA Executive Committee in late summer at the U.S. Amateur Open.

"The Executive Committee will decide if and how much to support this effort then," Bengeyfield said.

Bengeyfield said he hopes to work closely with the Environmental Protection Agency.

## NEWS

### SUNY campus honors Smalley with building

The State University of New York at Cobleskill has dedicated its new Turfgrass Building in honor of plant science Professor Emeritus Ralph Smalley.

Dr. Smalley started SUNY Cobleskill's turfgrass curriculum in 1962 and received the State University Chancellor's Award for Excellence in Teaching in 1981.

A plaque honoring Smalley was unveiled at the dedication ceremony, and a second plaque acknowledges the New York State Turfgrass Association for its financial support.

The 24- by 80-foot building contains classroom space for courses in turfgrass management, recreation and sports-area management and an equipment storage area.

Students under Professor Meredith McNeil began construction on the building in the fall of 1984 and her students each year have continued the carpentry work. The campus's physical plant staff worked overtime to complete the project.

The NYS Turfgrass Association contributed \$26,000 to the total \$35,000 cost of the project and donated an IBM Model 30 computer, printer and monitor to the turfgrass foundation.

A matching funds grant of \$5,500 was given by SUNY Research Foundation, while ChemLawn Corp. donated \$2,500 toward construction materials and Stanford Seed. Co. gave \$700.

### N.J. counties enjoy success, draw scrutiny

Having learned that other New Jersey counties are making money on county-run golf courses, officials in Burlington County are investigating the idea.

The Burlington County Freeholders' interest was sparked by a survey of other New Jersey counties that showed at least three operate public courses at a profit. Morris County has three courses, Mercer two and Ocean one with a second under construction, the survey found.

The Red Lion Golf Association, a group of some 200 Leisure Town residents, believes the county needs more public courses and has pushed for years for a county course.

Until now, county officials have balked at the move, citing limited revenue and escalating land costs.

Freeholder Bradford Smith is asking for a feasibility study and for the county to look into securing state and federal Green Acres funding to buy open space and turn it into a golf course.

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## NEWS

### Deere winners

The winners in the 35-team third annual John Deere Team Championship hailed from the Country Club of Louisiana in Baton Rouge. The January issue reported the winning team was from the Country Club of Indiana.

Team members were Tolby Strahan, Dean Alexander, Luis Romero, Ben Skillman and John Deere golf and turf distributor Howard Ruiz.

## Jones predicts more 'munis,' public courses

A greater mix of new municipal and public-fee courses will be built in the 1990s, says American Society of Golf Course Architects President Robert Trent Jones Jr.

Although the trend of the last five years has been to integrate new courses into real-estate developments and resorts, Jones said, "Upscale public golf definitely is on the rise, and municipalities and entrepreneurs will be working to fill the demand gap in the next 10 years."

Jones said that although the demand for residential and resort courses is being met in many regions, "we must in the next decade

develop more innovative ways to finance the very strong demand for municipal and public-fee courses."

Some communities, such as Brooklyn Park, Minn., have combined efforts with local builders, who have developed housing around new municipal courses, and that trend is expected to continue.

Other public bodies are considering sites — from landfills to retired military posts — that are undesirable for commercial or real-estate development.

Jones feels the public-fee and municipal courses of the 1990s

will be higher quality than in the past.

"We'll be seeing better-designed courses that will feature aesthetics, playability and easy maintenance which will generate revenue for their cities' parks departments," he said. "Golfers see so many great courses on television and play many more while on vacation or attending business meetings, and they want to play comparable courses near their homes. And, they are willing to pay a premium for quality golf."

Jones pointed to the profitability of new, quality golf courses throughout the country, including

areas like the Northeast and Midwest that once were considered "mature" markets.

"With sound management, these new facilities will become solid profit centers for municipalities and private owners. Public golf is one of the great opportunities today in the entire recreational spectrum," he said.

### Major project will take 15-20 years to finish

A golf course along Limestone Creek is part of the largest proposed development in the 101-year history of Orange, Calif.

After nearly four years of negotiations with the Irvine Co., the City Council in December unanimously approved a plan that calls for construction of 12,350 new homes on the east side of town.

Plans also call for a commercial/retail center that will create 27,000 jobs, a recreational complex along Lake Irvine and the golf course. The entire project will take 15 to 20 years to complete.

The proposal could be stalled, however, by the Serrano Irrigation District which is concerned the project could pollute Irvine Lake.

The district, which provides drinking water for some residents of Villa Park and Orange, is considering suing the city for approving the plan without, what it considers, adequate safeguards against polluting the lake.

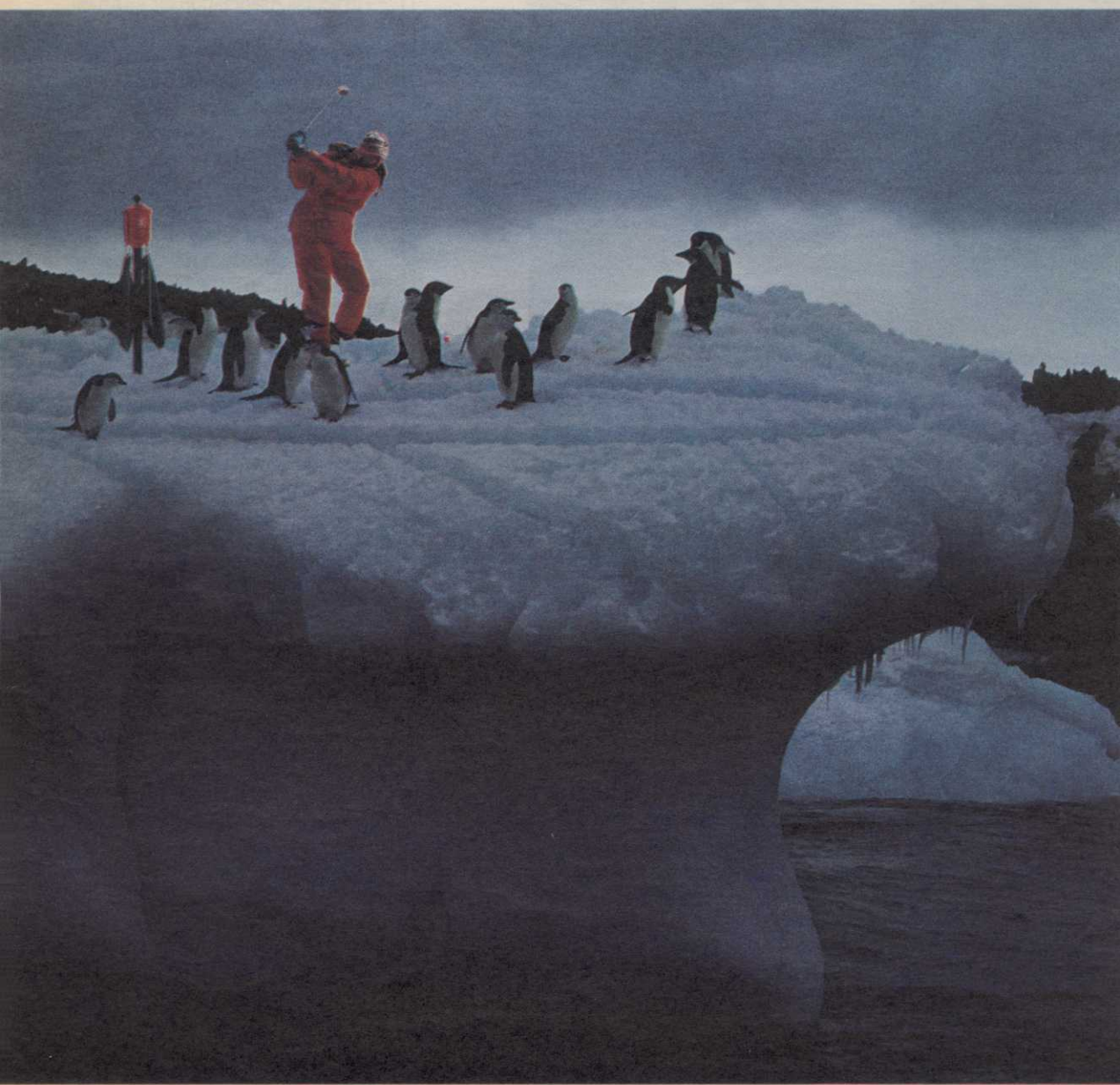
### GCA reports 'ballooning' roll of members

Total Golf Course Association membership ballooned to 306 during 1989, a year of growth for the association for privately owned public golf courses.

That growth was reflected in GCA's management newsletters, ranging in topics from marketing to internal controls, which are now being published 10 times a year. A record-breaking attendance was also expected at January's annual GCA conference in Palm Springs, Calif.

The GCA has participated on national task forces dealing with tax equalization for golf courses and the environment. Panelists representing GCA have appeared at both National Golf Foundation summits and the GCA has a lead role in developing a uniform system of accounting practice for public golf courses.

The association has also benefited from its membership on the National Golf Foundation board, appearances at the Professional Golf Association annual meeting, and past GCA president Peter Trenchard's nomination to the Executive Committee of the United States Golf Association. It also planned exhibits for January's PGA buying show and February's Golf Course Superintendents Association of America annual conference and show.



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

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## Zurich-American unveils course insurance plan

A new player has entered the market selling insurance to golf courses.

Zurich-American Insurance Group of Schaumburg, Ill., has introduced "foreGOLF," which it says is "designed specifically by golf people, for golf people."

Highlights of the property program are comprehensive coverage for the golf course's buildings and contents, specialized coverage for greens and tee boxes, loss of income or extra expense coverage and crime coverage.

Liability features include commercial general liability, liquor coverage, herbicide and pesticide

liability, broad-form property damage and golf car liability.

Optional extensions are inland marine, an extensive excess liability umbrella to provide higher limits, workers compensation, commercial auto, and boiler and machinery.

Zurich-American's policy provides risk management services including safety and engineering programs, plus specialized claims processing.

Z-A is assigning a representative to each account "to identify common golf course hazards and those unique to each course, evaluate individual operations to deter-

mine improve management systems and to conduct safety training seminars."

Chase Golf Course Consultants President David Stefan and Golf Properties Association International officials worked with Z-A to develop "foreGOLF."

The program is being offered in all states except Hawaii and Alaska through the Chase Insurance Agency in Ocean City, N.J., and Exton, Pa.

To qualify, courses must have at least 18 holes, be at least 5,000 yards long and cover at least 100 acres, among other criteria.

More information is available

from Robert R. Rettew at Chase Insurance (800-4-GOLF-44), or Thomas Wagner at Zurich-American (609-596-2090).

## VMS Realty agrees with Xerox on project

Xerox Corp. has found a partner to help it complete the Landsdowne mixed-use project in Leesburg, Va., that includes a golf course.

Xerox announced last June it was abandoning its property development business to concentrate on financial services and office equipment.

That failure worried Loudoun

County officials who feared the project — a golf course, two 300-room hotels, waterfront park and 1,830 residential units — would not be built.

A deal struck between Xerox and VMS Realty of Chicago apparently means the plans will come to fruition.

## Resurrection of course hinges on vote

The Los Alamitos Country Club and golf course may awake from a five-year hibernation if Cypress, Calif., voters approve a new hotel and business complex.

The 18-hole course was closed in 1985 by Hollywood Park Realty, which wanted to put office buildings on the 58 acres as part of an overall 2.7-million-square-foot commercial and office park development. Cypress voters rejected that proposal by a 2-to-1 margin last year.

Lloyd Arnold bought the land from Hollywood Park and has drafted a new proposal that includes renovating and reopening both the golf course and nearby Los Alamitos Race Course as well as building 1.8 million square feet of office and commercial space.

Reopening the golf course and building a new clubhouse is Arnold's first order of business, according to Jack Swank, an opponent of the Hollywood Park proposal but a strong advocate of Arnold's plan.

Traffic and environmental studies for the proposed Cypress Business Park must first be conducted and could be submitted to the city council as early as March.

The plan calls for a change in the zoning ordinance, a move that must be approved by voters. If the council approves the proposal, it could come before voters in June.

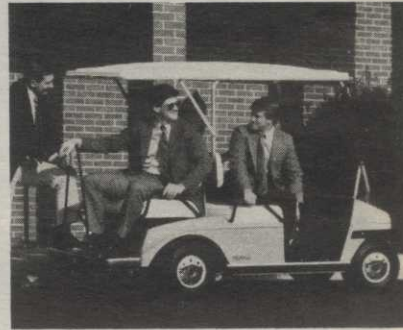
## Developers offer donation in lieu of fees

Developers of a proposed golf course community in Upper Makefield, Pa., have offered a \$1-million donation to the town as an alternative to paying park, recreation and road improvement fees.

The township supervisors have voted to allocate \$825,000 to the Park and Recreation Board, \$75,000 to the Fire Department and \$100,000 to the township if the developers' offer is accepted.

George Michael and Thomas Scannapieco want to build their community on 604 acres in the village. The township has approved the course, although plans for much of the rest of the project had not been submitted as of this winter.

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## NEWS

### McCumber Japan-bound

Mark McCumber & Associates has been commissioned by Random Associates to design Japanese golf course projects in Hiroshima and Utsunomiya.

Construction at Hiroshima is expected to begin this year. Negotiations for the purchase of additional land is underway at Utsunomiya, where preliminary plans should be completed by this fall.

### Palatine faces five-year remodeling

Approximately \$2 million in improvements appear in the Palatine, Ill., master plan for the Palatine Hills Golf Course.

The 18-hole, Edward Lawrence Packard-designed course is in line for a dozen cosmetic improvements over the next five years. Some have already been completed or are un-

der way.

A fourth irrigation well was added last summer. Sewer and water hook-up to the village is taking place. Two rain-shade shelters have been approved and should be ready when the course opens in April. The Killian Design Group has designed a layout for a 20 tee-off box driving range.

Another \$1 million has been proposed for a computerized irrigation system and improved landscaping. Additional trees and shrubs have also been mentioned.

A recommendation for a timetable for improvements was scheduled to be submitted to the park board in January.

### \$6.8 million in changes ahead at Schaumburg

The Schaumburg, Ill., Park District is planning \$6.8 million in renovations to a course it bought last year.

The Park District agreed to pay \$15.5 million for the former Golden Acres golf course a year ago. It is

now considering a three-phase facelift to the renamed Schaumburg Country Club that will make the 27-hole facility more playable.

The first phase calls for creation of a driving range, doubling the parking lot from 180 to 350 spaces

and constructing a new maintenance building. The combined cost is estimated at \$3.4 million.

Subsequent improvements include green and tee expansions of the second nine holes, a new clubhouse and more second nine holes.

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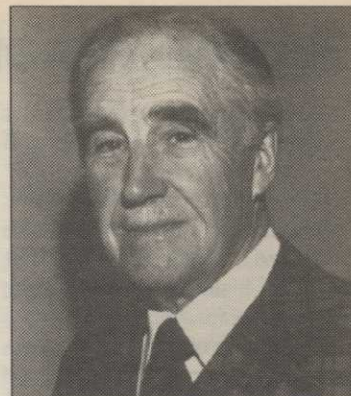
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Robbie Robinson

### Architect Robinson dead at 82

C.E. "Robbie" Robinson, credited with designing some of the most outstanding golf courses in Canada, died Dec. 29 at the age of 82.

The president of the American Society of Golf Course Architects in 1961-62 and 1971-72, Robinson entered practice as an architect in 1948 and founded C.E. Robinson & Associates, Ltd., in 1961.

He had become interested in course design during his undergraduate years when he updated and renovated the Fenelon Falls, Ontario, course of Canadian statesman and magnate Sir Joseph Flavelle.

After graduating in 1929 from University of Toronto's Agricultural College in Guelph, Ontario, he served an apprenticeship with famed Canadian golf architect Stanley Thompson, who arranged a position for Robinson as course manager and superintendent at Sunningdale Country Club in London, Ontario.

Robinson returned to Thompson's firm in 1936, then served with the Royal Canadian Air Force during World War II before moving on to a job in site selection and housing development with the Canadian government and later opening his business.

He further studied soil science and agronomy at Cornell University and turf management at the University of Massachusetts, and became recognized as an expert on turfgrass culture.

Robinson served several years as director of the Royal Canadian Golf Association's Green Section.

He designed Upper Canada Village Golf Club in Morrisburg, Ontario; Brudenell Golf Club on Prince Edward Island; John Blumberg Winnipeg Municipal Course in Winnipeg; Cape Breton Golf Club in Nova Scotia; Hamilton Golf & Country Club in Ancaster, Ontario, and other courses in the United States, Mexico, the Caribbean and South America.

He remodeled St. George's Golf and Country Club near Toronto and Cherry Hill Golf and Country Club in Ridgeway, Ontario, for the 1968 and 1972 Canadian Opens, respectively.

Survivors include his wife, Thelma, of Paris, Ontario; one brother and three sisters.

Donations may be made to the Canadian Cancer Society.



# First golf outplacement firm formed

## Five ex-CMMA presidents join forces, talents in new venture

BY MARK LESLIE

Outplacement, an industry in its infancy, has reached the world of golf.

Six former presidents of the Club Managers Association of America, led by Immediate Past President Edward L. Hoffman, have formed Club Professional Outplacement, Inc., and this month opened six offices across the United States. Outplacement is a process by which a company helps employees find new jobs.

"We formed this company initially with the thought of performing a service that was needed and to improve the lot of all club professionals, be they club managers, grounds superintendents, or golf professionals," said Hoffman from his Chicago, Ill., headquarters. "Outplacement is fairly new to industry in general but has been unheard of in our field. There is no one in the (280) existing outplacement companies who really understands club managers and golf professionals."

Hoffman points to his own experience along with the 40 years each accumulated by his partners in the company:

- W.R. "Red" Steger, a former grounds superintendent and golf pro as well as club manager, is vice president and regional manager working out of Houston, Texas.
- James Goslin, who has an accounting background, is secretary-treasurer and manager for the Northeast working from his Warwick, R.I., offices.
- Josef Auerbach, who is retiring within the next year, is a regional vice president and manager for the region around his Wichita, Kansas, office.
- Richard Maynes, who is retired, is regional vice president and regional manager working out of a Sacramento, Calif., office.
- Horace Duncan, a former executive director of CMAA, is regional vice president and Southeast region manager from Highlands, N.C., headquarters. He has been retired for four years and has been conducting retirement seminars, so will be the company's resident retirement expert.

"We have a very diversified group," Hoffman said. "We have all been in the field 40 years and have all managed or been general managers of clubs, so we are intimately familiar with golf professionals as well as grounds superintendents and tennis professionals."

Over and above the normal outplacement service, the new firm will offer "professional staff retention," helping long-time professional employees deal with and implement new club policies in response to changing ideas and demographics.

"We feel that we can help by being engaged by the club to work with that individual because we've been there and we speak their language and can convey what that club really wants," Hoffman said.

"We will stay very high on ethics, will work with these people, will take displaced or terminated people and evaluate them with scientific testing; do psychological evaluations and help them with their career paths; how to interview; practice interviews with videocameras; help them rewrite their resumes; network and tell them where the jobs are and where they ought to apply; and then we'll help

them determine which job they should or shouldn't accept, maybe even influence their contract negotiation if they want us to.

"We're going to do spousal counseling for the displaced individual if they want. We'll also provide retirement counseling."

"We (partners) all want to be a service," Hoffman said. "It's been a great profession. We've made our living out of it for a long time. We love the industry so we thought we'd give something back and maybe make a little money. And right now it looks as though this really could balloon into something."

Pointing out that his wife, son and brother are all club managers and that Goslin and Auerbach have sons who are club managers, Hoffman said: "It is a labor of love for us. We're excited about it, enthusiastic... It is an exciting concept."

Club Professional Outplacement Inc. has asked for an endorsement from the CMAA and will approach other groups. CMAA has endorsed the concept for several years but "there never was a firm that they could endorse," Hoffman said.

Explaining why not one of the 280 outplacement companies have targeted clubs, Hoffman said:

## NEWS

"There's no one really capable. They don't understand the nuances of the industry. But we as general managers have had dealings with and have hired golf professionals and grounds and tennis professionals. We understand them and we understand where the club boards are coming from as well. So that makes us, I believe, certainly the only qualified firm to do it."

"We're young enough to work at it and old enough to have the necessary experience."



Even the nicest-looking course can suffer ugly problems beneath the surface

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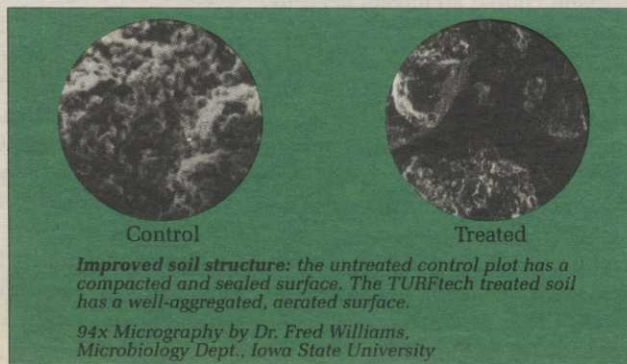
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That's why over a thousand superintendents have added TURFtech to their turfgrass program. As Dan Pierson of Denver's Cherry Hills C. C. says, "As another tool used to supplement sound and aggressive cultural practices, I have noted significant added vitality in areas that previously responded little to varied attempts at improvement."

This patented product is available exclusively from Soil Technologies Corp., America's leader in biological soil management.

For a fact-filled brochure on TURFtech research and application, call Steve Nichols at (800) 221-7645. For free information circle #107



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Visit Us at Booth 3235 at the GCSAA Show in Orlando, February 23-26, 1990



# Fulfilling a promise, with thanks to all

It was just a year ago that I first had the opportunity to write this column. At that time I outlined what *Golf Course News* would offer during the coming months. Included with these plans was a promise to deliver a news publication with an easy-reading format and stories related to the golf course industry that would help you do your job better.

In my opinion, our managing editor, Mark Leslie, and staff have accomplished this task as promised. In doing so, *Golf Course News* has established a strong following from readers, industry suppliers and (thankfully) advertising clients. Advertising supports this

publication, and we thank each one of our fine advertisers for their business, past and future.

A year ago, 5,000 copies of our premier issue were printed and most of them distributed at the Golf Course Superintendents Association of America conference and show in Anaheim. We "gave away" some 40 pages of advertising in that issue.

One year later, this issue will go to 20,000 qualified recipients, plus an additional 5,000 distribution at this year's GCSAA show. There are 75 advertising pages in this issue — all of them paid for by advertising clients. The 20,000 controlled distribution will be au-

ditioned by Business Publications Audit (BPA) to assure our advertisers of the quality circulation that we have stated from the first issue that was mailed.

This year's GCSAA show is bigger and better than ever. We salute this fine organization and its membership for putting on the conference and show for the golf course industry.

The GCSAA has been most cooperative in supplying *Golf Course News* with exhibit information so that we can help you during the show weekend. In the middle of this issue (pages 35-38) we've printed a "pull-out" section which we suggest you pull out and take

with you as a guide around the exhibit hall. *Golf Course News* advertising clients are highlighted in the listing and on the floor plan for your convenience. We're in booth 5801 and we'd like to meet you and hear your comments on *Golf Course News*. Please stop by to say hello.

*Golf Course News* has had a most successful first year thanks to the support of our readers and advertisers. We look forward to serving the industry for many years to come.

See you in Orlando.

Sincerely,  
Charles E. von Brecht  
Publisher

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## COMMENT

### For Sale: Prime land; includes wetlands

BY BOB LOHMANN

In the not-too-distant past, many golf course architects looked on wetlands as a nuisance — mosquito-breeding, swampy, low-lying areas that would be scheduled for dirt fill.



Bob Lohmann

Today, wetlands and golf course construction have established a much different relationship. First, the land available for new courses is many times unsuited for farming or housing, and a major reason is that the site is partially wetlands.

Second, architects now realize the environmental importance of wetlands. They help control flooding and reduce erosion. Also, a multitude of unique wildlife and vegetation is dependent on this swampy land. In nature's delicate balancing act, wetlands play a very important supporting role.

When you consider the staggering amount of wetland acreage that has been destroyed over the years — in Illinois, for example, more than 95 percent of the wetlands are gone — it is little wonder wetlands and the wetland environment are now protected under the Clean Water Act of 1977.

Golf course architects need to learn to work with wetland acreage, and to create new and better courses that are in harmony with nature.

A new site that includes wetlands not only offers unique design possibilities, but another element from which to create a memorable golf course.

One challenge in building on a wetland site is that wetland acreage cannot be reduced. For every

inch of wetland altered or "taken away," an equal area of wetland must be created. This process of wetland recovery is called mitigation.

Defining wetlands can also be a challenge. Any number of definitions are being applied, and some developers simply pick the one that suits their immediate needs.

But since the Army Corps of Engineers is the government agency in charge of verifying and protecting wetlands, architects and developers should follow the Corps' definition of a wetland: "Those areas that are inundated or saturated by surface or ground water at a frequent rate and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions."

Therefore, to ensure builders don't destroy wetlands during construction, architects should always request a site analysis by the Army Corps of Engineers. With the Corps' assistance, they can verify and outline the protected wetland acreage.

Once the wetland areas have been identified, the key is to make them part of the course's character — to build a solid, fun-to-play golf course, and use the wetlands to enhance the beauty, definition and character of the individual holes.

We've faced this wetlands challenge on a number of golf courses that we've designed and built. The design of one wetland course, however, stands out: Oak Knoll Golf Course in Streamwood, Ill.

Oak Knoll is part of a residential development and borders the perimeter of the complex. The course covers a significant area of land unsuitable for homes and condo-

Continued on page 58

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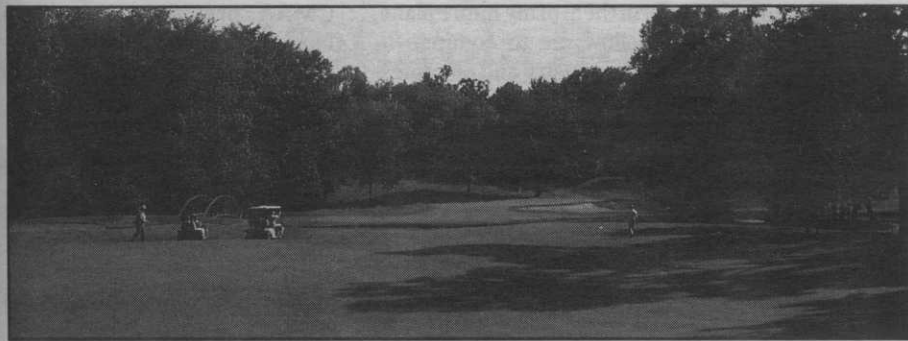
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# Effect of root stress on turf vigor

From Maryland, south to Florida and west to Texas, six of the nation's top turfgrass specialists investigate the importance of a root system to golf turf and the effects certain preemergence herbicides can have on its health.



On the surface, rolling fairways and well-manicured greens can appear undaunted by stress conditions, such as the drought that hit portions of our nation in 1988 and again in 1989. But hidden from view, the turf's life-sustaining root system may be struggling for survival.

Dr. James Beard, Professor of Turfgrass Science at Texas A&M University, says that because roots are oftentimes more sensitive than shoots, turf damage from environmental stresses may be present even when above-ground effects are not evident.

Over 1,000 miles away at Virginia Polytechnic Institute and State University, Dr. David Chalmers, Associate Professor of Agronomy, concurs. "Too often, turf management is geared exclusively towards producing a green top. The root system lends support to the production of this green top and, if functioning improperly, can inhibit the formation of a healthy, agronomically sound turf and/or turf that provides optimum playability for golf and other sports."

Dr. David Chalmers, Associate Professor of Agronomy at Virginia Polytechnic Institute and State University, speaks at the Annual Virginia Tech Turfgrass Field Days. Each year, this three-day-long event attracts hundreds of industry representatives wanting to hear the latest in turfgrass research.



The root system is vital in water and nutrient uptake. A healthy root system reduces the quantity and frequency of water applications needed for survival. On the other hand, a poor root system decreases a plant's overall vigor, which according to Beard, initiates a whole gamut of negative reactions.

"A short root system increases the prudence of the plant to water stress even when there's adequate moisture in the soil," he says. "The plant could die due to water stress because of the root system's inability to take up the water as rapidly as it's being lost by evaporation from the leaves."

The factors affecting the health of the root system are varied. For turf with minimal root systems, such as newly established turf or turf that has undergone environmental stresses, certain preemergence materials can predispose the root system to injury. During a recent study, Dr. Bill Lewis, Professor of Crop Science - Weed Control, was able to link poorly developed roots with the application of certain preemergence herbicides.

Used in the test were some of the most common materials available today, including benefin (Balan® 2.5G), bensulide (Betasan® 7G), oryzalin (Surflan® 4 AS), oxadiazon (CHIPCO® RONSAR® 2G brand herbicide), pendimethalin (Pre-M® 60DG) and prodiamine (Blockade® 65DG, now known as Sentinel®). These materials were applied overtop of newly transplanted sod of four different turfgrasses - common centi-

pede grass, a KY-31 tall fescue/Kenblue Kentucky bluegrass polystand, Meyer zoysia-grass and Tifway bermudagrass.

"With all four turfgrasses, the herbicide having the least effect on rooting was oxadiazon, while the most severe was oryzalin," Lewis concluded.

The herbicides' mode of action may account for the varying degrees of root pruning in the test. With the exceptions of oxadiazon and bensulide, the other herbicides are classified as dinitroanilines, a class of chemicals that stop seedling growth by inhibiting cell division.

Dr. Wayne Bingham, Professor of Plant Physiology - Weed Science, at Virginia Polytechnic Institute and State University, explains further how these herbicides work: "The dinitroanilines interfere with normal cell mitosis and prevent two potentially good cells from forming properly. Instead of dividing, the cell grows larger and becomes rounded, not cylindrical. In bermudagrass, for example, this disorientation results in the formation of stubby roots, which will not tack down properly, but will pull right up."

"Oxadiazon, on the other hand, is not so mobile in the plant," Bingham continues. "It usually does not go into the root tip, but is taken up by the stem or leaf blade. This material stops the development of the annual grass seedling during germination."

Bob Rehberg, Director of Research and Development, at Estech Corporation in Winter Haven, Florida, also has seen severe root-pruning problems with many of the dinitroanilines. "The situation we have in Florida is unique," he says. "Our high infestations of nematodes weaken the root systems of the turfgrasses. Compounding this problem are our sandy soils, which do not buffer the root system against the effects of herbicides as well as clay soils do."

"When you apply these compounds, you're actually bathing the root system with a root-pruning herbicide. The roots cannot peg down through this herbicide layer in the soil, so the rhizomes just grow across the surface with abbreviated roots that look like upside-down mushrooms. I haven't seen any of these problems with oxadiazon."

With preemergence herbicides that may weaken sensitive turf, many factors and conditions affect the degree of root-pruning severity. The time between seeding and application is one critical factor. Lewis notes that if you seed in the fall and apply herbicides in the spring, some preemergence materials tend to thin the stand. "For example, with tall fescue, all preemergence herbicide labels, except Betasan® (bensulide), Dacthal® (DCPA) and RONSAR® (oxadiazon), do not recommend spring applications following a fall seeding," he says.

A test that measured the effects of five preemergence materials - prodiamine, oxadiazon, pendimethalin, oryzalin and a mixture of benefin and trifluralin (Team® 2G) - on fall-seeded tall fescue verifies his claim.

"Only plots treated with oxadiazon had root strength equivalent to untreated turfs at both 49 and 149 days after treatment," he says.

Root-pruning herbicides used under less-than-optimum circumstances certainly are not the sole culprits of poor cover and delayed rooting. Other factors that can increase the potential for root pruning include soil compaction in heavily trafficked areas, moisture imbalances, excessively close mowing, acidic soil conditions, pest infestations, excessive nitrogen fertilization, potassium deficiencies and disease. These variables, which collectively share the blame for a weakened root system, also may interface with one another and intensify their damaging effects on turf.

For example, in a study that measured the effects of preemergence herbicides on cover and rooting, Dr. Peter Dernoeden, Associate Professor in the Department of Agronomy at the University of Maryland, found that a mature stand of perennial ryegrass treated with pendimethalin exhibited an unacceptable level of leaf spot injury. Visual evidence included browning and thinning.

"These results seem to indicate that pendimethalin can predispose turf to leaf spot disease," he says. "However, I have no evidence that other preemergence herbicides enhance the development of this disease."



Dr. Peter Dernoeden, Associate Professor of Agronomy at the University of Maryland, checks on the progress of a preemergence herbicide trial at the University's Turfgrass Research and Education Facility.

The cumulative effect of applying a preemergence material to turf weakened by drought is particularly significant to golf course superintendents in areas affected by dry weather. Depending on temperatures and amounts of moisture during the preceding winter, Bingham warns that summertime droughts may adversely affect the health of the root system as it goes into spring greenup the following year. "Anytime we have less than adequate moisture, we weaken the turf going into the winter and leave it open."

During dry periods, the turf's biomass, which serves as an insulating layer, is decreased. Beard warns, "If drought stress causes a loss of biomass and a very minimal replacement occurs in the fall, the turf will not have the insulating protection it needs during the overwintering period."

Drought also deters the normal level of green leaf tissue formation. This tissue synthesizes and accumulates carbohydrates, which, according to Beard, is a key contributor to low-temperature hardness. If a turf emerges from winter dormancy in a weakened state, a root-pruning herbicide has a greater potential to inhibit growth.

Even with these problems, all of the researchers agree that in areas with serious annual grass problems, turf is established much quicker following a preemergence herbicide application than when left untreated.

Bingham says, "Our research consistently proves that the survival rate of bermudagrass throughout the year is much better when preemergence materials are applied than if we allow the annual grasses to compete."

One of the worst annual grasses in the bermudagrass territory is goosegrass. "The peak germination period for goosegrass is about the time when bermudagrass reaches its optimum establishment period," Bingham continues. "If moisture is present, the goosegrass plants are in an optimum situation to compete, especially on fairways where the grass is mowed a little shorter than normal."

"The best overall treatment for goosegrass is oxadiazon," he says. "It also has the least effect on the root system. The dinitroanilines provide a good amount of

goosegrass control, but they also give a high amount of root inhibition. DCPA is less of an inhibitor, but it isn't as effective on the goosegrass."

While postemergence herbicide treatments control goosegrass, they may delay and reduce the rate of cover even more than those preemergence materials that can inhibit growth. For example, Bingham notes that metribuzin, a photosynthesis inhibitor, applied in the spring, not only retards the growth of the goosegrass, but the emerging turf as well. This is particularly evident during bermudagrass establishment from sprigs.

With all herbicides, proper application is critical. Chalmers says, "When using any potentially phytotoxic material, efficient calibration and application are extremely important. Most herbicides have a margin of tolerance. The recommended rates per acre are there for a reason."

For granular herbicides on fine turf, Chalmers recommends using a drop-type, gravity-fed spreader as opposed to a cyclone-type spreader, to avoid excessive overlap of the material between application paths.

All of the researchers stress that effective weed control is just one part of a collaborative process that affects the quality of turf. Employing other good management and cultural practices is needed as well.

"Golf course superintendents have certain standards to maintain," Dernoeden says. "My advice in maintaining the healthiest turf possible is to control the pests, keep up with the fungicide treatments as needed and maintain the height of the turf as high as the membership will allow."

To relieve the pressure of a shallow root system intensified by drought stresses and compact soil, Lewis recommends aerifying the fairway or green to help get deeper root penetration.

Establishing an acceptable pH level within the 6 to 6.5 range, maintaining a good turf cover to modify soil temperatures, and supplying the turf with adequate amounts of nutrients at the proper time also are key, Chalmers adds.

As the season for weed control draws near, Bingham advises, "Know the state of your turf and select a preemergence material that will provide safe control."

Beard concludes, "Depending on the particular problem and conditions, a herbicide is an important option in a cultural program. The main point to make is that a herbicide should be used judiciously, targeted for a particular problem that's been identified, rather than routine fence-to-fence applications made annually without any judgment as to need."

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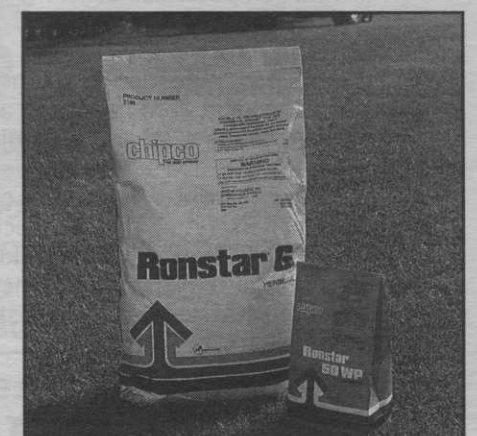
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# LETTERS

## Too much of wrong fertilizers used

To the Editor:

I read your article (commentary by Fertilizer Institute President Gary D. Myers defending use of artificial fertilizers) in the December issue of *Golf Course News*.

Your article, I think, is very good; however, you did not go far enough on the pollution of the streams. The salt that every winter is put on the highways, let me ask, where does this finally land? — the stream, no more fresh-water fish.

I agree the farmers and the golf courses are using too much of the wrong kind of fertilizers.

I have been general manager for 25 years at Hominy Hill Farms and Homily Hill Golf Course.

In these years I have made a complete study of the soil at Hominy Hill.

With the technique I found and followed, I raised better alfalfa, kept a good stand for 11 years before reseeding, and grew the best hay

in the world.

One year I exhibited seven different hay samples in a show that had over 600 hay samples; I won five first places and two seconds, for Grand Champion and Reserved Champion.

On the golf course the last 10 years I was there, I developed a method of fertilization, etc. that grew the nicest, healthiest grass.

With these methods I save a great deal of money in spending for unwanted fertilizer.

Some of these methods would apply to the farmer and to the golf course superintendent.

Sincerely,  
Harvey C. Dreibelbis  
Freehold, N.J.

## Ed Hoffman healthy and active

To the Editor:

Unfortunately, the press release issued by CMAA (Club Managers Association of America) understandably created the wrong impression as evidenced by the story in your December 1989 issue headlined: "Ill health forces Hoffman to resign."

I am writing to clarify the situation so that you and your readers know I am alive and well as well as to inform them of my future plans, which allow me to continue to serve our industry and all professionals serving clubs.

I was forced to retire from active club management due to arthritis which hampers my mobil-

ity to some degree. This caused a change of CMAA membership from active to retired status, which precluded my continuance as president of CMAA.

I shall remain as chairman of Conference '90 and will remain active in association activities.

In concert with Josep Auerbach, Horace Duncan, James Goslin, Richard Maynes and W.R. "Red" Steger, all of whom are former CMAA presidents, we have founded Club Professional Outplacement, Inc. (Editor's note: See story on page 9.)

Our organization will serve club professionals nationwide through offices in California, Illinois, Kansas, North Carolina, Rhode Island and Texas and is the only outplacement service for club professionals exclusively. We sincerely feel this concept will benefit our industry and the dedicated professionals who serve it.

Sincerely,  
Edward L. Hoffman, CCM  
Club Professional Outplacement  
P.O. Box 31135  
Chicago, Ill.

## Informative, well paced

To the Editor:

I would like to compliment you on a great job servicing the golf course design and construction business with *Golf Course News*. Your articles are highly informative, well paced and objective.

As the principal of Richard and Associates, I have recently expressed my confidence in *Golf Course News* by becoming an active commercial advertiser.

Richard and Associates is a full-service golf course project consulting firm.

Sincerely,  
Ray Richard  
Richjard and Associates,  
Sagamore Beach, Mass.

## Moratorium in Illinois town

A moratorium on building permits in an area known as the river bottom has stopped construction of a driving range and a golf course in the Illinois city of Columbia.

The city council imposed the ban in December while awaiting a report on how the industrially zoned land should be used. That report is expected in April.

Meanwhile, work on the Jefferson Barracks Golf Tee and Recreation Center as well as a local golf course being built by investors Charles Dodd and Jim Watkins, has ground to a halt.

A stop-work order was issued to the driving range, which had a building permit. The developers have filed a suit in Munroe County Circuit Court to have it lifted.

No stop-work order was necessary for the golf course, which had not been granted a permit. However, some work had been done on the project because, Watkins claims, the building inspector told him there would be no problem getting a permit.



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## Klauk superlative tutor to supers of the future

BY PETER BLAIS

Unlike many superintendents who claim they rarely play the game, Fred Klauk is a two-handicapper who brings his skills as a golfer to his work.

"I spend as much time as possible trying to teach my assistants how to care for a course from a golfer's point of view. I want them to know why we do the things we do. I've trained several people who are on golf courses of their own right now. I take a lot of pride in that," said the head superintendent at the Tournament Players Course at Sawgrass, Fla., the flagship course of the TPC fleet.

It was Klauk's ability as a teacher that impressed T.P. "Buck" Caldwell, special accounts manager with turf care products manufacturer Lesco, Inc., and led him to recommend Klauk as a candidate for the Super Focus feature.

"Fred has a real gift for nurturing and helping his employees learn the profession, just ask any of his assistants," wrote Caldwell. "They will quickly share that when Fred sends them out on the course, they know what to do, why they are doing it and how. Fred takes time from a very demanding schedule to share knowledge so that his

*Continued on page 59*

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## NEW COURSES

### Royal Lakes offers water and forest

Royal Lakes Golf and Country Club, the centerpiece of a 500-acre development 40 minutes north of Atlanta, Ga., will challenge every level of player when it opens this spring, according to architect Arthur Davis.

"I believe in challenging golf for all player levels and Royal Lakes will provide the golfer variety, challenge and excitement on each hole," Davis said.

A championship par 72 layout,

Royal Lakes covers 6,712 yards over terrain covered with oak and pines and spotted with three lakes.

Undulating greens and large tee areas are a feature of the course which is heavily guarded by sand bunkers and water.

Play will be both private and public. It is a joint venture between Royal Lakes Associates, Norton-Mercer Development and The Norton Agency Real Estate.

## Impact, balance, strategy.

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The 12th hole displays part of a magnificent piece of land Curtis Strange and Douglas Carrick worked with to create King Valley Golf and Country Club in King City, Ontario.

### Strange, Carrick collaborate

Curtis Strange's first design collaboration project in North America — King Valley Golf and Country Club in King City, Ontario — is nearing completion.

Strange was involved as a design advisor with the architectural firm of Robinson & Carrick Associates, Ltd. of Willowdale, Ont.

The firm's Douglas Carrick is

the architect of the 18-hole, private course which is scheduled to open in July.

King Valley will measure 6,891 yards from the championship tees. It is styled in the tradition of the classic courses of the 1920s and 1930s.

Greens range from 5,500 to 6,000 square feet. Bunkers are relatively

deep and hollowed in most cases. Water comes into play on seven holes.

Strange may collaborate again with Robinson & Carrick on a project at Qualicum Beach on Vancouver Island, British Columbia.

Another Carrick-designed course, Grey Stones Golf & C.C. in Milton, Ont., should open in July.

### Schmidt emphasizing shot values

Landmark Club Management has signed an agreement with Davidson Communities of San Diego, Calif. to design and build an 18-hole public golf facility in Ramona, Calif.

Vice President of Landmark Golf Course Design Lee Schmidt, who worked for Pete Dye before joining Landmark in 1979, will oversee the project. Schmidt was involved

with Dye on such courses as Casa de Campo in the Dominican Republic and Kingsmill at Williamsburg, Va., site of the Anheuser-Busch Classic.

"There will be an emphasis on shot values and strategy for all levels of play," said Schmidt of the new facility. "We stress mental play in designing golf holes — that is, we make distinctive holes that

golfers will enjoy and remember."

This is the third Landmark Signature Course, but the first outside Landmark Land Co., Inc. developments.

Two signature courses are currently under way for Landmark-owned properties at Oak Valley near Redlands, Calif. and Oak Harbor Yacht and Country Club near New Orleans, La.

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## Courses newly planned in U.S.

Location	Course Name	Type	Holes	Address	Architect/Contact
<b>Alabama</b>					
Birmingham	Greystone Golf Club	P	18	Hugh Daniel Dr.	Bob Cupp/Hubert Green
<b>California</b>					
Coscan	Menifee Ranch	N/A	18	N/A	Musser & Cox
Modesto	N/A	D	18	Lincoln Ave.	Norrine Coyle (City clerk)
Palm Springs	Palm Springs Classic	N/A	18	N/A	Harry Kanter
Ramona	N/A	D	18	N/A	Lee Schmidt
San Jose	N/A	N/A	18	N/A	Hale Irwin
Stockton	N/A	N/A	18	N/A	Robert Trent Jones, Jr
<b>Colorado</b>					
Aurora	Barrington CC and Estates	P	18	Rts. 43, 82 and 306	Jack Nicklaus
<b>Florida</b>					
Palm Beach Gardens	N/A	N/A	18	Lake Park Rd. West	Richard Orman
<b>Illinois</b>					
Springfield	Panther Creek CC	P	27	N/A	Hale Irwin
West Chicago	N/A	D	18	DuPage Airport	Thomas Fawell
<b>Massachusetts</b>					
Hanson	N/A	P	18	N/A	Richard & Assoc.
Plymouth	N/A	D	18	Little Sandy Pond Rd.	Richard Ridder
Georgetown	The Georgetown Club	P	18	Rt. 133	Phil Wogan
<b>North Carolina</b>					
Edenton	Blackrock	N/A	18	N/A	Hale Irwin
<b>Ohio</b>					
Cincinnati	N/A	N/A	18	N/A	Arthur Hills
<b>Pennsylvania</b>					
Beaver	Seven Oaks CC	P	9	Lisbon Rd.	X.G. Hassenplug
Limerick	Waltz Farms, Inc.	D	18	Route 422	X.G. Hassenplug
Port Clinton	Erie Islands Resort & Marina	P	18	4495 W. Darr-Hopfinger Rd.	X.G. Hassenplug
<b>South Carolina</b>					
Aiken	Cedar Creek	Semi-P	N/A	N/A	Arthur Hills
Charleston	Dunes West	P	N/A	N/A	Arthur Hills
<b>Utah</b>					
Clearfield/Syracuse	N/A	N/A	18	N/A	Tony Versteeg
<b>Virginia</b>					
Manassas Park	N/A	D	18	Union Mill Park	Varden Dyer
<b>Washington</b>					
Yakima	N/A	N/A	9	N/A	Buck Buchsieb

\* — Type: P (Private); D (Daily Fee); Semi-P (Semi-Private)

From Golf Course News sources

## Hills works on PGA Tour

Arthur Hills and Associates has added nine holes to a pair of courses that will be featured on this year's PGA Senior Tour.

The Hermitage, home of the Crestar Classic each fall in Richmond, Va., will open its new nine this spring, bringing the club to a full 36 holes.

Pelican Bay in Naples, Fla., site of February's Aetna Challenge, will expand to 27 holes with the new nine opening this fall. There will also be a large, new practice area.

Nine holes have already been added and another nine are planned at Alcoa Properties of South Carolina's Morgan River Facility at Dataw Island, which will bring that facility to 36.

Three new courses are nearing completion in Florida. Ironhorse in West Palm Beach is being developed by Alan Sher in association with Joshua Muss and Associates. Old Trail at Jonathan's Landing in Jupiter will add a second course to that Alcoa Properties complex. And Windsor Parke, developed by Group IV Properties, is a daily-fee facility on the south side of Jacksonville.

The first of two courses awarded by Fuji Development at Windward Hills in Alpharetta, Ga. (just north of Atlanta) is well into the construction phase. The second 18 is on the drawing board.

Hills is also designing 18-hole Palmetto Headlands on Hilton Head Island, S.C., for Greenwood Development Corp.

Two other South Carolina projects on the drawing board are Dunes West in Charleston and Cedar Creek in Aiken.

## Please let us know

Each month *Golf Course News* publishes news stories on new courses being built across the country.

In cooperation with the American Society of Golf Course Architects, we are asking people who are planning or have begun construction on courses, or are remodeling or expanding existing ones, to write to:

*Golf Course News*, P.O. Box 997, Yarmouth, ME 04096. Please include architect, course builder, project developer, type of course, number of holes and other pertinent or unique information.

## Johnston's Hope Plantation course opens

Construction has been completed and the Hope Plantation Golf and Country Club course on John's Island, 20 miles south of Charleston, S.C., is open for play.

Architect Clyde Johnston, formerly with Willard Byrd and Associates, designed the 6,843-yard, par 72 layout.

The Charleston area's newest golf course is the focal point of 360-acre Hope Plantation, a private residential community located within two miles of the Kiawah and Seabrook Island resorts.

Reports are that although the last planting was Aug. 7, the course is already mat-

ured.

Machen Construction of Little Rock, Ark., was in charge of course construction.

Single-family homesites feature views of the golf course, marshland and Haulover Creek, which is the backdrop for the dramatic finishing holes of the golf course.

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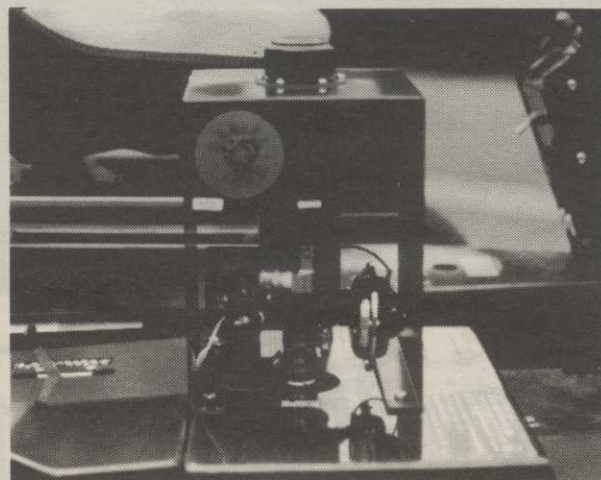
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## GOVERNMENT UPDATE

### Moratorium ends, but future in doubt

A number of developers eagerly hailed in the New Year since Honolulu's moratorium on golf course development expired on New Year's Eve.

But an extension of the moratorium is being considered as the City Council tries to determine the best method for reviewing golf course development applications.

Having been put on hold since the moratorium was enacted last March, 12 to 15 golf course developers reportedly had applications pending and another 40 had made preliminary inquiries.

A bill was been presented to the City Council that would impose a stricter review process. But critics, including the citizens group Hands Around Oahu, say even that is not strict enough and have nicknamed Bill 152 the "green tsunami."

Bill 512, originally authored by Zoning Committee Chairwoman Donna Kim and refined by Councilman John DeSoto, would allow golf courses in several zones, subject to the city's Plan Review process, a relatively speedy method applied to universities, convention centers, hospitals and prisons. The Department of Land Utilization, various agencies and neighborhood boards comment on proposals, then the City Council holds one public hearing and votes in the form of a resolution.

The council was to vote on the bill in mid-December. But because of numerous objections, the bill was sent back to the Zoning Committee which will study it further and make its recommendations before sending it back for a council vote. The Zoning Committee was scheduled to meet again Jan. 23.

The Zoning Committee will take into consideration the opinions of groups like Hands Around Oahu, which wants golf courses approved by ordinance, not resolution, in order to widen the spectrum of agencies and public opinion to be consulted.

A major sticking point for opponents of the bill is that the Plan Review process cannot be challenged by initiative because it is an administrative act.

Hands Around Oahu has submitted a bill that would analyze the cumulative effect of new courses rather than judge each on its own merits. It would include criteria to evaluate projects in regard to fresh and coastal water and competing land uses. It also would broaden access to the courses by residents who, Hands says, are being squeezed out of the courses by high fees.

A companion bill would add a special tax on golf-course revenues.

Mayor Frank Fasi has suggested — and Hands Around Oahu agrees — that new courses be limited to three a year.

To that idea, Kim's aide, Bob McGraw said, "Absurd and capricious. We'd be wide open for a suit."

## NCA warns: 'Stay vigilant'

Legislation that poses both great concern and opportunity to country clubs is being debated in state legislatures across the nation, according to the National Club Association's director of government relations.

Attorney Thomas M. Walsh, reporting in the organization's magazine, "Club Director," said that among the areas being discussed are privacy, the environment, property taxes, limits on liability, employer-employee relations, alcohol control, taxes and health insurance.

NCA is lobbying basically only in Congress but "can mesh its national overview with the local expertise of clubs and their members," accord-

ing to Walsh.

He gave as an example the NCA's Texas chapter. The group was formed primarily to fight against legislation that would have made many private clubs public. NCA Director Bob Meyer was called to document the clubs' position that the legislation was unconstitutional, and that position won in that case.

Walsh said vigilance — keeping abreast of exactly what laws are being authored — is a must for clubs across the country.

"Chances are great that many problems will occur, and many opportunities will arise in state legislatures," he said. "The area fraught

with greatest danger is the threatened intrusion of governments into membership decisions of clubs. Legislatures continue to entertain proposals to declare private clubs to be public accommodations, which, if passed, would subject clubs to unwarranted public scrutiny...

"Regardless of their own membership policies or how homogenized their membership profile is, clubs should be concerned with such proposals.

"They have the potential for much mischief because they would involve state governments in a private club's single most important function, selecting its members."



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As with any crop protection chemical, always read and follow instructions on the label. CHIPCO is a registered trademark of Rhone-Poulenc.



# Oregon

Continued from page 1

ruling, which would give them (OAFB) less time to collect the signatures," said Leah Nelson of the Oregon Seed Council. She noted that 65,000 valid signatures must be turned in to the secretary of state's office by July 8.

Oregon's 800 seed growers and 70 seed companies provide all U.S.-produced ryegrass, bentgrass, Chewings and creeping red fescues, half the U.S.-produced tall fescue and about one-fourth its bluegrass. Between mid-July and the end of September each year, the 800 farmers who grow seed

burn their fields to purge them of the weeds and disease that endanger the grass seeds.

In 1988 when one farmer was burning a field, the wind changed direction and blew smoke across a highway, causing a seven-death, 37-car accident. Since that time, the Oregon seed industry and its Seed Council have been lobbying against proposed field-banning legislation.

The state now allows burning on 250,000 of the 300,000-plus seed-producing acres, and the farmers must pay \$3.50 for every acre they burn.

The state legislature last summer voted down a measure that would have reduced the amount of burning and increased the fee. But Gov. Neil Goldschmidt has joined with one state senator and one representative to write an initiative that, if passed, would by 1995 cut the acreage to 50,000.

The Environmental Quality Commission, which oversees the program, would be allowed to further reduce the maximum acreage or ban burning entirely if it "certifies that an economically feasible, environmentally acceptable alternative exists."

The proposed law would also change the fee structure to include a \$1- to \$2-per-acre registration fee, and charges of \$2 per acre for propane-flamed burning, \$6 per acre for field burning and \$3 per ton for burning stacks or bales of hay.

Nelson said the initiative would also make stack burning illegal in September 1997, "which would really cripple us."

Opponents of the burning say it poses health and safety dangers and harms the tourism industry.

Nelson said the per-acre fee that farmers pay is used to help fund the Environmental Quality Com-

mission which is supposed to finance research to find new ways to purge the fields.

"But they have spent all the money on the administrative process, so that for two years in a row now there has been no money for research, which is bothering the growers a lot," she said. "We fund somewhere in the neighborhood of \$800,000 a year and they're spending \$750,000 on administration, which we all feel is a bit extravagant."

Despite the delay in the courts, the Seed Council is assuming the Oregonians Against Field Burning will get the necessary signatures on its petition.

Yet, the council discovered in a poll that if the petition musters enough votes by July 8, the industry would win in the November voting if it can effectively show voters how critical it is to the state.

The seed industry employs 10,000 and contributes \$750 million a year to the state.

"If people find out that that money and those jobs will be affected by them voting for the initiative, we have found (in the poll) that they will not support it," Nelson said.

The council has mounted a drive to raise the \$1.5 million to \$2 million it feels it needs for such a campaign.

It is raising funds among the growers, seed dealers, implement dealers, chemical dealers, banking associations, and others who have a relationship with the seed industry.

"We are holding the funds until we find out if the initiative will get on the ballot," Nelson said. "If we wait until July, it's too late to put a campaign together. If they don't get the signatures, we will refund the money we raised from the growers."

Meanwhile, an initiative that would mean an out-and-out ban to field burning is still being circulated. But supporters have gotten only about 21,000 signatures in about one year.

People who wish to contribute to the seed industry campaign can make checks payable to Oregonians for Agriculture at 866 Lancaster SE, Salem, Ore. 97301.

## Tax board checking for discrimination

The California tax board is surveying private clubs across the state, reviewing articles of incorporation, bylaws, club regulations and other documents to determine if any are using discriminatory practices.

Club members lose their ability to deduct club-related business expenses on their state tax returns if their club is found to be restricting any service or facility.

The tax board has ruled that separate tee times for men and women is discriminatory. Men's-only grills and card rooms might also be ruled discriminatory.



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# Project's future lies with Supreme Court

BY BOB SPIWAK

Okanogan County, in north central Washington, is the largest county in the state. It's bigger than Connecticut and within its mix of desert, plains and alpine terrain five nine-hole courses serve its golfers.

Now, a 18-hole layout is being designed by Robert Muir Graves in the northwest corner of the county. It is questionable whether it, and a proposed 18 to follow, will get beyond the drawing board.

The course is a portion of a proposed \$250-million resort called Early Winters, whose centerpiece for almost two decades has been a destination ski resort. Located just east of North Cascades National Park in the Methow (MET-how) Valley, the resort has been a major controversy since 1972, when the Aspen Corp. planned the original



Methow Valley, site of the hoped-for Early Winters golf course.

ski hill.

If golf were considered at that time, it was barely mentioned. Aspen is now out of the picture and a new development group, Methow Recreation, Inc., has taken up the cause. Its president, Doug Devin, is a local rancher and ski devotee and with other locals as well as out-of-towners, continues to fight for what has evolved into a four-seasons resort.

But local opposition to Early Winters was joined by several environmental groups including the Sierra Club. Each move by MRI has been countered by its opponents, and the conflict reached the U.S. Supreme Court late in 1988. Little was resolved.

At the core of the dispute is the question of major development in an ecologically sensitive pristine area of public and private lands. The valley, some 70 miles long, has a population of about 3,500. The nearest post office is at Mazama. It dispenses mail, gasoline, groceries and gossip. It's a general store with a wood-burning stove to chat over. The Mazama precinct has about 100 registered voters along a 12-mile strip of highway.

The ski resort would eventually provide for up to 8,200 skiers a day, although the initial numbers are estimated at one-third that amount. There would be a village, condominiums, shops ... the usual resort facilities.

The projected assault of skiers worries some locals. Not only hustle and bustle displacing a laid-back lifestyle, but the loss of winter solitude, degradation of a pure river, air, noise, and light pollution, and overall a lessening of the "quality of life" for which many moved to this valley in the first place.

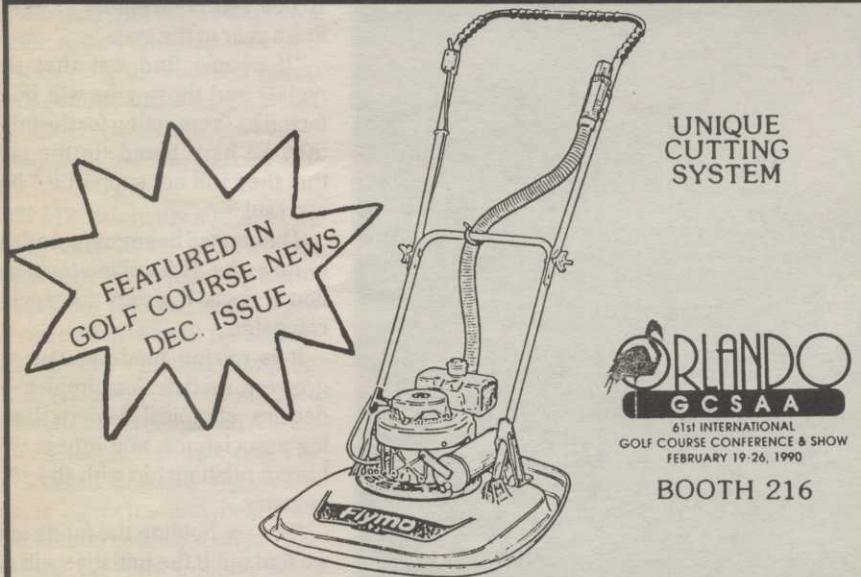
The upper Methow is also the home of the largest mule deer herd in the state. Potential disruption of migration patterns, as well as impacts on other wildlife, has brought game officials and conservationist forces into the fray.

The valley is a long sliver of private land surrounded by national forest. The proposed ski hill is on Sandy Butte, the south wall of the development and on federal land.

*Continued on page 19*

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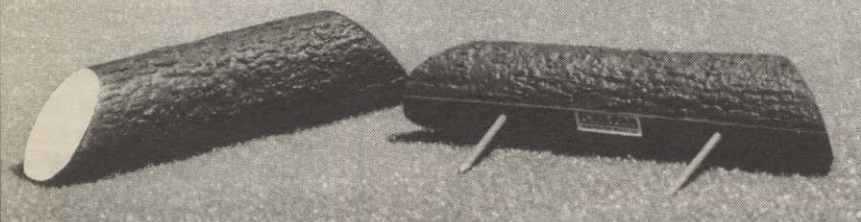
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# Ag Secretary Yeutter to address institute

Agriculture Secretary Clayton Yeutter will be the keynote speaker at The Fertilizer Institute's 1990 annual meeting scheduled for Feb. 11-13 at the Opryland Hotel in Nashville, Tenn.

Yeutter will hold a "town meeting" with TFI members on Monday, Feb. 12 at 4 p.m. He will discuss legislative issues for the coming year, including the 1990 farm bill.

The theme of the meeting is "Agriculture: Right On."

"I think it is appropriate to begin the 1990s by focusing on the tremendous benefits of U.S. agriculture," said TFI President

Gary D. Myers. "Our meeting will be a celebration of the success of U.S. agriculture and a preview of the challenges of the next decade."

Two panel discussions will explore issues for the year ahead. One will focus on the supply and demand outlook for nitrogen, phosphate and potash, the major fertilizer nutrients. Another will be a review of studies being conducted to determine the effects on food production of the elimination of commercial fertilizer.

"Before we make public policy decisions based on risk paranoia, we need to under-

stand the consequences of banning or significantly reducing fertilizer use," said Myers.

The meeting will also feature TFI committee meetings and a board of directors meeting.

## Washington

*Continued from page 18*

The golf complex would be adjacent to the resort village, on private land. The two 18-hole courses and a three-hole golf "academy" would occupy what is now unused farmland gone to weeds.

Surrounded by mountains that are snow-capped most of the year, its alpine magnificence drew repeated comments of wonder from Graves when he first visited the site last September.

The valley was formed by Ice Age glaciation. When the ice retreated, what little topsoil remained was removed by "outwash," the flushing of soil by rivers born of the melting ice sheath.

All domestic water in the area comes from wells, and with the aquifer lying beneath a cobble and gravel surface barely covered by soil, golf course opponents cite the possibility of pollution by herbicides, fungicides, pesticides and fertilizers.

The area gets about 12 inches of precipitation a year, most of it as snow. Recent years have been near drought. During the winter of 1987-88, Wells in the valley as far as 10 miles downstream of the resort site went dry. With irrigation of 18 holes in similar terrain using from half to a million gallons a day, the question is, where will the water come from? Not only for the resort and its two villages, but for the remaining 65 miles of river valley.

In the mid-1970s, a coalition of concerned people was formed under the banner "Methow Valley Citizens' Council." To the proponents of resort development, this group represented obstruction, tree-hugging and Bambi-loving. MVCC hired an attorney and in court disputed the Forest Service's initial Environmental Impact Statement (EIS) for the original Aspen resort. Aspen lost the court battle and took its investment money to British Columbia.

Over the years since then, the Forest Service has worked toward perfecting the EIS.

As the state and county governments became supporters of the resort, the Sierra Club and other environmental groups joined with MVCC in opposition. After a lower court upheld the revised EIS in 1987, the Citizens Council took the case to the 9th Federal Circuit Court of Appeals.

In a decision that surprised many, that court overturned the lower court decision and ruled that the EIS was inadequate. This decision was subsequently appealed in part by the Forest Service to the U.S. Supreme Court.

Last May 1, the high court ruled that two of the four inadequacies cited by the Circuit Court did not have to be addressed before a permit could be granted by the Forest Service. These were a "Worst Case Analysis" and a "Mitigation Plan" involving impact on the deer herd.

Prior to construction, however, they would have to be dealt with, along with evaluations

of alternative sites for the ski hill, air pollution.  
*Continued on page 54*



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## USGA Green Section honoring Mendenhall

Cited as an important symbol and the last of his era, 94-year-old Chester Mendenhall will receive the 1990 USGA Green Section Award at the GCSAA International Golf Conference and Show in Orlando, Fla., in February.

Mendenhall, who in 1948 was elected the 12th president of the GCSAA, helped pioneer the role of the modern superintendent during the post-World War II golf boom.

As one nominee noted: "Mendenhall... was directly responsible for the development of professional turfgrass managers for golf—men who have built their careers by combining the science, art and dedication necessary to produce today's fine golf turf."

Through Mendenhall's efforts, the GCSAA annual conference was first held in the West and that organization became effective on a national scale.

"Chet Mendenhall's greatest contribution was that he made the GCSAA a national organization. He facilitated East meeting West," one nominee said. "(He) epitomizes the modern golf course superintendent, and he has been more than a sideline supporter of the Green Section."

As golf expanded in the 1950s and 1960s, Mendenhall actively participated in the growth and development of new machinery, the use of new chemicals, and improving management techniques.

Mendenhall's zeal in promoting his profession and the Green Section has been well documented. A charter member of the GCSAA, the organization presented him its Distinguished Service Award in 1968.

A Kansas native, he helped build the first municipal golf course west of Kansas City. After retiring from his superintendent's job, he designed several golf courses in Missouri and Kansas.

He is the last remaining charter member of the National Association of Greenkeepers of America.

## Neus elected Mid-Atlantic president

The Mid-Atlantic Association of Golf Course Superintendents has elected William Neus of Hobbits Glen Golf Club to the presidency.

Neus, who succeeded Walter Montross of Springfield Golf and Country Club, heads a new slate of officers that includes Vice President Nick Vance of Latonsville Golf Course, Treasurer Steve Potter of Woodholme CC and Secretary Kenneth Ingram of Columbia CC.

Meeting at Hunt Valley Golf Club, the association elected Directors Donn Dietrich of Maryland Golf and Country Club, Lou Rudinski of Eisenhower Golf Course, Jim Kelly of Green Hill Yacht and CC, Scott Wagnor of Leisure World of Maryland, Mitch Williams of Manor CC and John Laake of River Bend Golf and CC.



Chet Mendenhall

# ASSOCIATION NEWS

## N.J. superintendents elect Finamore

Stephen Finamore of Alpine Country Club in Demarest has been elected president of the Golf Course Superintendents Association of New Jersey.

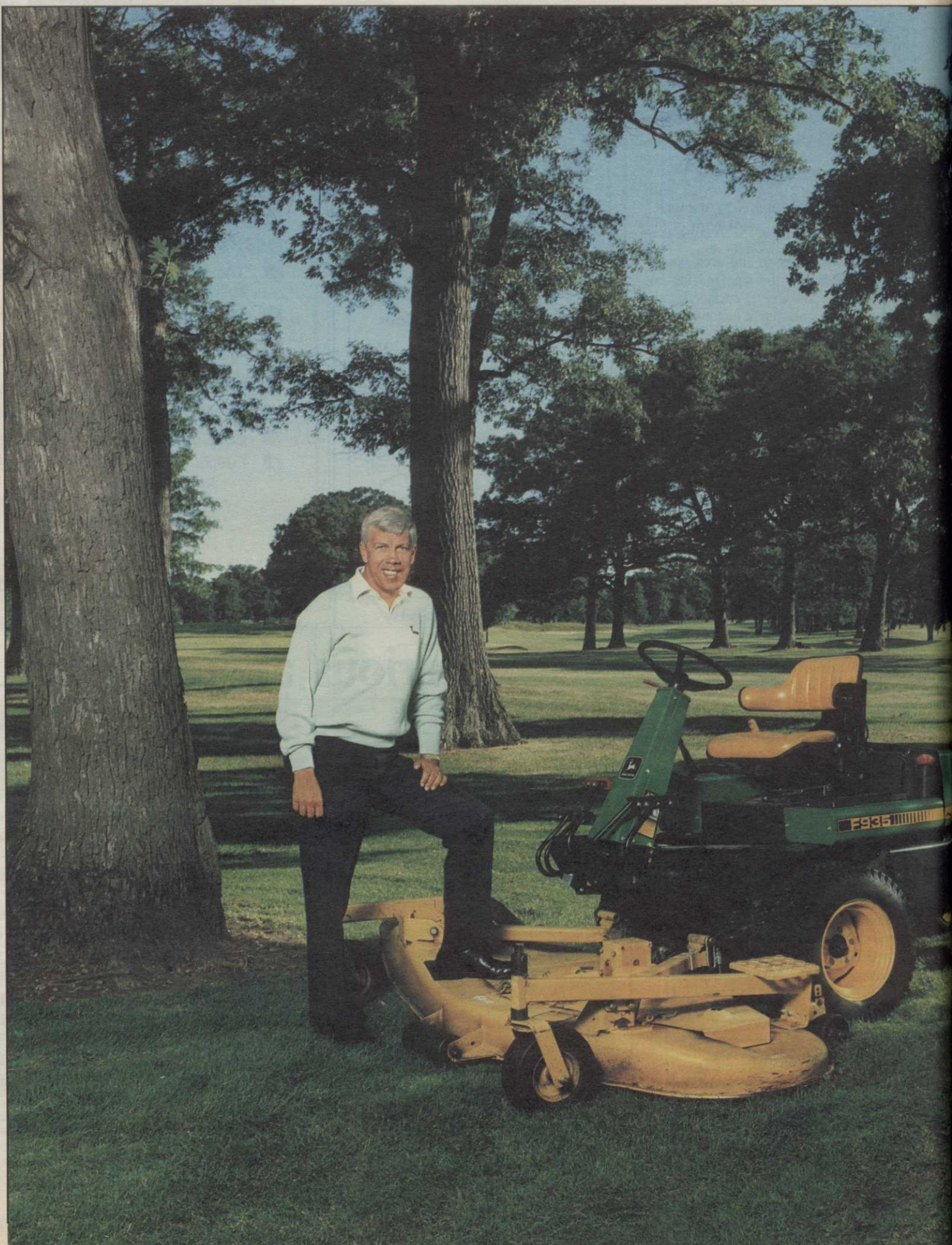
Finamore's fellow officers are Vice President David Pease of Monmouth County Park System's Hominy Hill Golf Club in Colt's Neck; Secretary Cris Carson of Echo Lake CC in Westfield; and

Treasurer Leonard Florenza.

Directors elected for two-year terms were John Carpinelli of Moorestown Field Club; Paul Powondra of Princeton Meadows Country Club in Plainsboro; Lawrence Dodge of Essex Fells Country Club; and Bruce Peebles of Spring Lake Country Club.

Fulfilling their second year on the board are Thomas Grimaldi of

Tavistock Country Club in Haddonfield; Richard LaFlamme of Lake Mohawk Golf Club in Sparta; Martin Mantell of LaTourette Park Golf Club in Staten Island, N.Y.; Dave Mayer of Bowling Green Golf Club in Milton; and commercial representatives Shaun Barry of Nor-Am Chemical Corp. in Somerset and Steve Chirip of Lebanon Chemical Co. in Dayton.





# Architects pick Zoller for Ross Award



John Zoller

The American Society of Golf Course Architects will present its coveted Donald Ross Award to former Northern California Golf Association Senior Executive Director John Zoller.

Zoller's selection "acknowledges the organizers, builders and superintendents of all new golf courses," said ASGCA President Robert Trent Jones Jr.

The award will be presented on March 26 at the organization's annual meeting at the Inn at Spanish Bay on the Monterey Peninsula in California. It is given annually to a person who has contrib-

uted to the growth, understanding and public awareness of the importance of golf course architecture to the game.

Jones cited Zoller's "lifetime of service to the game," adding: "John has literally done it all within the game of golf and the business of golf since he first hoisted a golf bag in Hamilton, Ohio, a half century ago.

"As a recipient of the Donald Ross Award, John Zoller is recognized as an outstanding representative of the many people without whom the ASGCA's architectural efforts could not flourish."

Jones said: "We honor a golf course superintendent, a club manager and true gentleman who has played and contributed to the game of golf magnificently for more than 50 years.

"From caddy to turfgrass expert, and from the workshop to the front office, John Zoller has been everything to the game of golf. He has the unique distinction of having supervised and advised on all seven golf courses within the hallowed gates of the Del Monte Forest on the Monterey Peninsula."

As executive director of the Northern California Golf Association,

Zoller led one of the largest associations in the country from 1980 until retiring in 1989.

A major accomplishment during that time was development of Poppy Hills Golf Course at Pebble Beach, which marked the first time in North America that a golf association of volunteers had financed, built and operated its own course for the benefit of its 110,000 members and the golfing public. Poppy Hills will host the National Intercollegiate Championship in June 1991.

The NCGA's effort is now "a blueprint for every state and regional golf association in North America," Jones said. "What better way to establish and make available to players of all skill levels true championship facilities ... to conserve the open-space environment ... to foster 'open to the public' golf courses of high caliber all over the country ... to meet the exploding demand for our grand and glorious game?"

"Every golf course architect appreciates what John has done personally to enlarge and enhance our profession."

## Gruber Ohio's Man of Year

Coldstream Country Club superintendent Calvin Gruber was hailed as Man of the Year and Hinkley (Ohio) Country Club superintendent Jean Esposito was presented the Professional Achievement Award by the Ohio Turfgrass Foundation at its Conference and Show in December.

Meanwhile, the OTF installed a new slate of officers including President John Fanning of Cincinnati, a sales representative for the Kentucky turfgrass and seed supply firm of George W. Hill Co.; President-elect Joe Motz, owner of Motz Inc. lawn-care firm in Cincinnati; Vice President Paul Jacquemin, who owns Jacquemin Sod in Marysville and works at Morral Chemical in Plain City; and Treasurer Bill Pound of the Ohio State University Department of Agronomy Extension.

Gruber has been superintendent at Coldstream since it opened in 1960 and has kept the Cincinnati course in condition to maintain its Top 100 standing from Golf Digest every year since.

Cited by Fanning as a national leader in golf course groundskeeping, Gruber is known as the originator of lightweight mowing on fairways.

Esposito, the long-time superintendent at Hinkley, was honored for her active work for the Northern Ohio Golf Course Superintendents Association, which she has served as president, and for her civic work in the community.

OTF also honored outgoing President Jim Sharp, an irrigation specialist with Century Equipment in Pemberville, and presented service and appreciation plaques to outgoing Directors Bruce Augustin, Ted Pasko and Richard Foote.

## Rough duty just got easier at the Old Elm Club

Nearly all the elms are gone now. But that doesn't mean the Donald Ross and H. S. Colt designed Old Elm Club outside Chicago doesn't have its share of trees. Oaks have taken their place over the last 75 years—mature additions that make the John Deere F935 the perfect choice for mowing its roughs.

"We purchased our F935 with a 72-inch deck three years ago for mowing our roughs," says Ed Fischer, superintendent here for the last nine years. "It's the only way to go when you have as many trees as we do. Since then, we've also purchased a flail mower that we use on the F935 to break up aeration cores in the fairway.

"Ease of operation is one of the F935's biggest advantages. We get more work done with the F935 because our operators don't mind sitting on it for eight hours a day. They stay productive longer.

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*Ed Fischer uses 10 John Deere 22 Greens Mowers to keep greens and tees immaculate at Chicago's Old Elm Club.*



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# New York group cites Oak Hill CC super Hahn

The New York State Turfgrass Association presented the Citation of Merit to Oak Hill Country Club superintendent Joseph Hahn and gave \$20,000 in grants and donations to turfgrass research and education.

Meanwhile Stephen Smith of Buckner Sprinkler Co. in Thompsonville took over the reins as president from William B. Stark III and declared that education and the environment would be the keys to his administration.

Declaring that one of his goals is the education of NYSTA members, the general public and state legislators, Smith said the future of the

green industry and the environment is a major concern for the 1990s. Balancing these concerns will continue to be difficult, he said, and NYSTA must commit a strong leadership role.

Industry is in a position to help state lawmakers create the best legislation to protect and enhance the environment while maintaining turf to enjoy, Smith said.

Smith heads a slate of officers that includes Vice President Michael Maffei of Back 'O Beyond in Brewster and Secretary-Treasurer Timothy Madden of Mt. Snow, Ltd.

Hahn was recognized for his work to educate turfgrass profes-

sionals and his "meticulous effort to advance turfgrass culture."

Hahn began work maintaining golf courses at the age of 14, and at 18 became assistant superintendent at Brookfield Country Club in Buffalo.

In 1963 he accepted the greens superintendent position at Braemar Country Club in Rochester where the second nine holes were then built.

While superintendent at Locust Hill Country Club from 1967 to 1983 he was awarded the first Superintendent of the Year Award by his peers in the Finger Lakes Association of Golf Course Super-

intendents in both 1970 and 1984, and was in charge of the grounds during six LPGA tournaments.

In 1983 Hahn moved to Oak Hill, which hosted the U.S. Senior Open in 1984 and the U.S. Open in 1989.

NYSTA officials said the organization was "proud to honor one of its members who inspires such respect and regard from the entire industry. He is a wonderful example to all who know him."

NYSTA officials said the bulk of the \$20,000 contributed was raised at four Poa Annua Golf Tournaments sponsored by golf course superintendents' associations across the state last fall. Proceeds

were donated to turfgrass research during the annual Turf and Grounds Exposition at the end of the year.

At the annual meeting plaques were presented to Stark, of Turf Renovations in Homer, for contributions during his presidency and as an officer and director for six years; Steve Moffett III as a director for 13 years; Richard Canale as a director for six years; and Joseph Laubenstein, who served as secretary-treasurer from 1987-89 and as a director from 1983-87.

Serving as directors in 1990 are Eugene R. Bowler Jr. of Green Gene's Inc. in Port Washington; J.R. Brundage of Brundage Lawn Maintenance in Medina; Thomas Corell of J&L Adikes in Jamaica; John Fik of Park Ridge Hospital in Rochester; Steve Griffen of Saratoga Sod Farm in Stillwater; John Liburdi of Heritage Park in Loudonville; Karl Olson of National Golf Links in Southampton; Tom Strain of Vestal Hills Country Club in Binghamton; and Stark.

## GWAA chooses Linda Craft, Boatwright

The Golf Writers Association of America will honor Linda Craft and P.J. Boatwright Jr. this spring, presenting Boatwright the William Richardson Award and Craft the Ben Hogan Award.

Craft, who was runner-up to Sally Little for the Hogan Award last year, will be honored at the GWAA's Masters Tournament dinner in April. She was followed in the balloting by Pat Bradley and Jim Nelford.

Boatwright edged out Tom Watson, who was followed in the voting by Joe Jemsek, Deane Beman and Tony Jacklin. He will receive his award at the GWAA's annual dinner at the U.S. Open in Chicago in June.

The organization's Players of the Year — Tom Kite, Betsy King and Bob Charles — will be presented their awards at the Masters dinner, Dinah Shore Open and a Senior Tour event, respectively.

Kite received more votes than the other seven Male Player of the Year candidates combined and King was a walk-away winner over six other female players, but Charles won a close vote edging out Orville Moody. Nine other Seniors were in the balloting.

## PLCAA turf video available

A new educational tool, a videotape titled "The Value of Turf — For Today and the Future," is available for the turf industry.

The 10-minute tape is available through the Professional Lawn Care Association of America's Education and Research Foundation. Funds from sales of the tape will support PLCAA's work with educational and research-based programs.

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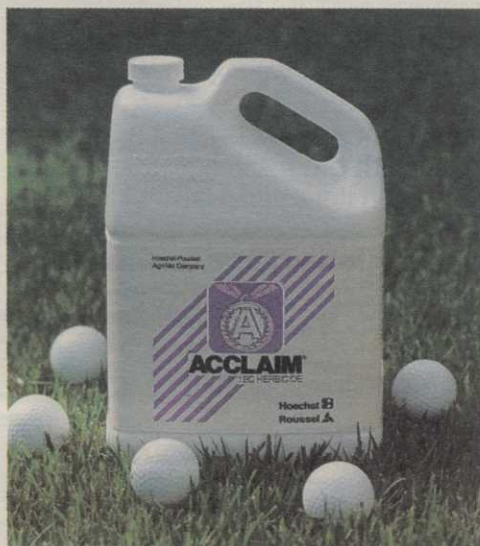
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## Craw named golf sales head at Hunter

Hunter Industries of San Marcos, Calif., has appointed Gard Craw its golf sales manager to head up the sprinkler manufacturer's newly instituted Golf Division, according to general sales manager Chuck Huston.

Craw will oversee product development and worldwide sales as well as set up a new golf products distribution network.

"Hunter Industries is entering the golf market with a line of sprinklers and control systems that will feature the newest technologies in water and energy conservation," said Huston.

Craw joined Hunter Industries as a district manager more than seven years ago when the company was founded. He was recently the institutional series sales and product manager. He has worked in the irrigation industry for more than 20 years.

## LPGA promotes two, hires one

The Ladies Professional Golf Association has promoted staff members Kathy Milthorpe and Mike Waldron to the positions of vice president of finance and administration and director of tournament sponsor relations. The LPGA also named Holly Geoghegan of Rochester, N.Y., director of communications.

"As we celebrate the dawning of a new decade in 1990, we also will see the LPGA move into new and exciting avenues of opportunity," said Commissioner William A. Blue in explaining the promotions. "We need to ensure that we have the appropriate personnel to fulfill the needs of our sponsors, members and headquarters operations. Kathy Milthorpe and Mike Waldron are tremendous assets to this association and possess all the qualities we are looking for in our top-level management."

Milthorpe, raised in Texas, joined the LPGA in 1986 as manager of finance and administration.

She holds a bachelor's degree in accounting from Texas A&M University and worked with the public accounting firm of Coopers & Lybrand in Houston, Texas.

Waldron will be a liaison between the LPGA, its tournament sponsors and the sponsor association "to enhance the information exchange amongst all sponsors on the rapidly expanding LPGA Tour schedule." He was a tournament official with the LPGA in 1980-81, then joined Executive Sports Inc. and helped administer more than 50 professional golf tournaments. He worked briefly as Southeast region affairs representative for the United States Golf Association.

Geoghegan owned and operated Bonus Mail, a direct mail marketing firm she founded in 1982. She also established Bonus Graphics, a computer graphics design company that provides integrated marketing communications for advertising, promotions and public relations.



Gard Craw

# ON THE MOVE

## Slugocki gets promotion at Poellot

James B. Slugocki has been promoted from construction supervisor to manager of construction services for J. Michael Poellot Golf Design Group in Saratoga, Calif.

Slugocki will be responsible for managing construction of JMP-designed golf courses throughout the world.

He was transferred from Japan

back to the California headquarters to assume his new duties. In Japan he supervised construction of JMP's Tomisato Golf Club and the Caledonian Golf Club. The 12 years before joining JMP in 1987, Slugocki was a general construction superintendent with Wadsworth Golf Construction Co. He worked on construction of two

courses before that and supervised course maintenance for the U.S. Open at Pebble Beach in California and the PGA Championship at Oakland Hills in Michigan.

He holds a bachelor's degree in natural resources from the University of Michigan and has studied turf and landscape architecture at Michigan State University.

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## Aquatrols adds scientist, rep

Aquatrols President Robert Moore has announced the addition of Dr. Mane Santakumari as senior scientist and Phil O'Brien as technical sales representative.

Santakumari has a Ph.D. in plant physiology from Sri Venkateswara University in India and has two years of post-doctoral research experience there and at Rutgers University.

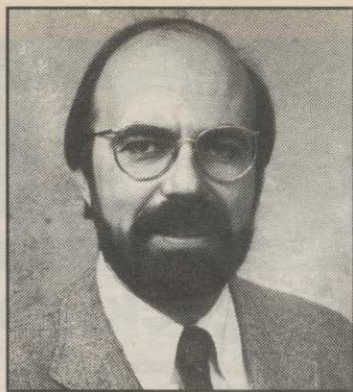
She has had 23 scholarly articles published in national and international journals. At Aquatrols she will assist the director of research in quality control, technical service and product development.

"Dr. Santakumari's research



**Mane Santakumari** experience in plant-water relations, antitranspirant development and herbicide activity makes her a valuable addition," said Moore.

O'Brien has more than nine years of industrial sales experience throughout South Jersey and Penn-



**Phil O'Brien** sylvania.

He will represent the company in a territory covering Long Island, south to Virginia and west to Harrisburg, Pa..

He is a graduate of Glassboro State College.

## Hunters Run appoints Pollitt

Robert K. Pollitt has been appointed PGA director of golf at Hunters Run Golf & Racquet Club in Boynton Beach, Fla.

Pollitt was the club's head professional the past three years and before that director of golf at Mahogany Run in the U.S. Virgin Islands.

## Wilson super at Crystal Tree

Peter Wilson has been named superintendent at Crystal Tree Golf & Country Club in Orland Park, Ill.

Wilson is a Pennsylvania State University graduate and formerly superintendent at Medinah CC.

## Ciba-Geigy names Jackson rep

Steve Jackson has joined Ciba-Geigy's Turf and Ornamental as a sales representative in the Northwest.

Jackson joins Ciba-Geigy from ChemLawn, where he also was in

sales.

The addition of Jackson brings the number of sales representatives in turf and ornamental products to 16.



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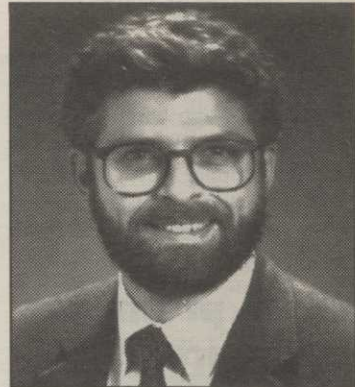
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Scott Boutilier

## Ringer taps Boutilier

Scott Boutilier has been named commercial marketing director for Ringer Corp., and has relocated to the Eden Prairie, Minn., headquarters of the manufacturer and marketer of natural, organic fertilizers, pesticides and composting products.

Boutilier previously worked as marketing director for Nitragin (Lipha Chemicals, Inc.) in Milwaukee, Wis., and handled various sales and product management duties with Rhone-Poulenc in Montana and New Jersey. His work with both companies focused on agricultural chemicals and biological products in specialty markets.

Boutilier earned a bachelor's degree in entomology from the University of Idaho and did graduate research in insect physiology at the University of Minnesota.



Cara Warne

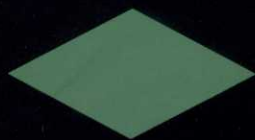
## Warne appointed

Neogen Corp., a biotechnology research firm, has appointed Cara Warne marketing services manager.

Formerly with KFGW Advertising, Warne will work in the Predictive Instruments Division at the Lansing, Mich., headquarters.


She is a graduate of Westminster College.





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1. How much 8-4-24 fertilizer would need to be applied to get  $\frac{1}{2}$  lb. of K. per 1,000 sq. ft?

- a. 1.66
- b. 1.05
- c. 2.00

2. What is one of the advantages of using Sulfate of Potash over Muriate of Potash?

- a. Faster release
- b. Better root development
- c. Lower burn potential
- d. All of the above


3. Dollar Spot and Red Thread can be controlled with an application of the following?

- a. Nitrogen
- b. Potash
- c. Fungicide

4. Hairy chinch bug adults can cause the greatest damage in which type of turf?

- a. Ryegrass
- b. Fine fescue
- c. Bluegrass





5. Roughs that have undergone severe drought stress would be best treated with the following formulation?

- a. 46-0-0
- b. 38-0-0
- c. 18-5-9

6. On Bermuda tees and fairways where sprigging has taken place, what product would be most effective in controlling annual weed pressure?

- a. 18-5-9
- b. 19-4-6 with Ronstar
- c. Pendimethalin

7. Fairy ring can be controlled with an application of the following?

- a. Systemic fungicide
- b. Contact fungicide
- c. Fertilizer
- d. None of the above

8. *Veronica Filiformis* can be controlled with an application of the following?

- a. Acclaim
- b. Bensulide
- c. DCPA

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# Rain Bird's expansion means promotions

## Golf Division on the move

With the golf boom extending into the 1990s, the Golf Division of Rain Bird Sales, Inc., has expanded to meet the growing needs of superintendents, irrigation consultants, contractors and architects.

Rain Bird has promoted Ed Shoemaker to the position of vice president/general manager in order to oversee the sales, marketing, engineering and manufacturing operations of the Golf Division.

The home office in Glendora, Calif., has also brought Steve Christie on board as director of sales and marketing.

Six new field sales and service positions have been established as well.

Rod McWhirter has been named national golf specification manager and has begun working directly with architects, designers and irrigation consultants across the country.

Four new golf sales managers are Alan Clark, Shawn Connors, Dave Ferron and Jim Schumacher, with sales responsibilities in the Northeast, Southwest, Northwest/Rocky Mountains, and Southeast, respectively.

The Golf Division has also created a golf service manager position to provide service support in the Northeast/Atlantic Seaboard area.

Shoemaker brings more than 30 years of irrigation and business experience to his post. He previously was Golf Division vice president responsible for the firm's domestic sales and marketing efforts.

Prior to joining the division in 1985, he served as the director of sales and marketing for Rain Bird's Turf Division.

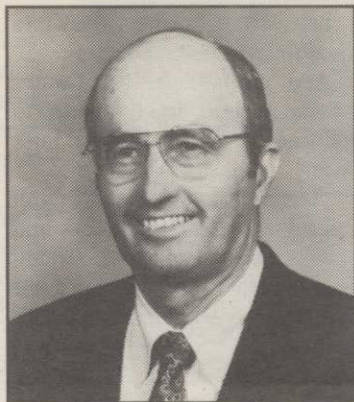
Christie has 15 years of golf course and turf irrigation experience.

He will direct the company's newly expanded field sales and service staff as well as direct the new product development activities and coordinate the maintenance and technical support of the current product line.

Christie was assistant superintendent at Broadmoor Country Club in Indiana before becoming a salesman for the local Rain Bird golf distributor.

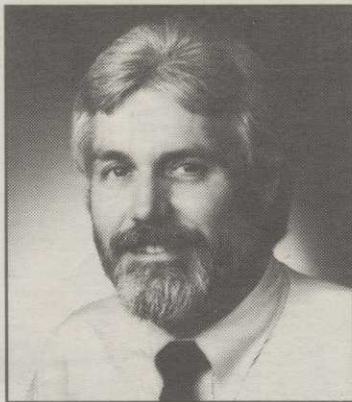
McWhirter, who has more than 20 years experience in the golf business, was an assistant superintendent and an irrigation contractor before joining the company. At Rain Bird he has been a golf irrigation designer, district manager for the agriculture and turf markets, regional sales manager for the Turf Division, and Western golf manager.

Connors worked as superintendent for Arrowhead Country Club in Glendale, Ariz., before moving on to Rain Bird and serving as product application engineer in the desert Southwest and Texas.



Ed Shoemaker

Ferron was product application engineer in the Pacific Northwest, Rocky Mountain region and Great



Steve Christie

Plains states prior to this appointment.

He spent several years working

in the landscape and irrigation contracting business in the Northwest.

Before joining Rain Bird, Clark worked as superintendent at Medina (Ohio) Country Club and at Ridge Top Golf Club in Medina.

Schumacher served as the agronomist for the city of Huntsville, Ala., before becoming Huntsville deputy director of parks in 1984.

He is a certified golf course superintendent and has managed two courses in Alabama.

Rain Bird is one of the world's leading manufacturers of irrigation equipment.

## Gilbert leaves PGA for post in marketing

Former Professional Golf Association marketing director Edward N. Gilbert was recently named senior vice president of account services for Robinson, Yesawich and Pepperdine, Inc., a full-service agency serving the hospitality, travel and leisure industries.

Gilbert, 38, will be responsible for supervising all marketing and advertising account services for the Maitland, Fla.-based firm.

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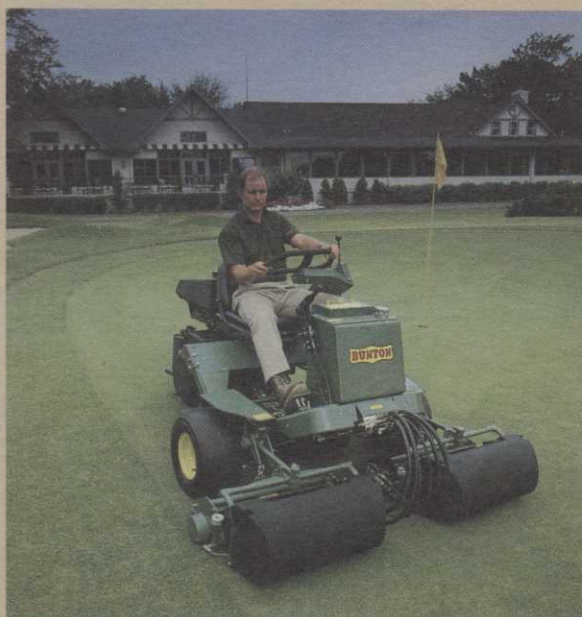
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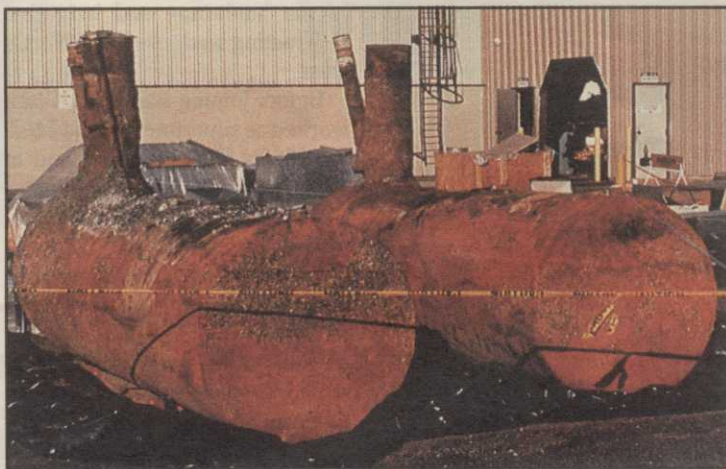


# Tanks

Continued from page 1  
age after 16 years."

Malotke said the biggest reason for leakage is corrosion from outside the tank. Ninety-one percent of leaks come from external corrosion as opposed to physical damage, loose fittings or corrosion from inside, she said.

Underground tanks are regulated — by the Bureau of Underground Storage Tanks — if they are storing petroleum or toxic substances. If a superintendent stores gas or hazardous material in a tank and 10 percent or more of the bottom of the tank is underground, it is considered an underground tank



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... because of its ability to leak into the ground, she said.

And, she added, "Your water source may be directly related to an underground storage tank leak."

"We have a situation at a golf course that had a tank leak and traveled to an adjacent nursing home," Malotke said. "They are looking at spending megadollars to clean up something that was preventable."

"They didn't account for the fact that they were putting twice as much gas into the tank as they were using..."

"If you have a half-gallon leak a

## A checklist

- ☐ Are your tanks safe?
- ☐ Have you upgraded your underground storage tanks?
- ☐ Have you installed a leak-detection monitoring system?
- ☐ Are your tanks corrosion protected?
- ☐ Do you have a monthly inventory record?
- ☐ Should you repair or remove any tanks?
- ☐ What is the safest and most cost-effective option?

day that is 180 gallons in a year."

Malotke said that once a tank is pulled from the ground, an inspector will check for holes. If any are found, he will ask for "copious soil testing because he figures you've caused pollution" she said.

"You're trying to find as little as a one-half gallon-a-day leak," she added.

Malotke said a superintendent can do three things to find out if he has a problem:

1) Inventory control: Account for as little of a loss as a half gallon per day.

"If you can't do an inventory control tight enough to account for that, then you can't do an inventory control. It's a paperwork pain in the neck," she said.

2) Detection devices: Sink monitoring wells near the outside of the tank; and take ground samples and pressure tests.

3) Sample/monitoring: Dig cores or wells around the tank to look for leakage.

"Many people are just taking their tank out. It is a lot less trouble and probably not much more costly," she said.

Malotke said anyone who has an underground tank must notify state authorities.

Last August a law took effect requiring that overfill protection be provided on underground tanks as a minimum requirement.

She said many people are choosing to install above-ground tanks.

"It's off the ground, out of the way. You do not have 10 percent of the tank touching the ground," she said, but added, "The biggest problem you're going to have with an above-ground tank is with the fire department."

She said many fire departments will not allow above-ground gas storage tanks.

But if a community's fire department does allow that type, it has many advantages, she said.

"You know you're not going to

*Continued on page 28*

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# Structure eliminates hazardous spills

BY MARK LESLIE

The president of a lawn-care business told an Ohio Turfgrass Conference audience recently that his firm has "virtually eliminated any serious consequences" from the spills that hazardous materials applicators live in fear of today.

Fred Haskett said that although "accidents are going to happen," the chemical storage building he and other officials at Green World in Dover, Ohio, designed and built provides complete protection.

Haskett said the 2,500-square-foot pesticide containment area — covering half Green World's building — was designed to:

- Contain spills.
- Recycle chemicals.
- Provide for safely handling hazardous materials.
- Protect water, sewer and storm drainage systems.

Installing such a facility, he said, is crucial to golf courses and the lawn-care industry as a whole, and, in a worst-case scenario, provides a payback of two to three years.

"We are being watched by a whole host of groups, for a variety of reasons, from the federal government and national groups, to state and local agencies, to private citizens," Haskett said. "And the underlying question is, can we back up our methods, both in the areas of external and internal operations?"

"One accident, one spill, could result in the loss of your business, or the loss of your insurance carrier and your ability to buy insurance," he said.

"You should, as professional, safety-conscious operators, be in compliance on this issue. Your association (Ohio Turfgrass Association) supports it. Your trade journals supply it. Your suppliers to the industry support it.

"The issues are safety and, especially, waste disposal. They loom very large on the horizon for all of us."

"Sooner or later there will be no choice," he said, "and those of us who have dealt with it on our own terms, head-on, will be better off than those who bury their heads in the sand."

Haskett cited three basic benefits to building the spill-containment structure: economic, environmental, and employee protection.

## Economic benefits

"Our estimates are that a company such as mine could be spending as much as \$5,000 to \$8,000 annually on simply waste-product disposal," he said. His building can reduce exposure to spills and accidents, lower cleanup costs, which can be "astronomical," and can cut insurance rates, he added.

He also said federal and state tax credits are available for the installation and maintenance of anti-pollution systems, for which this structure would qualify.

## Environmental benefits

The major environmental benefit is the reduction or elimination of the potential of ground-water, sewer and water-system contamination, he said.

"You can eliminate the storage, transportation and disposal of chemical waste residue," Haskett said.

## The system

The facility Green World built to protect it from "potentially devastating problems," Haskett said, includes: a secondary containment area, where dry fertilizers, trucks and spraying units are parked; a segregated, primary containment area; and a spill containment area.



Haskett's creation can contain any spill Green World might have.

"Accidents are going to happen. We are limiting their impact by containing them. We have virtually eliminated any serious consequences from these events," Haskett said. "And with our recovery system we can recover or recycle all spilled materials ... by integrating the storage and mixing systems on site."

Stored materials are in a contained and diked area, so that no spill in the building can possibly get outside.

## Recycling system

An effective, comprehensive recycling system can be one of the most important systems for protecting a golf course.

Haskett suggests a three-way mix program of concentrated products, fresh water and compatible dilute residues. With it, he said, a superintendent can "significantly reduce or even eliminate the regeneration of any hazardous chemical waste."

He said his firm uses a triad of recycling systems. The primary one is in the secondary containment area for turf chemicals. It has a 1,000-gallon tank, into which go residues of triple-rinsing from containers, rinsed residues from cleaning out spraying units, and similar turf-associated materials.

A smaller container is used for the same types of residues from ornamental, tree and shrub spray.

A third tank is available for non-selective vegetation control residues.

## Safe handling

"Another aspect of this system is that it can help establish, or enhance, a program of pesticide handling safety," Haskett said.

The separate areas are well-defined, and with the addition of signage and color-cod-

**'Accidents are going to happen. We are limiting their impact by containing them.'**

— Fred Haskett

ing, they can serve as a warning and a reminder to the employees as they move about the shop.

Additional features such as emergency eye washers and showers and fire extinguishers are easily accommodated within this system, he said.

"We have a segregated sink within the primary containment area for washing or rinsing gloves and small sprayers, things of that nature, and this falls through into the recycling area," he said.

"Finally, all of our offices and public access areas are completely segregated from all shop areas."

## Water and sewer protection

Meanwhile, the system offers protection from contaminating the water, sewer and storm-drainage systems in the area.

The primary protection for fresh water coming into the building is a backflow preventer.

In addition, all water outlets except rest rooms are equipped with hand-siphoning devices.

Ground water and sewer system protec-

*Continued on page 29*



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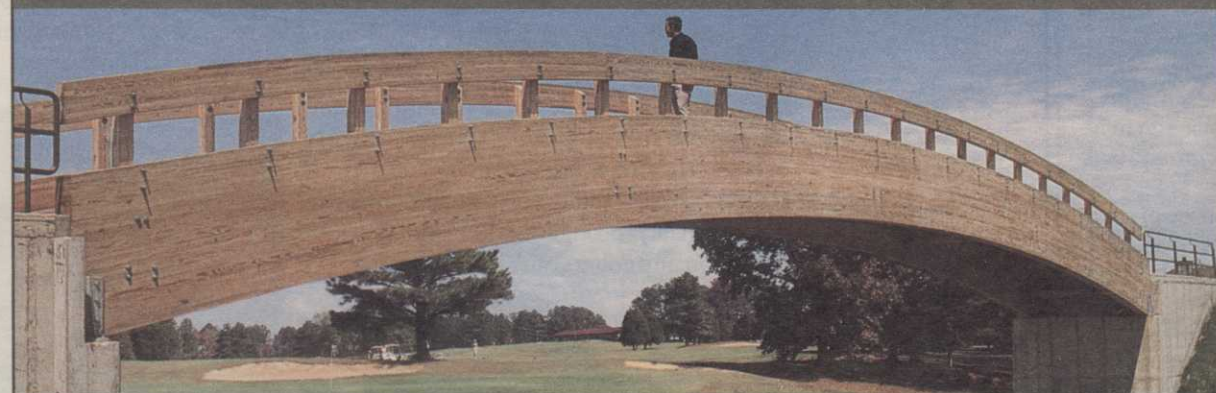
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# Tanks

Continued from page 26

have a problem because you can see a leak. You're not regulated by the underground storage tank people, not regulated by the EPA (Environmental Protection Agency) if it's gasoline. It's basically probably the safest approach to take," she said.

Malotke said: "Clearly the first line of defense in disposal is to use the stuff up. Mix up what you need; buy only what you need and use it up."

If a course has materials it no longer uses there are some firms that will exchange other materials for them, she said.

"There are also some chemicals that are on such a 'hit list' that the only way to get rid of them is to fill out a 40-page form... with OSHA (Occupational Safety and Health Administration)."

"When you're making your chemical inventory list for OSHA and come across something you no longer use, there is no time like the present to get rid of it," Malotke said.

EPA lists four types of materials that can not be thrown out:

1) anything that can burn, if it has a flashpoint less than 140 degrees;

2) anything that is caustic or corrosive and can corrode things;

3) anything reactive; or

4) anything toxic.

To find out if a material is toxic a person should look up its CAS number.

EPA identification numbers are like a Social Security number (for the golf course), she said, while the CAS number is its site ID number.

"If you have 220 pounds or less of waste, in any calendar month, of routine kinds of gasoline, methylene chloride, you don't come under the tight regulations of material disposal," Malotke said. "But if you have acutely toxic material, it is 10 times worse. If you have an EPA identification number you have to tell them what it is you are throwing away."

Malotke said the expense of disposing of hazardous material should be incentive enough to be careful that any underground tank is safe and not leaking.

"If you have to dispose of a material then they (EPA) start looking and they have to have lab work done, and if they find a chemical in it, the cost starts to rise dramatically. The price of disposing of hazardous material can be upwards of \$800 a drum."

"If you will go a long way toward showing the EPA that if you do have a problem it was an accident, that it was totally unexpected, that will keep you off that EPA hit list and will save time as well as money," she said. But, "If you can't document that you've been looking (for leaks), and it turns out you've had a slow leak for six months, you are going to have much more of a problem proving that this was, in fact, an accident."

"One of the focuses of management needs to be in the area of waste management, preventing

**'You can be seriously fined personally; never mind being responsible for someone being hurt.'**

— Mary Malotke

emergencies," she said. "Watch out for signs of leakage; unusual odors; signs of drum or tank damage; unusual sounds; and inspect during a quiet time."

She said that when there is a spill, two things must be dealt with: vapors and ground contamination.

"First, stop the spill from get-

ting bigger, like turning the drum so the hole's on top," she said. "Second, clean it up. Go to the safety data sheet and CPA number, call EPA or a lawyer or environmental firm and they will call EPA."

Spills of pesticides, herbicides, cleaning compounds and similar

materials are often required to be incinerated. So it is essential to keep the spill as small as possible and clean it up as quickly as possible before it soaks any further into the ground.

Malotke said she knew of only four facilities in the country that incinerate and they are located in Chicago, Alabama, Texas and Tennessee.

"The cost will be in the neighborhood of \$800 per drum to incinerate; \$200 to \$300 to ship each drum; and another \$200 to \$300 for lab work on each drum," she said.

Once waste is spilled, a golf course has approximately 180 days

to have it shipped.

A safety data sheet on materials tells how big a spill must be before it must be reported; what procedure to use; what clothing to wear, etc.


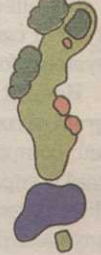
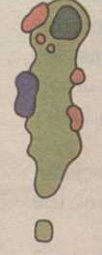
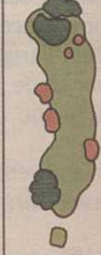
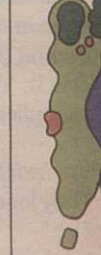


"Any fire can be dangerous when toxic chemicals are involved," Malotke said. "You should plan how you would deal with a toxic fire. Management should know who to call; know where everyone should assemble. You have to know where everyone was when the fire hit."

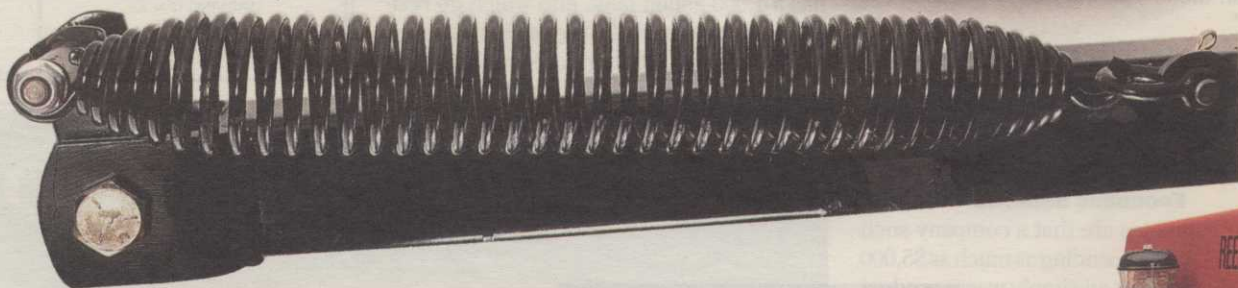
"You can be seriously fined personally; never mind being responsible for someone being hurt."

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## Storage building

Continued from page 27

tion is achieved by containment dikes, effectively keeping water runoff from going outside the building. It features a self-contained, stainless steel sump where materials spilled onto the floor or through washing can be recovered and returned into the recycling system.

Green World also has coating on the floors and walls that is chemical- and water-resistant, thus inhibiting spills and allowing workers to recover them.

"The other sections of the building, which support our mowing and maintenance operation, are

equipped with discharges into the normal sewer system; but they are also equipped with oil and sediment interceptors," Haskett said.

Haskett said his company went through the government system, getting authorized documentation and approval from local and state regulatory agencies and departments, starting with local health, water, sewer and zoning officials and ending with the Environmental Protection Agency.

Detailed plans and graphs and schematics were prepared appraising the specifics of the building, where the water comes into the

building and where it leads in various sites and how it's recovered; what is done with container disposal and triple-rinsing; and where the finished product formulation and usage goes.

The result, Haskett said, is "a system that Ohio EPA described to us as the best available technology of this type."

"It provides us with protection from accidents and with handling. It has helped us significantly with public opinion in town among the department heads and municipal people we deal with. It has helped us significantly with insurance

rates. And it has established for us a positive relationship with the people who regulate us," he said.

Haskett, who has formed a consulting and design firm to help businesses interested in this type of pesticide containment building, said: "Let's send a new message: that we are a safety-conscious industry; that we are not afraid of good regulation; that we are protecting the environment in and around our facilities; that we are protecting our employees and our neighbors.

"We are only helping ourselves when we do this."

## States pushing regulation

Many states have become heavily involved in regulating underground storage tanks, according to attorney Thomas M. Walsh, director of government relations for the National Club Association in Washington, D.C..

Walsh, who has begun to monitor state legislative action around the country, reports in NCA's "Club Director" magazine: "A California proposal ... would require a permit before a new tank can be installed and would require future removal or upgrading of most existing tanks.

"Other states are considering or have passed specific legislation to provide environmental impairment considered proposals governing environmental impairment insurance for tank owners."

Walsh said many legislatures have also discussed proposals governing "the proper disposal of pesticide containers."

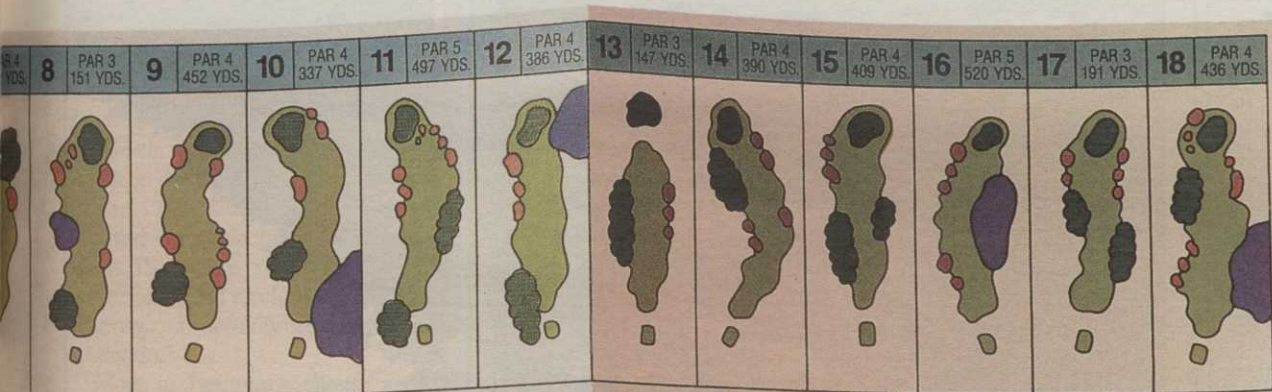
He said other legislatures might offer protection from liability for application of pesticides as long as they are applied legally and in accordance with manufacturers' instructions.

Still others, he said, "direct their attention to proposals to control and punish" discharges from tanks into waterways.

Walsh recommended that clubs get involved in the input on pending legislation.

"State legislation concerning underground storage tanks will undoubtedly impose new regulations," he said, "but by helping to develop those proposals, clubs will have the opportunity to make sure that the regulations are reasonably designed to protect the surrounding land, which includes the land of the club itself."

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For free information circle #128

## Nicklaus, Palmer to design portion of major project

A \$750-million destination resort that will include 45 Jack Nicklaus and Arnold Palmer-designed golf holes is being planned for the U.S.-owned island of Guam.

Johnson Fain and Perreira Associates, a Los Angeles-based international architectural/planning firm, is doing the master plan and design of 1,300-acre Miyama Hills for Miyama Company, Ltd. of Tokyo.

Targeted primarily at the Japanese tourism market (Guam is a two-hour flight from Tokyo), the resort community will include 3,000 single-family homes, duplexes, townhomes and condominiums, plus a 200-room luxury hotel and conference center.



# Wetlands odyssey: From problem to attraction

BY PETER BLAIS

Federal and state laws regulating development around wetlands have forced golf course designers to look at these natural areas in a different light.

Instead of wet holes into which as much fill as possible must be poured to ease play, these lush homes to numerous animals and plants are being incorporated as added attractions into the final design.

"Wetlands are being integrated into the design of a course instead of being destroyed and built somewhere else," noted Kevin Noon, a senior environmental scientist with

See related commentary, p. 10, and story, p. 48.

the Michigan landscape architectural firm Johnson, Johnson and Roy.

"Once a golf course architect experiences integrating wetlands into his design, he usually becomes very hot on the idea. They can make the environment unusually attractive."

Noon was involved with the design of the Ford TPC course in Dearborn in southeast Michigan, an area not noted for its topographic variety.

*Continued on page 31*



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*Ecoshores President Steve Beeman, left, and Hammock Dunes project planner John Schlegal look over the cord grass beautifying the lakeside of a fairway bunker.*

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# Wetlands

Continued from page 30

Michigan law requires every wetland area that is filled to be replaced elsewhere on at least a one-to-one basis.

At Ford TPC, six wetland areas were left untouched and just three filled and replaced.

"The builder was real happy with the results and we were able to preserve an ecosystem by building it into the course," said Noon.

The situation is even more dramatic in Florida where wetlands aren't just being preserved, they're being created, according to Steve Beeman. The former state environmental department biologist is the owner of Ecoshores, Inc., which designs and constructs vegetated shorelines in coastal wetlands, dunes and fresh-water ecosystems.

His company has grown from a two-man operation in 1978 to a 40-person firm that does \$1.5 million in business annually.

"For years, wetlands were simply lost to development," said Beeman, who estimated that 60 percent of Florida's wetlands had been lost when he went to work for the state in 1974.

"Then in the late 1960s we started to realize what an important role they played in cleaning the water, keeping fish alive, providing homes for animals.

"Government regulation cut down on destroying wetlands, and in the 1970s and early 1980s we focused on replacing those wetlands that were removed. Now we've come full circle to the point where we are actually creating new wetlands."

Most of Beeman's clients are large real-estate developers, many with residential golf course communities. One of Ecoshores' biggest projects was Hammock Dunes Private Community in Palm Coast, Fla.

The developer identified about 40 acres of functioning wetlands to be preserved. In addition, mosquito ditches and borrow pits were opened up and connected to the marshes and lakes to form a water management system.

A year later, the shorelines of lakes and marshes are flanked by cordgrass with dense root masses for effective erosion control and nutrient uptake.

In between the Tom Fazio-designed course's 10 lakes, Beeman created a series of artificial kidney marshes.

Storm and excess irrigation water passes through the man-made marshes, leaching out excess nutrients, pesticides and fertilizers before it reaches other waterways. Animals have already moved into the new wetlands.

Beeman's company used sea oats to restore and re-vegetate the community's five miles of oceanfront dune line that had been destroyed by nature and vehicles and eventually eroded by the waves.

"Sea oats put down a good root base and they act as a seed trap for all other dune plants and grasses growing in the area," Beeman said.

"Occasionally we plant saw palmettos and Spanish bayonets to discourage people from walking on the sea oat plantings."

Panic grass, dune sunflower, seagrass and sea purslane were also used to stabilize the sand dunes.

In addition to the ecological shot in the arm plants provide, they can also add a competitive challenge. At many of the courses he's planted,

Beeman has placed fresh-water cordgrass between the championship, men's and ladies' tees.

"You have to hit your ball over

them. You can't get away with a worm-burner. The cordgrass makes for a very attractive and abrupt border. It stays green most of the year and turns a bright, golden color in the winter. It's nice stuff," said Beeman.

Beeman charges anywhere from \$5,000 to \$15,000 an acre to install vegetated shorelines. But that is often cheaper than seawalls, bulkheads and the like, according to Roy B. Mann of the Austin, Texas, environmental consulting firm of RMA/Texas.

Mann has consulted on golf course projects in Texas and Mas-

sachusetts. Regardless of locale, Mann recommends a developer seek out a landscape architect with the following abilities:

- Proven design skills, especially regarding topography and existing tree stands.
- A strong understanding of the game.
- A grasp of slope and drainage requirements.
- A knowledge of turf installation and management.
- A thorough knowledge of waterway and wetland characteristics, including natural and man-made features.

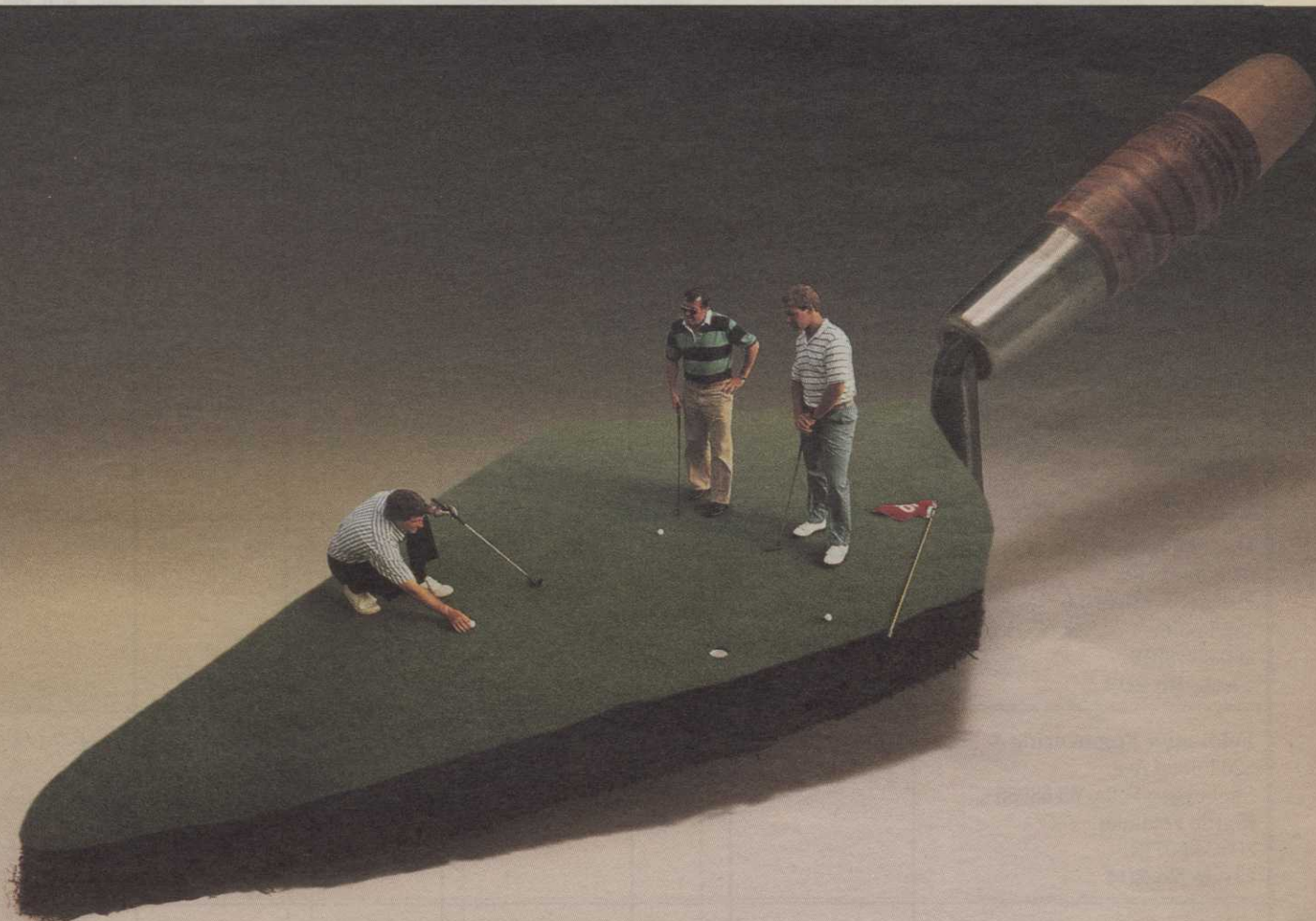
## Antioch GC renovations under way

Renovations are underway and new homes planned for the Antioch Golf Course, formerly Harbor Ridge and Antioch Country Club, in upstate Illinois.

The golf management firm GreenVisions began a \$1 million-plus facelift of the 18-hole, public course in October.

That work is scheduled to be completed in May.

Also an additional 60 single-family homes and 50 townhouses will be built. The homes and sites should sell in the low \$200,000s.



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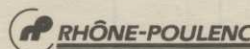
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# GOLF COURSE NEWS

## 1990 survey of aerator manufacturers

## Deeper, faster

BY MARK LESLIE

The race is on between aerator manufacturers to develop machines that will aerate golf course greens deeper and faster yet leave a quality playing surface.

"We're trying to get in and out of the green as cleanly and perfectly as you can," said Dennis Brown, manager of marketing services at The Toro Co.

"It's a development problem," said Bob Brophy, manager of lawn-care products for Cushman/Ryan. "You've got to develop a machine that will leave a quality playing surface and still get that depth;

and that is a real challenge."

It is yet another challenge in the evolving field of grounds maintenance where priorities change and research finds new truths.

Ten years ago there was a transition from quality to speed, Brophy said. "A lot of the younger superintendents were willing to give up the quality that the reciprocating aerators would give them in lieu of the fast speed of the rolling drum type. That's when the Cushman GreenSaver and the Hahn and Dedoes ... and all those (companies) came in for greens. Now there seems to be a trend —

Company	Model	Type	Walk/Ride/Pull	Hole Spacing	Spacing Changeable?	Minimum-Maximum	Sq.ft/Hour	Width	Weight	Tine Depth Interchangeable?
<b>Classen Mfg. Inc.</b> 1403 Pine Industrial Rd. Norfolk, NE 68701 Larry Classen 402-371-2294 <b>Circle No 201</b>	455-3	Piston	Walk	2	Yes	1 - 6	27,000	54	1,040	Yes
<b>Cushman Inc.</b> 900 North 21st St. Lincoln, NE 68501 Scott Stuckey, Clarke Staples 402-475-9581 <b>Circle No 202</b>	GA30	Piston	Ride	Variable	Yes	1 - 5	28,125	30	1,200	Yes
<b>Dedoes Industries, Inc.</b> 91 Roberts Rd. Ossineke, MI 49766 Jim Poole 800-662-8235 <b>Circle No 203</b>	Model A	Drum	Ride	2 1/4, 4, 5 1/4	No	N/A	N/A	70	850	Yes
<b>Feldmann Engineering &amp; Mfg.</b> 520 Forest Ave. Sheboygan Falls, WI 53085 Myrtle Feldman 800-344-0712 <b>Circle No 204</b>	Model 2340-32	Drum	Pull	3 1/4	Yes	3 1/4 - 7 1/2	16,000	32	85 w/o weights	Yes
<b>Aer-Way, Holland Equipment</b> 20 Phoebe St. Norwich, Ontario NO1JO Paul Gillen 519-863-3414 <b>Circle No 205</b>	AW056S-1380-T	Drum	Pull	6 1/2	Yes	3 - 6 1/2	50,000	72	960	No
<b>Lesco, Inc.</b> 20005 Lake Rd. Rocky River, OH 44116 Ned Beach 800-825-3726 <b>Circle No 206</b>	Aerator-30	Drum	Walk	5 1/2	No	N/A	28,000	30	254	No
<b>Ransomes Inc.</b> One Bobcat Lane Johnson Creek, WI 53038 Maria Large 414-699-2000 <b>Circle No 207</b>	XRA 270	Piston	Walk	2 1/4-2 3/4	No	N/A	13,900	25	440	Yes
<b>The Toro Co.</b> 8111 Lyndale Ave. So. Bloomington, MN 55420 Dennis Brown 612-887-8805 <b>Circle No 208</b>	09110	Piston	Walk	2 1/4 - 2 1/2	No	N/A	13,000	27	1,275	Yes
<b>Verti-Drain</b> 501 Tall Trees Drive Scranton, PA 18505 Charles Otto 717-963-0829 <b>Circle No 209</b>	305.200H	Piston	Ride	4	Yes	2 - 6	218,406	79	3,500	Yes



# the challenge to aerator companies

and it's reflected in drops in sales — back from the drum types. Superintendents are saying: 'We need the quality. We're willing to pay the extra labor and time to have the quality aeration job.'

"And in lieu of this, Cushman/Ryan and various manufacturers around the country are trying to come up with faster reciprocating aerators. That's why you're seeing the advent of the faster (machines): to give back some of that speed so they can cut down on labor while still maintaining the quality that they want."

Brophy said recent surveys re-

veal that superintendents want to go deeper in order to combat black layer, an anaerobic layer between two different soil densities, such as sand and topdressing. "And so I think most manufacturers are looking at deeper core aerification or cultivation of the green," he said.

One traditional problem with deep aeration has been that it tends to tear up the surface and it takes a lot of labor to make the greens playable again.

Yet Paul Gillen of Aer-Way, Holland Equipment Ltd. said deeper aeration has been the philosophy in Western Europe, particularly

England and Scotland, for 10 years. Superintendents there found that they were actually forming a pan by continually aerating at a fixed two- or three-inch level, he said.

"At the bottom of the coring tine there is pressure," Gillen said, "and they found if they continued to aerate at the same depth they were ... going to run into problems in growth and moisture... And at the same time they started having problems with black layer. So they knew they had to get down below the black layer and started using our equipment on the greens."

Citing research in England that

shows grass root systems will grow eight inches and deeper below the surface, Gillen said: "If you've got a root system that's there and established, it has that much more feeder root system to absorb the nutrients, it has that much more tap root system to absorb the moisture so you don't need as much fertilizer, you need less herbicide because you've got a healthier grass ... and it is not as susceptible to compaction because you have that root system. The pluses go on and on and on."

Toro's Brown said, "We're work-

ing on deeper tining, deeper core removal, getting below that three- to 3 1/2-inch level is certainly one of the desires."

The major companies have their research arms working on ways to beat the black layering that plagues so many courses.

Brophy of Cushman/Ryan said: "Toro's looking at a program. Jacobsen is. I've heard John Deere is. I know we are."

"When all this equipment is going to be available, God only knows... Normal span from drawing board to the marketplace is

*Continued on page 48*

Depth Variance	Diameter Variable?	Diameter Variables	Manufacturer's Listed Price	Parts-Service Centers	Pull Plug?	Tines Solid or Open	Core Removal Attachments
1, 3	Yes	3/8-3/4	\$6,500	N/A	Yes	Open	None
23/4, 33/4	Yes	1/4-3/4	N/A	76	Yes	Full circle, top ejection	Core Harvester, Windrow, Levelawn]
25/8, 3, 3 1/8	Yes	3/8-3/4	\$4,848	67	Yes	Solid	Drum sides collect cores
0-2 1/2	No	5/8	\$319.50	N/A	Yes	Open	None
8	N/A	N/A	\$1,950	100+	No (shatter)	Solid	None
3	No	5/8	\$995	None	Yes	Both	None
24	Yes	1/4-3/4	N/A	35	Yes	Open	N/A
0-3	Yes	3/8-3/4	N/A	50+	Yes	Open	Windrow
1-16	Yes	3/4, 1	N/A	33	Yes	Both	None



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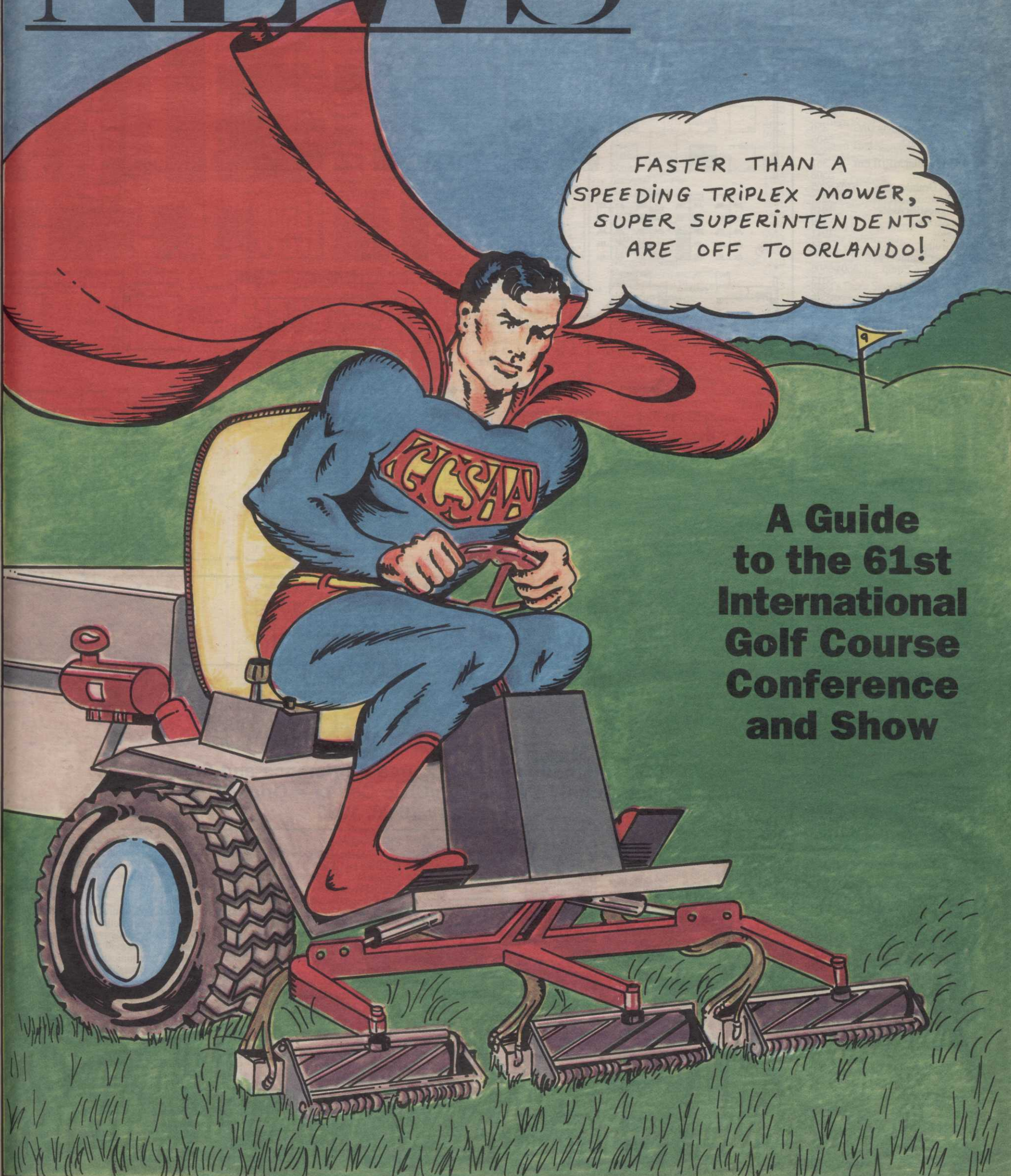
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# GOLF COURSE NEWS



FASTER THAN A  
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ARE OFF TO ORLANDO!

**A Guide  
to the 61st  
International  
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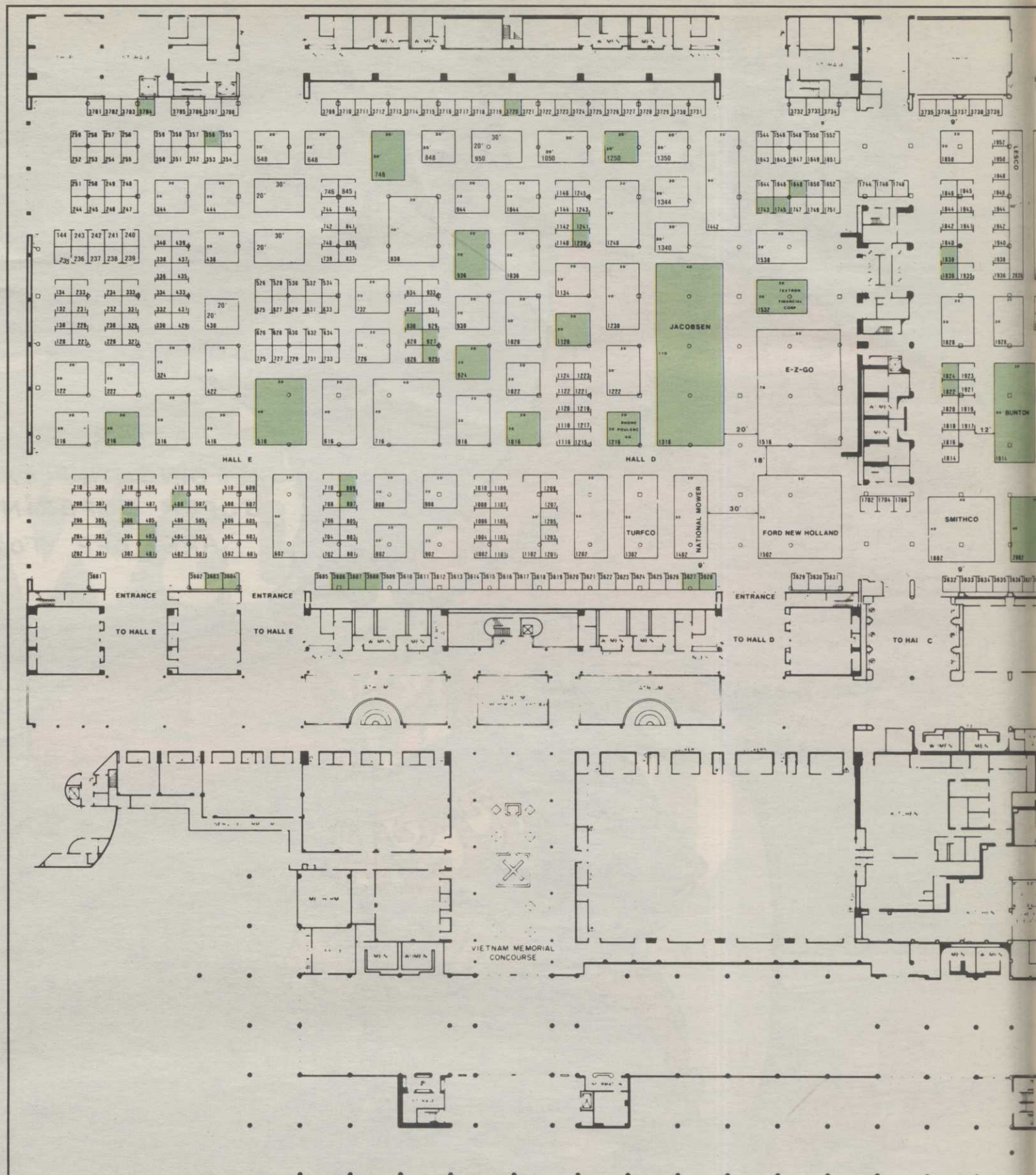


Following is a list of all exhibitors and their booth numbers at the 61st International Golf Course Conference and Show, sponsored by the Golf Course Superintendents Association of America, Feb. 19-26 in Orlando, Fla.

Advertisers in this issue of *Golf Course News* are those listed in green, and their booth locations are colored on the map.

Please pull out this four-page center section of the paper and carry it with you as a guide to the show, lectures and other events.

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**61st International Golf Course Conference and Show**  
**Orange County Convention/Civic Center • Orlando, Florida**  
**February 19-26, 1990**

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Curtis Dyna Fog	5406	D.E. Wolfe Metal Fab	3709-3711	Flexalon	3762	Government Prod. News	5728-5732
Curtis Instruments	3707	Eastern Golf	3347	Flowtronex Int'l	950	Grace-Sierra	2135-2139
Curtis & Curtis	5828	Eco Soil Systems	5127-5129	Floyd & McKay Aerofier	3319-3321	Granite Graphics	5803-5805
Cushman-Ryan	2314	Egypt Farms/E&S Soil & Peat	3352			Great Salt Lake	
Cylex	1120-1122	EICON	3704			Minerals & Chem	5310
		Elanco Products	2247-2252			Greencare International	3302





Malletti Macchine Agricole Spa.	902	Sandoz Crop Protection	228-230
Manhattan Ryegrass		Saratoga Fence	601
Growers Assoc.	1107-1109	Schipper Bulb	356
Markers	5824	Seed Research of Oregon	925-927
Marlin Industries	5706	Selectric	5608
Martin Wheel	3614-3616	Shindaiwa	5512
Master of the Links	5601	Shuttlecraft U.S.A.	1050
Matco Products	3712	Slide-Winder	3705-3706
McMasters Rice Hull Compost	5707	Sierra Industries	429
Malex USA	1928	Sign Gallery, The	3743
Melroe	316	Simplex-Ideal-Peerless	605
Michigan Peat	249	SISIS Equipment	3601
Michigan Seat	3729	Smithco	1802
Micro-Trak Systems	3325	Snapper Power Equip.	732
Miles W. Fry & Son	248	Snowco-Kuker	1850
Milliken Chemicals	931-933	Soil Technologies	3235
Milorganite	2447-2451	Solatrol	3759-3760
Miltona Turf Products	3606-3608	South Ag	5620
Monsanto	3126	South Florida Turf Equip.	5320
Motorola Electronic Command	2942	Southern Concrete Pavers	3742
Mowing Machine	908	Southern Golf	5436
Multi Seal Tire Sealant	3746	Southern Screen & Emby.	3747-3749
M-B Inc. of Wisconsin	5720	Southern Turf Management	251
Naiad	3645-3646	Southern Turf Nurseries	3338
National Diversified Sales	431	Spear Manufacturing	231-233
National Golf Foundation	5631	Sports 4	1005
National Mower	1402	Spraying Devices	1240
Nearby Mfg.	1134	Spraying Systems	227-229
Neogen	2241	Spring Valley Turf Prod.	5409
Neptune Research	405	Standard Golf	2214
NGK Spark Plugs	5026	Standard Sand & Silica	5023
NIBCO	3713	Star City Fabrication	5827-5831
Noland Graphics	5832	Sta-Rite Fluid Power Group	122
Normarc Seed	5808-5810	Stenten's Golf Cart Access.	309
North American Green	5308	Stone Graphics	402
North Central Plastics	733	Stuart's Farm Service	3703
Northrup King	3419-3421	Sundstrand-Sauer	3625-3626
Nor-Am Chemical	2240	Sunniland	704-706
Nunes Manufacturing	3238	Superior Controls	3622
Nutri-Turf	1245	Sustane	1648
Olathe Manufacturing	2642	Sweepster	2243-2244
Onan	1828	SyncoFlo, Inc./Kesler Int'l	422
Oregon Fine Fescue Comm.	433	Technic Tool	5701
Oregon Ryegrass/High-		Tee-2-Green	1102
land Bentgrass Comm.	832-834	Teledyne Total Power	1250
Otterbine/Barebo	3632-3635	Terra Equipment Ltd.	626
O.M. Scott and Sons	2114	Terra International	5129
Page-Com	830	Textron Financial	1532
Palmetto Turf Farm	630	Tex-Net	134
Par Aide Products	1016	Thompson Mfg.	726
Parkway Research	3736-3737	Tifton Turf Farms	631
PBI-Gordon	1028	TNT Utility Systems	3613
Peco	438	Toro Co., Commercial Prod.	2514
Pelican Marine Ent.	5127	Toro Co., Irrigation Div.	2502
Pennington Seed	5212-5214	TransAmerican Soil	
Pepco	306	Blenders	3620-3621
Perfect Picker	3605	Triple Crown Fence	409
Perfection Sprinkler	3250	Trojan Battery	1201-1203
Perma-Sign by Ocala		True Temper/Cyclone	530
Marble & Granite	5123-5125	Turf Drainage Co. of America	5226
Pest Management Supply	5230	Turf Merchants Int'l	648
Phillips Fibers	3345	Turf Services	3761
Pickseed West	3220-3222	Turf Specialists	253-254
Piece	330-332	Turf Specialties	204
Pike Creek Turf Farms	338	Turfco Mfg.	1302
Pinhigh Reel Sharpening	510	Turf-Seed	1101-1105
Pioneer Peat	3755-3756	Turf-Tec International	3611
Plant Food	5628	Typographic Data Consultants	250
Plant Marvel Labs	506-508	T. Christy Enterprises	355
Plantstar	5130-5132	T.A.T. Golf Signs & Supply	3350
Playfield Industries	244-245	UAP Special Products	5626
Precision Laboratories	1836-1838	Uniroyal Chemical	305-307
Precision Small Engine	216	Unit Structures	408
Premier Brands	3349	United Stockmen	210
Prestige Cars	5410	University of Minn.-Waseca	5330
Professional Golfers' Assn	5729	USGA Green Section	5529-5530-5629
Professional Grounds		U.S. Battery Mfg.	744-746
Management Soc.	5531	Valent U.S.A.	3392
Progressive Electronics	5311	Van Waters & Rogers	246-247
Promark Products	1303	Vanderhave Oregon	3248
Pumping Systems	2914	Vermeer Manufacturing	3653-3655
Pursell Industries	1645-1647	Vicon	2348-2352
Pursley Turf & Tree Farm	5710	Vigoro Industries	3320-3324
R & R Products	2141-2151	Warrens Turf Nursery	3627-3628
Rain Bird Sales, Golf Div.	2132	Washington Manufacturing	544
Rain Jet Floating Aeration	1917-1921	Water Hog	5120
Rain Master	302-304	Water Utilities Services	1840
Rain Saver	648	Watertronics Pumping Systems	936
Ransomes	2202-2302	Weather-matic	3114
Raven Enterprises	3602	Western Pumping Systems	916
Recreation Resources	5031	Western Wood Structures	1219
RedMax	3603-3604	Weyerhaeuser Silva-Fiber	5604
Reelsharp USA	3720	Wheel Spray	2144
Reemay	1946	Wheeler Fertilizer	3619
Regal Chemical	2448-2452	White Hydraulic	5021
Regency Wire & Cable	1744	Wilbur-Ellis	435-437
Repower Specialists	1818	Wilco Distributors	3732
Resort Publishers	5603	Wilkins Regulator Div., Zurn Ind.	710
RF Inter-Science	5427	Willamette Seed	3443-3445
Rhone Poulenc	1216	Winrock Grass Farm	3610
Richway Industries	3744-3745	Wittek Golf Supply	3623-3624
Rico Mfg. & Supplies	3751-3752	Yamaha Motor, U.S.A.	3102
Ringer	3150	Yanmar Diesel Engine (USA)	5020
Riverdale Chemical	802	Yardney Water Mgmt. Sys.	357
Roberts Seed	5826	Yeager-Twose Equipment	327-329
Roots	5704	York Modern	3649
Roseman Mfg.	2650	Zajac Performance Seeds	3237
Roto-Hoe	333		
Ruffin	5502		
R.G.B. Laboratories	1822-1824		
Salsco	5302		

This list of exhibitors was provided by the Golf Course Superintendents Association of America.



**Mon., Feb. 19**

8 A.M.

**Monday and Tuesday Two-Day Seminars**

- Basic principles of turfgrass management
- Business communication and assertiveness techniques
- Disease identification and control
- Environmental considerations in golf course management
- Golf course design principles
- Insect pests on golf course trees and shrubs
- Introduction to surveying
- Irrigation I: Equipment and technology
- Managerial productivity
- Turfgrasses: Qualities, uses and sources

**Tues., Feb. 20**

8 A.M.

**Two-Day Seminars Continue One-Day Seminar**

- Golf course safety, security and risk management

**Wed., Feb. 21**

8 A.M.

**One-Day Seminars**

- Biology of turfgrass soils
- Calculations and practical mathematics to use in turfgrass
- Employee training
- Financial management
- USGA golf course rating system
- Water quality and irrigation scheduling

**Wednesday and Thursday Two-Day Seminars**

- Basic turfgrass botany and physiology
- Golf car fleet operations
- Golf course construction techniques and management
- Golf course restoration, renovation and construction projects
- Integrated pest management
- Introduction to soil science
- Irrigation II: Systems design and management
- Landscape plant materials
- Plant nutrition and fertilizers
- Public relations and public speaking
- Turfgrass insects: Basic and advanced principles
- Weed control

**Thur., Feb. 22**

8 A.M.

**Two-Day Seminars Continue One-Day Seminars**

- Budgeting and forecasting
- Cardiopulmonary resuscitation
- Certification exam study guidelines
- Effective business writing
- Developing your hazard communication program
- Negotiating
- Safe pesticide management
- USGA intermediate rules of golf

8 A.M. - 5 P.M.

Certification study guidelines to gain Certified Golf Course Superintendent status. A course offered for superintendents beginning to study for the certification examination. It includes lunch. Participants must register on GCSAA conference registration form.

11 A.M.

**Conference and Show Registration Past Presidents' Luncheon Meeting 2 P.M.****International Reception 5:15 - 8 P.M.**

Opening Session and Reception, open to all attendees in the Peabody Orlando Hotel. The keynote address will be given by Dr. Ken Blanchard, author of "One Minute Manager" library. A cash bar reception with music and dancing will follow, featuring the Pink Flamingos.

8:30 A.M.-Noon

**Concurrent Education Sessions (20 minutes per topic)**

- Critically evaluating your needs: What should be in your job contract; the equipment bid process; comparison of cultivation equipment; gas versus diesel; low-maintenance alternative species for golf course roughs; how seed is evaluated; snake oils or legitimate products?; caution: turfgrass sampling in progress; sampling turf to improve grub control; your legal recourse for faulty work or products.
- Golf course management techniques I: Annual flower beds: designs that work; perennial plantings for the golf course; deep-tine aerification and root responses; the mechanism of winter injury; preventing winter desiccation on greens; using computers to

manage turf in the 21st century; the "grow-in" of Stone Harbor Golf Club; motivating your personnel; weather effects of El Nino, La Nina; using a camera for documentation.

- Managing today's environment: Ground water and the golf course environment; minimizing nitrate leaching from turf to ground water; the Cape Cod study: implications for the future ground water; pesticide fate in turfgrass; designing facilities for the safe and efficient storage, mixing and handling of chemicals; EPA update; coordinating a pesticide disposal day; employee training; the nursery industry: a natural for combating global warming; disease detection update.

11:30 A.M.

**CGCS (Certified Golf Course Superintendent) Certification Luncheon.****Friday, Feb. 23**

Pre-registration is required.

1 - 4:30 P.M.

**Concurrent Education Sessions (20 minutes per topic)**

- Golf course management techniques II: soil compaction and plant growth; subsurface application of pesticides and other materials; pesticide use and the creation of liability; new fertilizer technologies; controlled release — tee up the latest technology; the environment and grub control; controlling mosquitoes and other flying pests; practice tee overseeding; preparing for medical emergencies; the honeymoon is over.
- Southern turfgrass management: Controlling fire ants; spring dead spot research on Bermudagrass; the cause and control of localized dry spot on putting greens; does Zoysia have a place on your golf course?; watering and aerification during dry seasons; golf

course grow-in: an art or a science?; weed control in wildflowers and ornamentals; sod establishment with dormant Bermudagrass; the Bermudagrass-bentgrass putting green issue; modern procedures for winter overseeding of perennial ryegrass.

- Water quality and distribution: water quality and golf operations: do we have a problem?; prudent water management of warm-season grasses; irrigation efficiency; irrigation supply: the evolution of a new pond; low volume, low pressure systems; canopy temperature-based irrigation scheduling for cool-season turfgrass; weather stations versus the superintendent; fertigation programs for golf courses; xeriscaping: another viewpoint; wily weeds in water hazards.

5:15 P.M.

**Members Briefing/Meet the Candidates****Saturday, Feb. 24**

7:30 A.M.

**Conference and Show Registration**

9 A.M.

Ribbon Cutting Ceremony and Trade Show Opens. The trade show floor will close at 5 p.m.

CGCS (Certified Golf Course Superintendent Certification Examination. All examinees must be approved applicants in the certification process and prior to Jan. 15 must have submitted a written statement to GCSAA headquarters of intent to test.

11 A.M.

**International Round-Table**

Noon

**Voting Delegates' Luncheon**

1 - 4 P.M.

**Voting Delegate Check-In**

1 - 4:30 P.M.

**Concurrent Symposia**

- "Sand topdressing and cultivation,"

a discussion led by Drs. Paul Rieke of Michigan State University and Robert Carrow on the University of Georgia on methods for adapting cultivation and topdressing practices to fit specific golf turf conditions considering why, how and when. It will be chaired by Gary D. Sayre and panelists will include David Steon of the Honors Course in Colteqah, Tenn., Dan Quast of Medinah (Ill.) Country Club, and Jim Moore of the USGA Green Section in Waco, Texas.

- "Disney's commitment to professional horticulture," a talk by Katy Moss Warner, general manager of the Walt Disney World Nursery. Using slides, who will give a tour of the Walt Disney World horticultural operation and tell how the beautiful landscapes are achieved and maintained. Michael W. Rothenberg will chair the session.

1 - 4:30 P.M.

Golf Course Builders of America Session on The Golf Course Builders and Turf Management. Topics will in-

clude:

- Relationship between the golf course superintendent and the builder. International Golf Group President Jerry Pieman will address the relationship between the superintendent, builder and developer, a relationship that at times can be a harrowing experience unless they understand one another.
- Golf course construction in Canada. Atlantic Golf Construction Ltd. President Larry Brown will discuss the challenges facing a builder in Canada's diverse terrain and climate.
- Why USGA Specifications? USGA Green Section National Director William Bengueyfield will tell the USGA specifications are of vital interest to everyone in golf.
- Quality control of your growing media. Transamerican Soil Blenders President Troy McNeil will address the importance of the quality of the products selected for the greens mix and the mixing of those products.
- Getting water on the golf course.

Rain Bird Golf Division Vice President Ed Shoemaker will discuss the amount of water needed, technical requirements and measuring, along with product development, control systems, pressure regulating control valves, valve-in-head rotor pop-up sprinklers and drip irrigation products for unusual water needs.

- Forward tees and their role in modern golf course design. Golf course architect Alice Dye will speak on this popular concept.

• The architect/builder and his relationship to the developer and the superintendent. Golf Course Builders of America President Perry Dye will present his view of the vital relationship between the builder, architect and developer.

7 P.M.

Golf Course Builders of America annual dinner. Pre-registration must be made through the association's executive director, Don Rossi, at Palm Beach Gardens, Fla., headquarters.

**Sunday, Feb. 25**

tification Committee will be present to answer questions or discuss concerns. 1 - 4:30 P.M.

**American Society of Golf Course Architects Session, including:**

- Introduction and overview by ASGCA President Robert Trent Jones Jr., who will emphasize the balance between the environment and the golf course with examples from the Spanish Bay and Poppy Hills courses on the Monterey Peninsula.
- Historical perspective of theory by Brian Silva, who will illustrate how the great architects of the past and present have incorporated the natural look into their designs.
- Case histories of Western projects, presented by Robert Muir Graves, who will share his experiences since 1959.
- Case histories of Southeastern United States, with Charles Ankrom, who has used his early experiences in real-estate development into course design projects since founding his firm in 1972.
- How the "natural look" is incorporated into remodeling projects, presented by Jeff Brauer, who will explain

his design approach, which includes sequential procedure and detailed plan preparation.

Golf Course Mechanics Session, a first-ever presentation, and open by pre-registration. Following a welcome from Pat Ryan of Libertyville, Ill., vice president of the Chicagoland Golf Course Mechanics Association, the program will include:

- Keeping up with the times, by John Maguire of Mundelein, Ill., president of the Chicagoland association.
- Birth of an organization, by Tino Martinez of Royal Poinciana Golf Course in Naples, Fla.
- Mechanics association from a superintendent's viewpoint, by Bruce Williams of Bob O'Link Golf Club in Highland Park, Ill.
- Professionalism, by Ed Combost of Lake City (Fla.) Community College.
- Relative height of cut, window for optimum cut, by Rich Smith of The Toro Co. in Minneapolis, Minn.

7 P.M.

**President's Reception (By Invitation)****Monday, Feb. 26**

• Golfers President Edward Connor, speaking on computer analysis for golf course restoration.

• James F. Moore, director of the Green Section's Mid-Continent Region, who will tell how misdirected good intentions can spell trouble.

• B.P. Russell, chairman of the USGA Executive Committee's Public Golf Committee, who will talk on the coming of public golf.

• GCSAA President Dennis D. Lyon of City of Aurora, Colo., Golf Division,

speaking on it's the little things that count.

• Stanley Metzger, superintendent at Country Club of Colorado, who will talk on the professionalization of the golf course superintendent.

• USGA regional directors and agronomists, who will present turf tips.

9 A.M.  
Trade Show Opens (and remains open until 1 p.m.)  
Certification Examination

1 P.M.

**GCSAA Annual Meeting**

6 P.M.

**Banquet Reception**

7 P.M.

Annual Banquet highlighted by the presentation of the Old Tom Morris Award to Sherwood Moore. Entertainment featuring Tony Orlando will top off the dining and dancing, and the conference as well.



# Golf course show shaping up as 'extraordinary' event

This month's 61st International Golf Course Conference and Show (Feb. 19-26) in Orlando, Fla., is expected to shatter all previous attendance and revenue records, according to conference officials.

"Things are going extraordinarily well," said Golf Course Superintendents Association of America Communications Director Pat Jones. "We moved the GCSAA booth around and created another 30,000 square feet to accommodate the extra exhibitors. Registration is way up, especially for our members. We should have a rec-

ord number of superintendents here this year, which is why everyone else is showing up.

"Most of the educational sessions are sold out. The only thing that isn't is the golf tournament. We expanded to five courses this year and we're expecting about 530 golfers."

The show gives attendees the chance to build skills, expand knowledge and keep abreast of the latest in golf course products and services.

"That's why our members come," said Jones. "We hope they will get a very concerted educational opportunity that allows them to be better managers and superintendents. Education is always the emphasis. And this year there is more emphasis than ever on the environment."

The weeklong program kicks off Monday with the first of the one- and two-day seminars. These educational sessions, many of which have been sold out for months, run from 8 a.m. to 5 p.m. and will be held every day through Thursday. All seminars, except the Certification Exam Study Guidelines, offer Continuing Education Units (CEUs).

The back-to-school nature of the conference continues Friday with three morning and three afternoon concurrent educational sessions. The morning sessions are entitled Critically Evaluating Your Needs, Golf Course Management Techniques: Part I and Managing Today's Environment. The afternoon sessions are Golf Course Management Techniques Part II, Southern Turfgrass Management and Water Quality and Distribution. Nationally known experts in those fields will speak every 20 minutes on their area of expertise.

The conference officially begins with Thursday night's opening session and reception at the Peabody Orlando Hotel. Noted author, speaker and business consultant Dr. Ken Blanchard will be the keynote speaker. His "One Minute Manager Library" has sold more than 7 million copies and been translated into more than 20 languages.

Blanchard's talk could help a superintendent gain the type of personal insight to make him a more effective manager. The same is true of Dr. Gayle Carson, a management consultant who presents proven methods for organizing time, and Joe Griffith, an experienced businessman who emphasizes practical communication skills. Carson and Griffith will speak Sunday from 9 to 11:30 a.m.

"Blanchard is a little new," said Jones. "He's a very effective speaker and a good teacher who doesn't bore you to death. In the past we've gone more for the entertainer at the opening session, rather than a person, like Blanchard, who can also help with self-improvement. He's a motivator and we hope he'll set the tone for the

conference."

Other informational programs include Saturday's international roundtable (11 a.m.) and a symposium on sand topdressing and Walt Disney World's commitment to professional horticulture (at 1 p.m. Saturday), and Sunday's government relations open forum (10 a.m.).

Both GCSAA President Dennis D. Lyon and his successor, Gerald Faubel, have stressed the importance of cooperation among the various professional associations that benefit from the golf industry. That's why representatives of other associations will be conducting programs at the superintendents' show.

The Golf Course Builders of America will present "The Golf Course Builders and Turf Management" Saturday from 1 to 4:30 p.m. The American Society of Golf Course Architects and several regional mechanics associations will conduct concurrent programs Sunday from 1 to 4:30 p.m. And the United States Golf Association Green Section Program runs from 8 a.m. to noon on Monday, the conference's final day.

"We approached them (GCSAA) about coming down," said Pat Ryan, vice president of the Chicagoland Golf Course Mechanics Association who is hoping superintendents will encourage their mechanics to form regional associations once they hear the benefits. "They thought it was a great idea. You just can't get an association going without the support of the superintendents."

Saturday morning is the start of the 2-1/2-day trade show with nearly 500 companies signed up to exhibit their products and services. The 350,000-square-foot trade show floor will be open from 9 a.m. to 5 p.m. Saturday and Sunday and 9 a.m. to 1 p.m. Monday.

"It's the major show for the turf industry," said Cushman national sales manager Dan Hedglin, whose company plans to have between 30 and 40 of its own employees plus another 150 dealers at the event. "It gives us the opportunity to visit with the final users of our products and lets us introduce many new products in one setting."

There will also be time for business, like Monday's (Feb. 26) GCSAA annual meeting which, among other things, will see the passing of the president's title from Lyon to Faubel.

Of course if there weren't some time for fun, no one would show up at these conferences. So, in addition to the mind-bending activities already mentioned there will also be the GCSAA Golf Championship on Feb. 19-20; a spouse/children program featuring organized activities and visits to nearby attractions; a merchandise booth where official GCSAA products will be available; and Monday night's concluding banquet and dancing to singer Tony Orlando.

## Mechanics eye support to form nat'l association

### Gone are days of the 'shade tree mechanic'

BY PETER BLAIS

Golf course mechanics are where superintendents were 40 years ago in terms of national organization. But they hope the first-ever mechanics session at this month's International Golf Course Conference and Show will help upgrade their professional standing.

There is no national mechanics organization like the Golf Course Superintendents Association of America.

There are a few regional mechanics groups nationwide, mostly concentrated in the Southeast, and several will combine to put on the 3 1/2-hour mechanics program scheduled to begin at 1 p.m. Sunday, Feb. 25, during the conference.

"There will be a lot of superintendents and mechanics there. We're hoping they'll see what we've accomplished and want to start similar organizations back home," said Pat Ryan, vice president of the Chicagoland Golf Course Mechanics Association.

Ryan, the head mechanic at Bob O'Link Golf Club in Highland Park, was one of a handful of charter members when the Chicagoland association was formed three years ago.

The group has since grown to almost 100 members.

It conducts monthly meetings at which many manufacturers have talked about their new products.

A December seminar attracted more than 300 people, including many superintendents. Superintendents have generally been very supportive of the association's efforts, Ryan said.

"How could they object to anything that helps the golf course industry and makes

their jobs easier?" he asked.

The association's primary mission is to share knowledge on the maintenance of new equipment. That knowledge has taken on increased importance in recent years with the fast-paced change in golf course maintenance technology.

Gone are the days of the "shade mechanic" who was sent out with a screwdriver and adjustable wrench to sit under a tree and tinker with a mower.

Today's mechanic is often responsible for \$500,000 to \$1 million worth of equipment, consisting of a variety of brand names including everything from a two-cycle weed wacker to a \$50,000 gang mower.

"Jacobsen runs workshops and Toro runs workshops and so do the others. But there's no school where you can go and learn how to take care of all types of equipment. So it's important to share knowledge. An association allows that. It's worked real well on the local level," said Ryan.

"It's like the corner garage that you were able to take your car to 20 years ago," Ryan said. "Those guys have all but disappeared as cars have gotten a lot more complicated. Now if you just want a tune-up, you have to take it to a special tune-up shop."

"It's the same way with golf course mechanics. Hydraulic equipment and mowers that cut down to the thousandth-of-an-inch were unheard of 20 years ago. Now they're everywhere. And if you have no education on how to maintain those machines, then you need one in a big hurry."

In fact, it's the relatively inexperienced novice mechanic trying to upgrade his education who may benefit most from an association, according to Ryan.

"We're really trying to reach out to the new guys," he said.

## Featured speakers



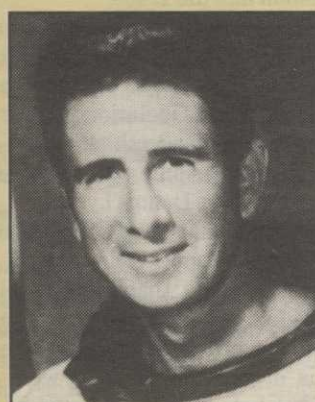
Dr. Ken Blanchard



Joe Griffith



Dr. Gayle Carson



James Irwin

## Busy program prepared for spouses, children

The Orlando Spouse/Children Program boasts an expanded schedule plus a new concept: Optional Activities.

The Basic Program offers minimal organized activities at a minimal cost. Optional Activities offer a "pay more, get more" program for

the entire family.

Some of the offerings include a continental breakfast, trips to Cypress Gardens, Sea World, shopping in Winter Park, Kennedy Space Center, champagne brunch cruise and an arts and crafts exhibit.



# Faubel

*Continued from page 1*

second homes. But there are golf courses on the drawing board in Michigan and Vermont that have been stopped by environmental concerns."

Faubel said he sympathizes with those who sit on environmental boards, especially at the state and local levels. While their intentions are good, most are not trained environmental scientists. And what research is available to them regarding subjects like pesticide use, has usually been done for agriculture, not golf courses.

That information gap is often

also the case at the federal level, he added.

If regulators are to make sound decisions regarding golf course practices, groups like the GCSAA must provide the government with specific, scientific information on the effect golf courses have on the environment, said Faubel. Much of that research will come from the joint GCSAA-United States Golf Association's Research Committee, of which Faubel is a member.

"They (environmental boards) are saying no to things we want to do that would actually help the environment. We need to provide

them with specific information that will allow them to make decisions based on fact rather than emotion," said the new superintendents' association president.

Faubel uses the word "we" frequently when discussing the game's future. The need for cooperation extends to the various associations that benefit from golf — the GCSAA, USGA, National Golf Foundation, Professional Golfers' Association, American Society of Golf Course Architects, Golf Course Builders of America, Club Managers Association of America, National Club Associa-

tion, etc.

"It's the game of golf that's the important thing, not protecting someone's particular turf. In the past, there hasn't always been total cooperation. But we have much better cooperation today than we did five or 10 years ago," said Faubel.

"For example, say you wanted to add a new clubhouse. The bank would probably ask for an environmental audit of the whole course before approving the loan. The new building would affect the superintendent, the head pro, the club manager. So the superintendent

needs to have his operation in top-notch condition or the whole business suffers."

How did Faubel come to the profession?

"Originally I planned to go into agriculture," remembered the Iowa State University graduate who grew up working on Uncle Jess Meyer's Washington, Ill., farm. "But I got a summer job as a night water-man (at Washington's Hillcrest GC just outside of Peoria) while I was in college. That got me interested in becoming a superintendent."

Faubel enrolled in ISU's turf management program. His one-year internship between his junior and senior years at Fond du Lac, Wisc.'s South Hills Club turned into a five-year stint during which he moved up from intern to superintendent while finishing his degree winter semesters.

"I knew I was in the right field almost right away," said Faubel. "I went to a superintendents meeting, looked around and saw a lot of grey hair. People who stayed home from the war (World War II) took care of the courses in those days. A lot of those people were getting ready to retire by the 1960s. A young guy with a college degree in the profession was almost unheard of. I saw a tremendous opportunity here."

After receiving his degree in 1969, Faubel accepted the head superintendent's post at Saginaw Country Club. Little is known about the course's architectural history other than a priest laid out and built the 110-acre facility with a team of mules just before the turn of the century. Faubel has tended the turf there the past 20 years.

"It's a wonderful community," he explained of his decision to stay at the central Michigan club for two decades. "I've been actively involved in the community, doing things like chairing the Parks Commission. The state's nice. The golfing people are nice. It's just a nice place to live."

Much has changed over the past 20 years. Faubel recalls using a scoop shovel to top dress his course. New greens were built with loam dug and mixed on site. All watering was done by hand. That has all changed.

"The technology we can use now is just fabulous," he enthused.

That technology figures to get even more sophisticated as Faubel leads the superintendents' association into the 1990s.

"I'm very honored to think my peers have elected me to this post," he said. "My hope is that I can move the association forward through my leadership."

Faubel had only plaudits for his predecessor, Dennis Lyon.

"Dennis has done a marvelous job," said Faubel. "He brought a lot of talents that were sorely needed. His experience working with government associations and his organizational skills were a great help. He sees the GCSAA

*Continued on page 41*

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## Lyon

*Continued from page 1*

rence, Kan. Bids on the \$4 million project were opened in December and ground broken in January. "It will carry us well into the next century. It was built with growth in mind."

- The climb in membership from 8,000 to 9,000 over the past 12 months. "It shows two things - the strength of golf in the United States and that we as an association provide a valuable service."

- Forging good relationships with the Environmental Protection Agency and federal legislators. Lyon made two trips to Washington, D.C. this year. "The EPA is comfortable coming to us to get our opinions on certain things."

- The certification of the 1,000th member as a Certified Golf Course Superintendent (CGCS). "I've been involved with that since 1983. It's a very valuable program and is well accepted throughout the country."

- Developing a stronger, international relationship with other superintendents' associations. Current vice president Gerald Faubel and secretary/treasurer Stephen G. Cadenelli were very well received at the recent Canadian superintendents' annual conference. Lyon spent 10 days in Japan, meeting with 400 superintendents and laying the groundwork for many to become GCSAA members. An international roundtable discussion is scheduled (Feb. 24) for the Orlando conference and heads of the Canadian, Japanese, Australian, Swedish, British, French and German superintendents' associations are expected to attend.

- Working closely with the GCSAA-United States Golf Association joint Research Committee, which is expected to approve funding research on the environmental impact of golf courses this year. "We need to demonstrate empirically the positive impact of golf courses and dispute the often illogical claims that golf courses are detrimental to the environment."

Since the GCSAA is primarily an educational association, it must continue its seminars and conferences that can help the superintendent to better do his job and enhance his professional status, according to Lyon.

The organization also needs to make the public better aware of the qualifications necessary to be a superintendent. One way it will do so is through a 30-second television spot that will air on ESPN this year.

"We're hoping this will heighten the public's awareness of what it is we do," said Lyon.

Lyon said he has enjoyed working with the board of directors and GCSAA staff and representing the

association at major championships.

His dual responsibilities as GCSAA president and Aurora golf chief have sometimes been stressful and left less time for his wife and four children. So while he will miss the post, he looks forward to getting even more involved with things like coaching his 11-year-old daughter's soccer team which won its league championship this fall under Lyon's guidance.

As for his successor, Gerald Faubel, Lyon said: "Jerry is a very intelligent, articulate individual who is committed to the organization's goals. He'll do an outstanding job as president."

## GCSAA's elections set

Incoming GCSAA President Gerald L. Faubel's fellow officers for 1990-91 will be elected during the GCSAA's annual meeting Feb. 26 at the Orlando conference and show.

Vice presidential candidates are Stephen G. Cadenelli of the Metedeconk National Golf Club in Jackson, N.J., and William R. Roberts of the Lochmoor Club in Grosse Pointe Woods, Mich.

Three candidates for director will be elected for two-year terms. Nominees for director are Joseph G. Baity of Acacia CC in Lyndhurst, Ohio; Charles A. Clark



*Stephen Cadenelli*

of Broadmoor GC in Colorado Springs, Colo.; Cecil C. Johnston, of Avila Golf & CC in Lutz, Fla.; Charles T. Passios, CGCS, of



*William Roberts*

Hyannisport (Mass.) Club in Hyannisport, Mass.; and Randall P. Zidik of Rolling Hills CC in McMurray, Pa

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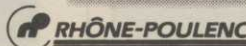
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## Faubel

*Continued from page 40*

becoming an international organization and helped develop closer ties with superintendents in Japan, the Far East, Canada and Europe. He put the emphasis where it was needed."



# GCSAA award winners and presidents

## Distinguished Service Award

1990 — William Bengeyfield  
Dr. Thomas Watschke  
1989 — James W. Brandt  
Dr. C. Richard Skogley  
1988 — Dr. Jack Butler  
William B. Davis  
Dr. Kenyon Payne  
Eberhard Steiniger  
1987 — Dr. James R. Love  
David S. Gourlay Sr.  
1986 — Andrew Bertoni  
John B. Steel

Howard Kaerwer  
Chester Mendenhall  
1985 — James L. Blackledge  
William C. Campbell  
Clifford A. Wagoner  
1984 — Warren A. Bidwell  
Keith Nisbet  
1983 — James B. Moncrief  
Dr. Joseph Troll  
Dr. James R. Watson  
1982 — Milton J. Bauman  
Sherwood A. Moore

Alexander M. Radko  
Ben O. Warren Jr.  
1981 — Geoffrey S. Cornish  
Dr. Ralph Engel  
Hans C. Schmiesser  
1980 — Manuel L. Francis  
Dr. John Madison  
1979 — Dr. C. Reed Funk  
1978 — Dr. Roy L. Goss  
Dr. John C. Harper II  
Arthur A. Snyder  
1977 — Harold W. Stodola  
Paul E. Weiss Sr.  
Robert M. Williams  
1976 — Dr. Joseph M. Duich  
Leo J. Feser  
Thomas C. Mascaro

1975 — Dr. William H. Daniel  
Raymond H. Gerber  
Dr. Fred Grau  
1973 — Walter R. Boysen  
1964 — Theodore Woehrle  
1961 — Dr. Jesse H. De-  
France  
Eugene Marzalf  
James Smith  
1960 — Joseph C. Dey Jr.  
Helen F. Lengfield  
Oyvind J. Noer  
1959 — Dr. John Monteith  
Oyvind J. Noer  
Richard S. Tufts  
1958 — Dr. Glenn Burton

Prof. L.F. Dickinson  
Malcolm R. McLaren  
Prof. H. Burton  
Musser  
Joseph Valentine  
1957 — Thomas Dawson Jr.  
Herbert Graffis  
1954 — Dr. Fred V. Grau  
1952 — Oyvind J. Noer  
1941 — Frank W. Ermer  
William H. Johnson  
1940 — Colonel John Mor-  
ley  
1935 — John MacGregor  
1932 — Colonel John Mor-  
ley

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Mary Medonis  
1988 — Sherwood Moore  
1987 — David E. Hassel  
1986 — David C. Harmon  
1985 — Theodore Woehrle  
1984 — Jerry W. Redden  
1983 — Gordon C. Witte-  
veen  
1982 — Louis E. Miller  
1981 — Paul N. Voykin  
1980 — Donald J. Pakkala  
1979 — Oliver Miles  
1978 — Dan Jones  
1977 — James M. Hilde-  
brand  
1956 — Tom Dawson Jr.

## Old Tom Morris

1990 — Sherwood Moore  
1989 — Chi Chi Rodriguez  
1988 — Gene Sarazen  
1987 — Robert Trent Jones .

1986 — Patty Berg  
1985 — Gerald Ford  
1984 — Bob Hope  
1983 — Arnold Palmer

## Past Presidents

1990 — Gerald Faubel  
1989 — Dennis Lyon  
1988 — John A. Segui  
1987 — Donald Hearn  
1986 — Riley L. Stottern  
1985 — Eugene D. Baston  
1984 — James W. Timmer-  
man  
1983 — Robert W. Osterman  
1982 — James A. Wyllie  
1981 — Michael R. Bavier

1980 — Melvin B. Lucas Jr.  
1979 — Charles H. Tadge  
1978 — George W. Cleaver  
1977 — Theodore Woehrle  
1976 — Richard W. Malpass  
1975 — Palmer Maples Jr.  
1974 — Charles G. Baskin  
1973 — Clifford A. Wagoner  
1972 — Robert V. Mitchell  
1971 — Richard C. Blake  
1970 — Norman W. Kramer  
1969 — John J. Spodnik  
1968 — James W. Brandt  
1967 — Walter R. Boysen  
1966 — Edward Roberts Jr.  
1965 — L.R. Shields  
1964 — David S. Moote  
1963 — Roy W. Nelson  
1962 — Sherwood A. Moore  
1961 — L.E. Lambert  
1960 — James E. Thomas  
1959 — Elmer G. Border  
1958 — Robert M. Williams  
1957 — Paul E. Weiss Sr.  
1956 — A. Ward Cornwell  
1955 — William Beresford  
1954 — Norman C. Johnson  
1953 — Leonard J. Strong  
1952 — Malcolm E. McLaren  
1951 — William H. Johnson  
1950 — Ray H. Gerber  
1949 — Carl A. Bretzlaff  
1948 — Chester Mendenhall  
1946-47 — Marshall Farnha  
1941-45 — Harold Stodola  
1940 — John Gray  
1939 — Frank W. Ermer  
1938 — Joseph Ryan  
1937 — John Quail  
1936 — John Anderson  
1935 — Fred A. Burkhardt  
1934 — W.J. Sansom  
1933 — John MacGregor  
1926-32 — Col. John Morley

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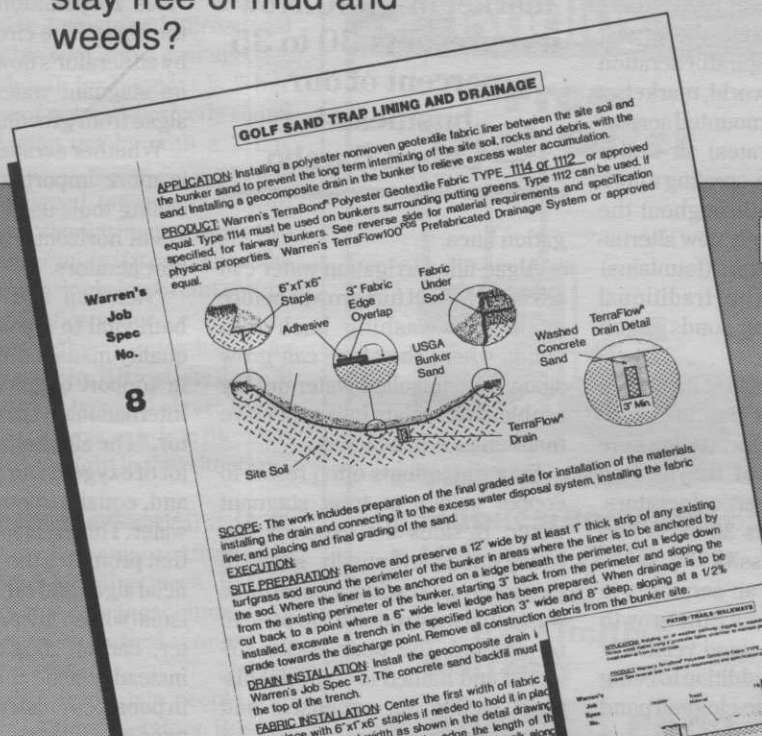
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# Growth in golf industry breathes life into

BY PETER BLAIS

The growth of golf has breathed new life into aeration companies with products designed to keep ponds clear and odor free.

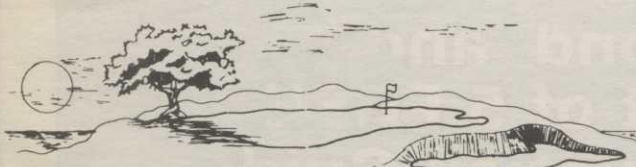
"Although we have tremendous experience with water treatment, we're fairly new to the golf market," said Daniel Durda, co-founder and president of Aeration Industries International, Inc. "But we're approaching the golf-water market this year with an aggressive marketing and advertising program."

"We've been selling aerators to golf courses for several years in response to the industry's need for a proven, effective water restora-



Results of Aeration Industries International Inc.'s circulation dye test after eight minutes (left) and 16 minutes (right).

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tion technology. We're projecting it to be a significant portion of our domestic business in 1990."

Aeration Industries, the largest manufacturer of aspirator aeration equipment in the world, markets a patented, surface-mounted aerator that injects (aspirates) air under the water's surface, creating a horizontal circulation throughout the pond. It is a relatively new alternative to vertical aerators (fountains) and chemicals, the traditional methods of treating ponds at golf courses.

"We got into the golf market in 1980," said Chuck Barebo, president of Barebo, Inc. (Otterbine trademark), one of the leading manufacturers of vertical aerators. "Now it represents 30 to 35 percent of our business."

The purpose of an aerator is to add oxygen and reduce the growth of algae that can cloud relatively stagnant water. In addition to being an eyesore, an algae-clogged pond often has an offensive smell. And when used for irrigation, the algae-containing water can clog filters, valves and screens, fouling sprinkler heads and choking irri-

**'We got into the golf market in 1980. Now it represents 30 to 35 percent of our business.'**  
— Chuck Barebo

gation lines.

Algae-filled irrigation water can adversely affect turf growth before eventually washing back into ponds where the algae can grow again. Uncontrolled water-quality problems translate into expensive maintenance headaches.

Superintendents often resort to copper sulfate to treat stagnant water. Besides the expense, the heavy metal eventually sinks to the bottom, creating a hazardous waste that may require the pond to be drained, the toxic waste collected and hauled to a special disposal facility, an expensive and time-consuming process. Dead algae also sinks to the bottom, providing a fertile environment for new algae to bloom.

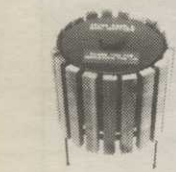
Manufacturers tout aerators as

a natural alternative to such chemical treatment. The oxygen energizes zooplankton that feeds on the algae. The circulation created by an aerator's flow pattern breaks up stagnant water and prevents algae from growing back.

Whether aeration or circulation is more important is one of the selling tools used by manufacturers of horizontal flow and vertical flow aerators.

"Aeration and circulation are both vital to a pond's total water-quality management," said Durda in support of Aeration Industries International's horizontal flow aerator. "The algae already produces a lot of oxygen. Our product aerates and, equally important, circulates water. This creates an environment that promotes the growth of beneficial algae and other micro-organisms whose by-products are water, carbon dioxide and oxygen instead of toxic chemicals present in poorly circulated ponds. Lack of proper circulation encourages adverse algae growth that results in unsightly, floating mats of organics that die, producing by-products like hydrogen sulfide 'rotten

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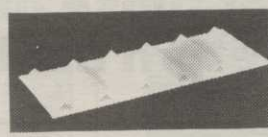
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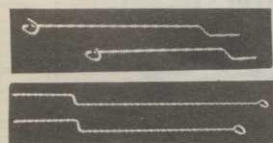
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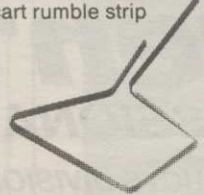
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"Fountains have a place. They are pretty and they aerate some. But they are designed to throw water up in the air versus mixing the entire water volume from below the surface. Thus, they cannot mechanically circulate water effectively."

Countered Barebo: "Each has its advantages and disadvantages. Ponds of five acres or less and a depth of four to 15 feet are effective places for our floating surface aerators."

"If you have a long, rectangular pond and you don't want any type of display hardware, then a horizontal aerator might be better."

Steve Brown, president of Airlake Aeration, Inc., sees a need for both, often in conjunction with one another.

"Put a 2-horsepower fountain in a three-acre pond, and you don't have a chance. But add another piece of equipment to get the water circulating and it will work," said Brown, who was director of golf division sales for Aeration Industries International before opening his own firm a year ago.

The rule-of-thumb for aerators is 2 h.p. per surface acre of water. A perfectly round one-acre pond may get by with a 2 h.p. machine.

An irregular-shaped, one-acre pond with many nooks and crannies may require two aeration devices, or more if it contains effluent water, an increasingly important source of golf course irrigation water.

"Anyone using effluent water has a big nutrient load coming in. If it just sits there, it will grow the wrong types of algae. It also has an odor that can permeate into the air. A fountain wouldn't be right in that situation," said Brown.

It's interesting that both vertical and horizontal flow type aerators emerged from technologies invented for other uses. Barebo bought his firm from an aquaculture company that marketed its vertical aerators primarily to fish growers.

"There are a lot of fountain people who are calling their products aerators. But you have to look at their primary and secondary circulation rates and their oxygen transfer rates," said Barebo.

The Pennsylvania floating surface aera-

**'Anyone using effluent water has a big nutrient load coming in. If it just sits there, it will grow the wrong types of algae.'**

— Steve Brown

tor manufacturer boasts primary pumping rates of up to 3,000 gallons per minute, secondary circulation rates up to 30,000 gallons per minute, and oxygen transfer rates of 2.2 to 3.0 pounds per horsepower.

Horizontal golf course aerators manufactured by Aeration Industries International are small (1 to 5 h.p.) compared to larger aeration systems (up to 100 h.p.) the Minnesota-based firm has used worldwide since the early 1970s to solve wastewater prob-

lems, increase aquaculture production and restore rivers and harbors. The golf course units are based on the same technology, although they only weigh about 65 pounds and generally run 2-by-4 feet in size.

Horizontal aerators are not particularly attractive compared to their vertical counterparts. Both Aeration Industries International and Airlake offer decorative fiberglass covers resembling boulders to camouflage their units.

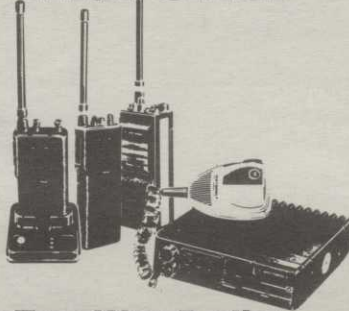
"Some golf course superintendents operate the aerators without any decorative covers," said Durda. "We offer several options for the more aesthetically concerned golf course superintendent."

Aerator costs vary. Brown prices his horizontal unit at \$2,500. Vertical models run from \$1,500 to \$15,000, he said. Diffused air systems, an oxygen-carrying gridwork of pipes and disks laid out on the bottom of a pond, range from \$3,000 to \$15,000.

On price, Durda said his company's horizontal flow type units "are very competitive in the marketplace, options and all. But, more importantly, they eliminate golf course maintenance headaches and water-quality problems."

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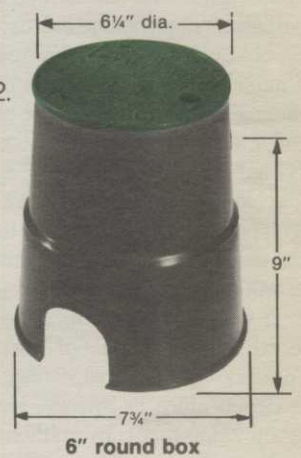
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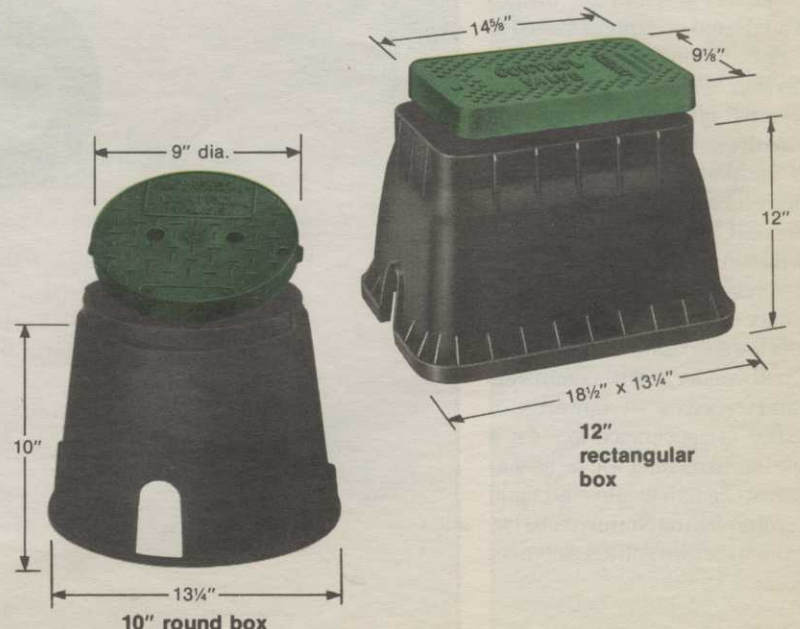
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# New course boom 'up and over'

BY BRADLEY S. KLEIN

The international golf boom has reached Down Under.

Australia, which already sports one of the world's highest per-capita rates of golf courses, is rapidly expanding its offering of venues. The continued growth of golf is exercising a dramatic effect on the overall character of golf course construction and maintenance techniques.

Australia's proximity to the Japanese market assures a regular supply of wealthy, golf-starved travelers. The abundance of land in so unsettled a country has led to a veritable land grab along the more attractive coastal areas north of Sydney and in Queensland.

Small wonder that a number of well-placed superintendents of long standing are moving into the design business.

Forty-four-year-old Peter Williams, who had spent 29 years on the greens staff at Royal Melbourne, half of them as its chief superintendent, recently left to work the international design firm of Marsh-Watson Ltd. Australian golf star Graham Marsh and his associate, Ross Watson, have offices in Perth, Western Australia, and on the Gold Coast, Queensland.

Their company is now working on 12 Japanese courses, with three of them under construction. They have begun turning earth on the Coral Sea island of New Caledonia, one thousand miles east of Australia's Great Barrier Reef. Back home, they have just finished the 27-hole Vines complex in Perth and have four others underway throughout the continent.

Former Australian Open champion Jack Newton has also formed a design partnership, this one with two of the Sandbelt's more renowned superintendents — John Spencer of Huntingdale Golf Course (home of the Australian Masters) and Graham Grant of Kingston Heath.

Greg Norman is the latest Australian golf pro to turn his attention to course design. Designs under his name will actually be done in conjunction with Bob Harrison, a designer who now works out of Mark McCormack's International Management Group office in Sydney. He does the drafting, then converts them via computer-graphics into images that are faxed or express-mailed to the globe-trotting Norman for his inspection.

Norman is a golfing star of immense drawing power in Australia. Golf tournament promoter David Inglis, who engineered the 1988 Bicentennial Classic at Royal Melbourne and now runs the Johnny Walker Classic, claims that Norman's mere presence in a tournament field guarantees the success of that event.

Small wonder that he commands — and receives — upwards of \$125,000 in appearance fee for a single tournament. It will be no surprise that clients have already begun lining up to sign on Norman and Harrison for their own golf development projects.

## Greenskeepers 'Down Under'

The professional coordination of greenskeepers is in its infancy. About

**The professional coordination of greenskeepers is in its infancy. About half of all practicing superintendents have joined the newly formed Australian Golf Course Superintendents Association.**

half of all practicing superintendents have joined the newly formed Australian Golf Course Superintendents Association. It lacks an independent office or publication, but several pages of each issue of *Turf Craft Australia* are devoted to news of the association.

As explained by John Odell, the superintendent at Royal Sydney and

president of the New South Wales GCSA, the profession is beginning to upgrade its training techniques and incorporating, on a scientific basis, the accumulated insights of the industry as developed and codified in the rest of the golf world.

Odell is one of the industry's new breed; like Garry Dempsey at New South Wales Golf Course or Martin

Rose at Royal Canberra Golf Course, Odell combines extensive on-site experience with a rigorous program of formal academic training.

The result is a whole new generation of greenskeepers with the training to use sophisticated chemicals and the ability, as well, to explain the details of filtration, agronomy and biochemistry whenever the local greens committee has questions.

A good example is Dempsey's work at New South Wales GC, where a course ranked among the world's top 100 has never had pesticides applied to its fairways.

The scientific use of modern

chemicals is part of a larger phenomenon that has indelibly altered the face of Australian golf. The process might be called the modernization of the game. Here is a sports culture in which the most exclusive and expensive courses charge no more than \$2,000 to join. Membership at most courses can be had for a few hundred dollars — and this for golf around the year.

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# for designers Down Under

A lot of money is going into development of the game and the changes have begun to affect the character of play and maintenance at the most staid and traditional clubs. The glitzy clubhouses, the availability of motorized carts, the manicured, all-green look of these new facilities. When members at traditional venues return from their visits to the Gold Coast or to the Murray River resorts along the border of Victoria and New South Wales, the inclination is to ask why these conditions cannot be reproduced at home.

The answer, of course, is money. To emulate these standards a whole

new set of considerations enter into the picture. In many clubs, serious in-house debates concern the propriety of moving along to adopt these modern elements—if not cart paths, then at least better grooming.

Not every innovation has caught on, however. Two courses 70 miles south of Melbourne at Cape Schanck, designed by Robert Trent Jones Jr., opened up in 1987 with much fanfare. They were located on a stunning site of mountainous dunes, with the Tasman Sea on one side and Port Phillip Bay on the other.

Critics say many holes are over-designed and artificial, and the course

is so demanding that rounds take well over five hours—in a country where the native foursomes average just over three hours. The course virtually requires a motorized cart given the severity of the terrain.

The result is that the municipal course at Cape Schanck is underplayed and the private course under-subscribed for membership. The hope now is to bring in a private resort developer who would use the golf course as the focal point of an exclusive corporate retreat.

Cape Schanck is an exaggerated example of what happens as Australia modernizes. The more encourag-

ing signs are that techniques of course maintenance have reached new heights of sophistication.

It remains to be seen whether the newer resort courses going up along the coast will continue exercising their effects on the rest of Australia, or whether the abiding force of British golf club traditions will hold their own and preserve the classical traditions of simplicity and quaintness that so distinguish golf in the (former) British empire from golf elsewhere.

*Bradley S. Klein, who lives in Bloomfield, Conn., recently spent 10 weeks "Down Under."*

## MacKenzie to Norman, Australia's on golf map

As a former British penal colony first settled in 1788, the island continent of Australia has always had the fate of its sports culture shaped by foreign influences. Golf took hold in the early 19th century, but not until the visit of legendary Scottish-born architect Dr. Alister MacKenzie in 1928 did modern principles of strategic course design find a place.

Until then, home-bred architects had fashioned rough-hewn courses following strictly penal principles, or, in many cases, no aesthetic principles at all.

Recruited by Royal Melbourne for the princely sum of \$1,000, MacKenzie supplemented his fee by picking up local work for \$250. He lent his acumen on a piecemeal basis to varying degrees. Though credited with New South Wales Golf Course, for instance, MacKenzie made cosmetic changes there to the design drafted by the popular Australian pro Des Soutar.

He added only light touches to Royal Sydney and The Australian, but both courses have recently been so compromised that nothing remains of MacKenzie's work. At Kingston Heath in Melbourne's Sandbelt, he created what remains today some of the most imaginative bunkering shapes in the world. And at Flinders Golf Course, south of Melbourne on the Mornington Peninsula, MacKenzie rather hastily laid out a sea-side venue that is eerily similar to Pebble Beach.

But it was the West Course at Royal Melbourne to which MacKenzie devoted himself wholeheartedly. The club had acquired several plots of land and asked MacKenzie to expedite a shift of grounds that would incorporate several old holes into basically a new course. The good doctor obliged with a plan that cleverly left intact several old cross bunkers and mounds along the 14th and 15th holes. But the larger genius of the new venue was to create massive rolling putting surfaces and strategically placed bunkers that made the holes enjoyable by golfers of every caliber.

Strangely enough, MacKenzie never saw the finished product at Royal Melbourne. Indeed, he never turned a spade of dirt on the course. Travel plans required that he leave before funding for construction could be secured. By the time the club recovered from the effects of the

*Continued on page 48*

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# \$1-billion resort planned in 'sensitive' Fla. area

BY PETER BLAIS

A major resort complex that will feature six signature golf courses is being planned for an environmentally "sensitive" portion of Florida's Osceola and Polk counties.

The \$1 billion project is known as Johnson Island and is located on 8,500 acres 17 miles south of Walt Disney World. In addition to the signature courses, plans call for an equity membership course, par 3 executive course, two-year accredited Golf Academy, multi-training pod facility, 1,500-room hotel and conference center, retail shopping area, marina and retirement village to be built in three

phases over 15 years.

Developer Louis Fischer, chairman of Fischer Associates Inc. of South Miami and Kissimmee, hopes to have all necessary permits in hand by the end of the year and the first course in operation by early 1992.

But there are several environmental hoops through which Fischer must jump before the project becomes reality.

The Johnson Island area is home to many forms of wildlife, including two endangered species - the Southern bald eagle and the American wood stork. This has raised concerns with local officials and

several environmental groups, among them the Audubon Society and Sierra Club.

"It's a beautiful piece of property. And a lot of people are saying it's one of the best proposed developments they've ever seen," said Fischer, who is hoping to allay those fears by developing just 32 percent of the total parcel. He may also sell some of the environmentally-sensitive land to other developers who would preserve it in exchange for being able to develop wetlands elsewhere as state law allows.

"It has some potential," commented Jack Shannin, development director of Osceola County. "It's

the first project I've seen with that much open space. They've done a good job of looking out for the environment.

"I don't see the golf courses as a problem, but the size of the whole project. It's a rural area, but there's no real infrastructure out there. He might have to cut back some."

Fischer applied in December for a regional development review with the East Central Florida Regional Planning Council and the Central Florida Regional Development Council. Because of its size, the project is considered a Development of Regional Impact, and must be reviewed by the two councils to

determine its effect on local community services.

There are also a number of local, state and federal permits needed before construction can begin. Fischer said he plans to begin the permit application process in March and hopes to have final approval from the counties by December.

That would allow him to begin the first phase, which would include two golf courses and 500 hotel rooms. The first course should open 12 to 15 months later. Fischer foresees all six courses eventually beginning and ending next to a common clubhouse.

## Australia

*Continued from page 47*

worldwide economic depression, it was 1931.

The building of the course was left entirely to Royal Melbourne's greens superintendent, Claude Crockford; the execution of MacKenzie's plan was handed over to former Australian Open golf champion Alex Russell. Thus Crockford and Russell actually worked the land that became the two courses at Royal Melbourne. They followed MacKenzie's plan on the West Course, Russell's on the East.

Most of Australia's courses were designed by native golfers turned architects. Besides Russell and Soutar, Sydney-based pro James H. Scott was among Australia's busiest.

In the mid-1960s, the great Australian golfer Peter Thomson joined forces with Michael Wolveridge to create perhaps the most notable of all local design firms. Their work brought them not only many jobs in Australia but throughout Asia as well.

## Aerators

*Continued from page 33*  
three to five years."

Gillen added that greenkeepers have compounded their problems with sand topdressing over the last 25 to 30 years, so that now they have to get down through those layers of the topdressing, or rebuild the green. He said that sand topdressing, if it is not high-grade sand that is similar in particle size, creates an area that inhibits water movement.

"This is why the universities are saying that unless you get in and deep-aerify you'll have to rebuild your greens or suffer with what you've got," he said. "And there's probably only 10 percent of courses that can afford to rebuild their greens."

## Penn show set

The Western Pennsylvania Turf Conference and Trade Show will be held Feb. 20-22 at the Pittsburgh Expo Mart/Radisson Hotel in Monroeville, Pa.

Co-sponsored by the Pennsylvania Turf Council and Pennsylvania State University, it offers sessions on pesticide regulation and use, turf diseases and more.

Interested people may contact the Pennsylvania Turf Council, P.O. Box 417, Bellefonte, Pa.

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# What's prettier: A dump or golf course?

**With premier land harder to find, some turn to landfills**

BY PETER BLAIS

Richard DeYoung was looking out his office window one recent November day. Several multi-story office buildings and a number of condominium complexes stared back. Smack in the middle of all this mortar and brick was an 80-acre landfill.

"What a great place for a golf course," said the regional landfill manager of Waste Management of Illinois'. "All it would take is a little innovation."

With undeveloped land becoming rarer and increasingly expensive, more and more forward-thinking people are beginning to see a useful and profitable future for the nation's growing numbers of abandoned dumps.

"More and more nowadays we're having to deal with things we've never had to deal with before, because premier, easy-to-build-on land is now taken by houses. What is left is what the golf course is allowed to go on. So we're usually left with a swamp, a hole or a landfill. A golf course is used to cover up a lot of blemishes. We haven't quite gotten into putting golf courses on toxic waste dumps, but it's something that would be an added amenity," said Golf Course Builders of America President Perry Dye.

Waste Management (which incidentally doesn't own the landfill outside DeYoung's Westchester, Ill., window) opened nine holes over a reclaimed landfill last year in Batavia, Ill., about 30 miles west of Chicago. A second nine is scheduled to open next year and plans call for the course to expand to 27 holes in the not-too-distant future.

The company is negotiating a contract with the owners of a Techny, Ill., landfill where Waste Management hopes to build a nine-hole course after the dump closes in the spring of 1992.

Building a golf course over a landfill has several advantages.

First it helps return land to a profitable use.

"The waste industry has been slapped around for taking valuable property out of use and then abandoning it. Building a golf course can change that," said DeYoung.

A second advantage is the chance to turn an actual financial profit on land nobody wants. DeYoung figures it will take five years for the proposed Techny course to make money. Whether it builds a course or not, Waste Management is required to maintain the closed landfill for 30 years. What this boils down to for Waste Management is spending money for 30 years or making money after five.

"And we'll be giving something back to the community. People liv-

ing near a landfill usually complain it drives property values down. We understand that. A new golf course would help property values appreciate," said DeYoung.

A third advantage is that landfill land is relatively cheap compared to prime, undeveloped land and requires little if any clearing. The 160 acres of reclaimed municipal landfill that became California's Santa Clara Golf and Tennis Club in 1986 was free, according to project manager Damian Pascuzzo, a senior associate with the Robert Muir Graves Golf Course Architects.

**'The waste industry has been slapped around for taking valuable property out of use and then abandoning it. Building a golf course can change that.'**  
— Richard DeYoung.

"You can't buy one acre of land out here today for less than \$100,000," Pascuzzo said.

But there are disadvantages to building over a dump site.

One of the biggest is figuring out what to do with the methane gas formed by decaying, sub-

face garbage. Methane is lighter than air, so it can rise to the surface, where it will kill any grass. It is also explosive if exposed to heat.

USGA Green Section National Director William Bengeyfield tells a story of his days as director of grounds and maintenance at In-

dustrial Hills Golf Club, which was built over a California landfill in the late 1970s.

The grass on the 17th green of the Eisenhower course was growing poorly, so one of Bengeyfield's workers decided to dig down a few inches with a post-hole digger to see if he could discover the problem. After digging the hole, the worker lit a match to look inside.

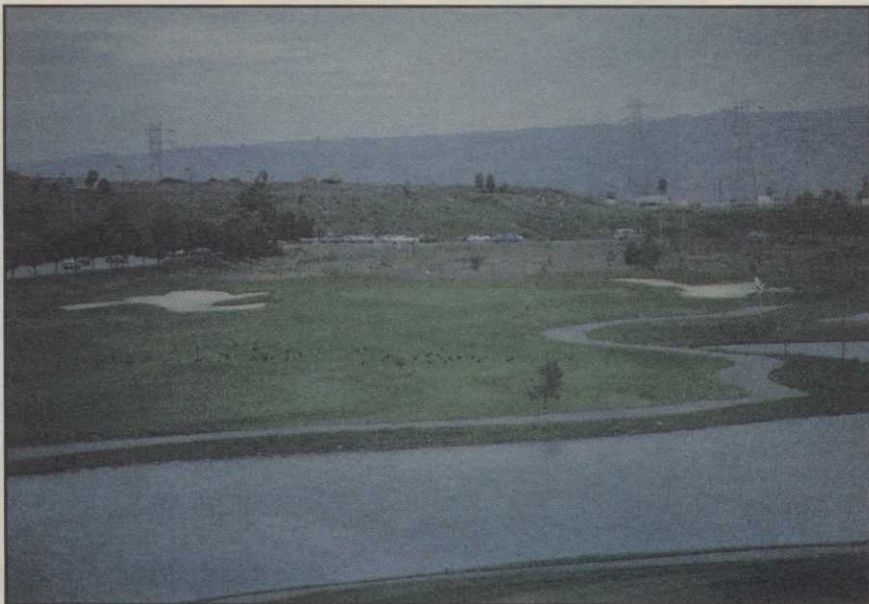
"We had our own little eternal flame in the middle of the 17th green," said Bengeyfield. "We were lucky we were able to put it out in just five minutes. If you get a

*Continued on page 51*





Golf course architect Robert Muir Graves designed this course on 160 acres of reclaimed municipal landfill in Santa Clara, Calif. The land was free. It is now the Santa Clara Golf and Tennis Club.



## Landfill courses

*Continued from page 50*

large fire going underground, I understand you may never be able to put it out."

Industry Hills installed a methane collector and used the captured gas to heat the hotel and clubhouse during the gasoline shortage of the late 1970s and early 1980s, according to Bengeyfield.

Methane collection systems are standard equipment now in landfill courses, said DeYoung. But they are expensive.

"There are a multitude of lines going into the ground. It can be as elaborate as a sprinkler system

and cost as much as \$1 million on an 18-hole course," said DeYoung.

Then there is the matter of settlement. As the garbage decays and shifts under the ground, so does the land lying above it. Bengeyfield said Industry Hills had to replace a handful of greens within the first three years.

"You have to think of things like 'What are we going to do if this part of the course suddenly sinks five feet?' We've been lucky, though. We expected more problems than we've had at Batavia," said DeYoung.

At Santa Clara, flexible High-Density Polyethylene pipe was laid over most of the course to avoid breakage when parts of the course settled.

"It even hugged the mounds we made for trees perfectly," noted Pascuzzo. "And it's priced fairly competitively with regular PVC pipe. We were able to use it down to two inches in diameter."

There are also state laws stipulating the amount of soil cover over certain portions of a landfill. The cover is necessary to maintain the integrity of the clay cap placed over most closed landfills. Irrigation pipe can't be laid unless more cover is added, an additional expense.

Half of the Santa Clara course was placed over a new part of the landfill and half over an older part.

**Methane collection systems are standard equipment now in landfill courses. As elaborate as a sprinkler system, they can cost as much as \$1 million on an 18-hole course.**

The new part was mounded and drained well, explained Pascuzzo. Not so the older part where the original fill varied from one to six feet in depth. Contractors used heavy equipment to actually reconfigure the garbage into slopes and valleys before recovering it with a new clay cap.

The city appealed to area contractors to bring in their extra fill to bring the topsoil cover up to code.

"The city just had to pay to truck it in. We were able to get it for about \$3 a yard compared to the \$10 to \$15 it would normally cost," said Pascuzzo.

"And it's tough to have water holes over a landfill," added DeYoung. "At Batavia we were able to put some water on land adjacent to the landfill. At Techny that would be difficult. So there will be more sand traps."

But despite the difficulties, experts look for more courses to be built over landfills as open land becomes more scarce and more landfills are forced to close.

"It will definitely happen more often," said DeYoung. "We all want to find a use for that property."

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# Maintaining Tour's most difficult hole

BY FRANK POLLARD

Spectacularly molded along the cliffs of the Pacific Ocean, Pebble Beach is a master challenge not only to the golfer but its groundskeepers as well.

The annual listing, "The Toughest Holes on the PGA Tour," based upon hole-by-hole shot-making statistics kept on each venue visited during the PGA schedule takes annual note that Pebble Beach tests, and even intimidates, the golfer.

The latest report lists Pebble Beach's 8th hole as the most difficult on the Tour and the 9th as the fourth toughest. Also making the top 100 are the 10th, 12th and 14th holes on

the links course where craggy cliffsides border fairways.

It's been often stated that the 8th hole at Pebble Beach begins a stretch of three consecutive par-fours (holes 8, 9 and 10) unmatched anywhere for their pure difficulty — and magnificence.

While golfers test their own mettle playing Pebble Beach, Larry Norman must daily face the challenge of keeping the course in top shape.

And Norman, the golf course superintendent, makes it clear that "maintenance practices are not geared to make holes easier or harder here at Pebble. We could draw the rough long, speed up the greens, narrow the fairways or make the greens excessively hard and fast. But that is not our intent and we would never do that."

"Our practices are simply to give the players — pros and amateurs alike — a very fair playing surface."

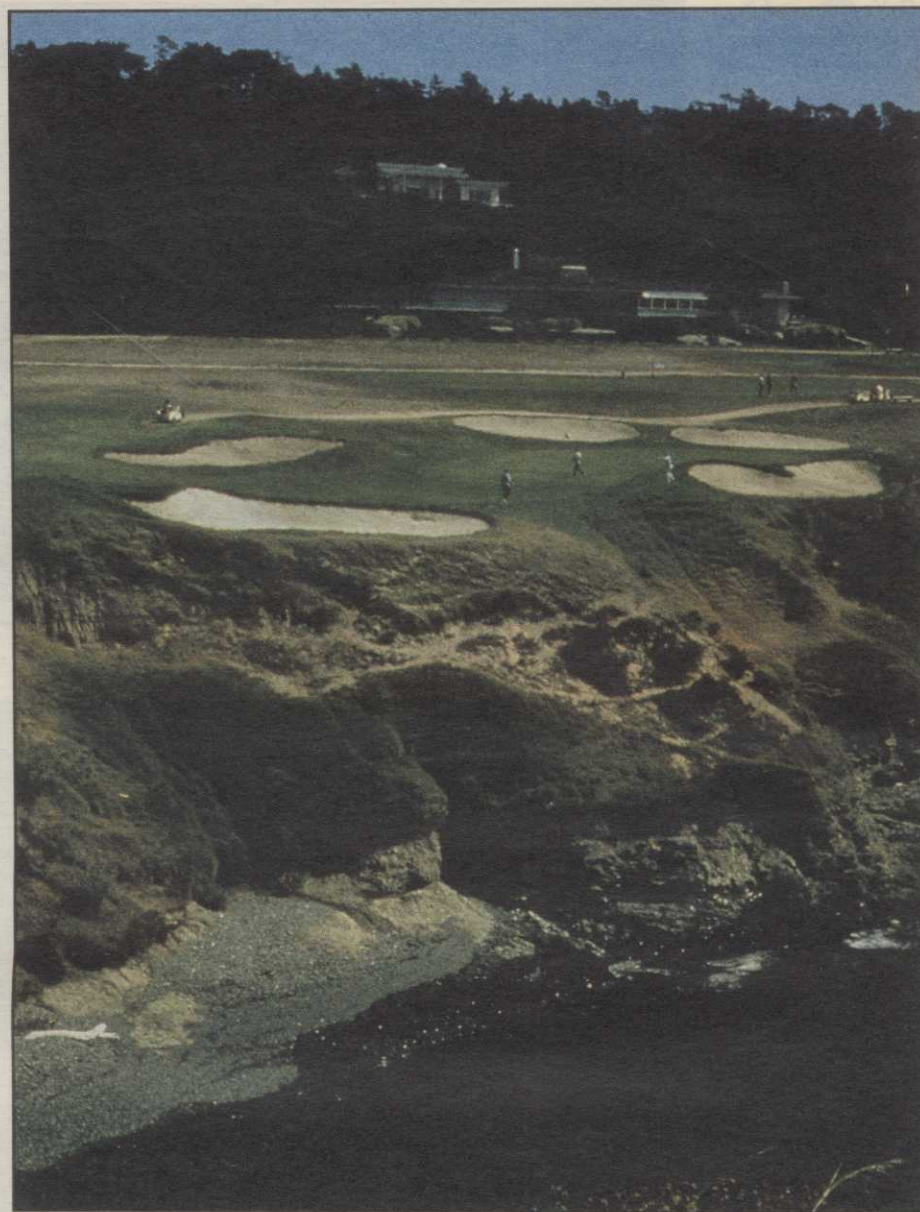
He adds: "The golf course speaks for itself. All the credit for those tough holes has to go to the course designers who maintained the natural setting, built small greens well protected by bunkers and mounds, and rewarded not only distance but extreme accuracy and short game skill."

What's interesting is that with the whims of the weather on the Monterey Peninsula, particularly in the winter months (rain, high winds and occasional sleet and snow) when the AT&T Pebble Beach Pro-Am is held, one might believe that playing conditions were a major factor in the toughness of the holes.

Not so. When the latest statistics were amassed, the weather, according to the record, was "near perfect every day."

Says Norman: "This is a coastal bluff golf course and the winds do come up and are a factor in play, making Pebble Beach play up to its designed potential. The PGA Tour has its specifications and we do our best to meet those specifications. We set the course up agronomically the way they want it and maintain consistency of tees, greens and fairways throughout the course."

"In fact, we keep the course in the best



Pebble Beach's 8th hole: The toughest on the PGA Tour, and a challenge to maintain.

condition we can on a day-to-day basis, which is very nearly up to Tour standards."

Surprisingly, Pebble Beach is still a public golf course and people from all over the world come to walk in the footsteps of the greats past and present. And what more fun than to tackle some of the toughest holes in golf and put a par on the scorecard where even some of the pros couldn't.

## Hole number 8

The par-4 8th is 431 yards with a blind tee

shot to a flat cliff-top plateau with a cliff dropping off abruptly along the right side of the fairway. A good drive (one might want to use a 2-iron or 4-wood if they are long hitters to prevent driving through the fairway) places the golfer in a position to go for the green from the top of a cliff plunging some 150 feet into an oceanic chasm.

Jack Nicklaus calls it the greatest second shot in golf with a long to medium iron across the awesome water-filled chasm to a tiny green edging it and guarded by five large bunkers. The green is perhaps the fastest on the course and is inclined toward the sea. In strong winds coming off the sea, it is very nearly impossible to get on this green in two.

## Hole number 9

This hole has been called by many Tour professionals the toughest par-4 in golf. At 464 yards, the downhill fairway slopes in its length to the right toward the sea, with 30-foot cliffs over which a pushed tee shot will put the golfer on the beach or in the water, depending on the tide. Bunkers guard the high side of the fairway, leaving a tight landing area for the drive. A long, very difficult second shot must thread its way between a barranca with a formidable bunker and the cliff to a small green with cliffs adjacent to and behind it. Shots going through the green can easily make their way to the beach below.

Even while facing such stiff challenges, the golfer has to face the distraction of the magnificent views.

It's reported that a visiting Scottish golfer of some on-course prowess once stated he could not play Pebble Beach. "It's too dommed beautiful," he said. "I can't keep my mind on the game."

Frank Pollard is a freelance writer based in Hollister, Calif.

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## Landmark developing first course in northern U.S.

Landmark Land Co. is getting involved in its first northern U.S. course at Petoskey, Mich.'s Three Fires resort complex, according to the Detroit News.

Three Fires is an 1,100-acre property, including 5-1/2 miles along Lake Michigan, being developed by Southfield developers Larry LoPatin and Daniel Holloway.

Included in the project is a 27-hole golf course scheduled to open in the spring of 1992.

According to the Detroit News, it is believed that Landmark Vice President and Charlevoix, Mich. native Chuck Fairbanks was influential in his company's decision to venture out of the warmer climes, where it

has developed such well-known facilities as PGA West and LaQuinta in Palm Springs, Calif. Oak Tree in Edmond, Okla. and Palm Beach Polo and Country Club in Florida.

Before getting into the real estate development business, Fairbanks was head coach of the National Football League New England Patriots, the defunct United States Football League's New Jersey Generals and the University of Colorado.

Michigan's golf boom also had a lot to do with the Landmark decision.

The state has more public courses than any state in the country and is among the leaders in number of players, frequency of play and number of courses.

## Westchester in LA closing holes for changes

Parts of the Westchester Golf Course adjacent to Los Angeles International Airport will be closed for portions of the next two years while renovations are being done.

A fully automated sprinkler system, modern clubhouse and redesigning of several holes means nine of the 18 holes will close for up to two years and the driving range for two months.

The \$3.5-million facelift will eventually result in longer holes on the executive course, a larger pro shop and better lighting for nighttime play.

## Washington

*Continued from page 19*

tion in the nearby Pasayten Wilderness, completion and approval of ski hill and resort village master plans, along with state and county approvals.

Since the golf course site is on private land, the court battles thus far may have impact only if the developers tie the golf to the skiing, or if there is a land swap between the developer and the Forest Service.

There is a small National Forest Campground next to the course site which the developers have considered as an entry to the course. A trade may be considered wherein private land owned by Early Winter would be traded for the campground. Federal lands equal Supreme Court requirements.

On its own, the golf course still has to be led through a maze of permitting by federal, state and local agencies before construction can begin.

MRI's Devin is confident Graves is the architect to get the job done. Graves is familiar with the Northwest and has produced The Resort at Port Ludlow (Wash.) and Black Butte Ranch (Oregon) courses, both perennial "Top 100" courses in golf magazine rankings. He last year completed a new course, Meadowood, for Spokane County, Washington.

Graves has a reputation for being a particularly conscientious environmental planner when it comes to course design and construction.

The developers of Early Winters are optimistic that Graves will find the answers to the environmental problems.

Through what might have been a public relations faux-pas, the golf aspect of the resort was not publicized until a year or so ago. The project was referred to locally and in the Seattle and Spokane media as "The Ski Hill."

With the increased prominence of golf as a major recreation, MRI began to give it more emphasis. Many opponents of the ski hill and base village are hearing for the first time that golf is in the future, too, and they don't like it.

"It's bad enough to have an 18-hole course up there," said one, "but putting in 36 holes is a slap in the face."

The major concern seems to be for the aquifer—the quality and quantity of water.

"I'm delighted," said another. "I hope they give the locals a special deal to join. Otherwise, we won't be able to afford it."

Officially, Devin is hopeful that construction of the first 18-hole course will begin late this summer.

He's being noncommittal, however. Nobody knows better than he that any timetable will be determined by the level of opposition.

*Bob Spiwak is a freelance writer and photographer who lives in Mazama, Wash.*

## Pleasure Island eyed for championship course

Pleasure Island located adjacent to the eastern Texas city of Port Arthur would be a good location for a championship golf course, according to Jim Hardy of Golf Services Group of Houston.

Hardy made his suggestion at a November joint meeting of the City Council and island commission. The two groups hired Golf Services to do a feasibility study on the possibility of building a golf course to stimulate the island's economy.

"High-quality golf is the current, primary, large-scale real-estate and economic development tool employed throughout the United States," Hardy was quoted in the Beaumont Enterprise.

Hardy recommended building a championship, daily-fee course, something he said is unavailable in the Port Arthur-Beaumont area.

An eight-member committee of councilors and island commissioners was appointed to further study the proposal.

## "Toe the Mark" with ADJA Turf-Guide



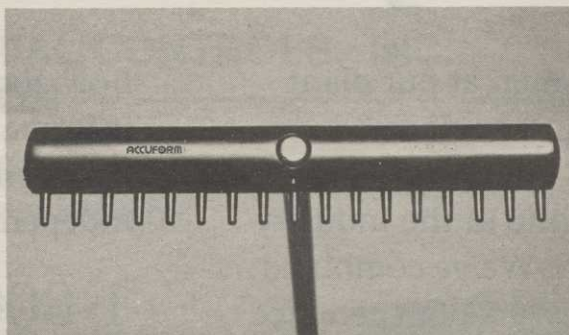
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## On the Green

Continued from page 70

intendents and kept up on the latest research in the field.

He double-verticuts every three weeks, then applies about one-eighth a yard of sand per thousand feet of green. The sand is the same as what was used to build the green.

He cuts at 5/32 inch, using Toro groomers. To feed the healthy turf, 1/10th pound per 1,000 feet of nitrogen and potassium is applied weekly, and trace minerals are added as determined by continual soil testing.

Greens are aerated twice a year. In September a hollow-tined aerator is used, and the cores are then worked back into the turf. In the spring, when play is heavier, the grounds crew punches the putting surface with quarter-inch solid tines. Maximum irrigation is one inch per week on the sand-based greens.

Becker is convinced that "spoon feeding" of nitrogen is a vital combination of controlling bentgrass growth and, with lower nitrogen content, discouraging the growth of poa. Applying potassium in amounts equal to that of nitrogen gives the turf rigidity and improved resistance to disease. This again minimizes the opportunities for invasion of poa.

Becker said, "The person who developed the spoon-feeding concept should get a medal."

Daily, the superintendent checks for scalping of repair or hole-change plugs. If one is scalped, it is replaced with a healthy one. Where undulations have been scalped — a rare occurrence because of the top-dressing program — they are top-dressed and watched carefully.

"Using the groomers allows the greens to be cut at 5/32 instead of one-eighth and we get the same speed — about 8.5 to 9 on the stimp meter," said Becker. He is happy with this, considering twice-a-year aeration that keeps the greens "pretty soft."

To prevent outer-pass tracking with the riding mowers, which can wear down turf and leave a vulnerable area, the outside cut is moved in six to eight inches twice a week.

Any poa that does appear is immediately removed with cup cutters or a knife, then replaced with Penncross plugs. So far, Becker has not used any chemicals for poa prevention on the greens, although he uses Scott's TGR on the fringes and tee boxes, which are Bristol vieta merit Kentucky bluegrass.

The Victa/fescue fairways are constantly overseeded, but Becker said germination takes such a long time "it's a real hit-and-miss situation."

He is now experimenting with pre-germination of the seed, using germination sacks. "We've been fortunate so far," he said. "The Victa is aggressive and so healthy that poa is less than 5 percent."

Becker's poa program proved itself during the killer February temperatures of 1989. With chill factors to 70 degrees below zero, and snowcover ranging from minimal to none, the cold-vulnerable poa that comprises some or all of many Northwest greens died. Courses opened in the spring with decimated putting surfaces; some were playing temporary greens into July.

But Becker's Fairways course emerged unscathed. Winter damage to the greens was nil, and when it opened in early spring, the regular greens were playable.

Becker gave credit for the success to his crew.

"They take pride in having the finest greens around," he said. "They understand how quickly poa can invade and they take all precautions to prevent it."

Becker's crew plays to handicaps of two, six and 11, and their knowledge of what com-

prises a good putting surface pays off in the care and dedication they give their greens, he said.

Becker said he has seen poa invade courses. Some in the area are now almost totally comprised of this grass in the greens. He has seen pure bentgrass greens go to half poa in less than three years.

Winter damage from desiccation, snow mold, ice and just plain cold temperatures will likely produce some turf thinning or kill, he noted.

"If you don't re-sod or seed with bentgrass, you can be guaranteed that the poa will move right in," he said.

*Bob Spiwak is a freelance writer and photographer who lives in Mazama, Wash.*

## FAA rule pushes course away from airport

Developers of an 18-hole golf course at Yakima (Wash.) airport probably won't be able to build on their proposed site, but may be able to do so on a nearby one.

The airport board told Spokane developer Dan Clark, president of Pacific International Corp., in late December that the proposed site south of the main east-west runway was too close to the airport.

The Federal Aviation Administration requires that golf course boundaries at airports be a minimum of 1,000 feet from the center of runways. That stipulation left just 30 acres available for development. Though

an exception is possible, developers were told it is unlikely.

However, the board encouraged Clark to consider a 130-acre site west of the runways that the airport now leases to a rancher.

Yakima currently has just one nine-hole course, although it could support two 18-hole municipal courses, according to National Golf Foundation standards.

Clark hopes to build an 18-hole municipal course with clubhouse and pro shop. The total price tag should be between \$2 million and \$3 million.

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To be as comprehensive as possible we need your support. The survey is strictly confidential. We don't even ask your name. However, if you wish to enter the drawing for the lobster dinner, include your business card or print your name above the first question.

Please fill out this questionnaire as accurately and completely as possible and return to *Golf Course News*, P.O. Box 997, Yarmouth, Maine 04096.

Watch for the results of the survey in an upcoming issue. Thank you for your assistance.

insurance (family included. Yes\_\_\_ No\_\_\_)

f. disability insurance

g. 401K or other pension plan

h. profit sharing

i. vacation time (no. of weeks)\_\_\_\_\_

j. sick time (no. of days)\_\_\_\_\_

k. paid holidays (how many)\_\_\_\_\_

l. paid conference and

education expenses

m. other (please specify)\_\_\_\_\_

15. Any benefits not mentioned you would like to get? List them: \_\_\_\_\_

16. No. of employees you supervise during golf season \_\_\_\_\_

17. No. of year-round employees \_\_\_\_\_

18. Do you have an assistant (head supers only). Yes\_\_\_ No\_\_\_

19. Average hours you work in a week during peak season \_\_\_\_\_ off-season \_\_\_\_\_

20. Percentage of your time spent on (must total 100 percent): \_\_\_\_\_

a. on-course supervision \_\_\_\_\_%

b. on-course maintenance \_\_\_\_\_%

c. administrative matters \_\_\_\_\_%

d. meetings \_\_\_\_\_%

e. other (please specify) \_\_\_\_\_

21. Do you have any non-golf course duties (please specify) \_\_\_\_\_

1. Are you a Superintendent or Assistant Superintendent? (Circle one.)

2. Name and location of course \_\_\_\_\_

3. No. of holes \_\_\_\_\_

4. Type of course ... Private\_\_\_ Daily Fee\_\_\_ Municipal\_\_\_

5. No. of rounds played yearly on your course \_\_\_\_\_

6. Length of season \_\_\_\_\_

7. Yearly salary \_\_\_\_\_

8. Bonus \_\_\_\_\_

9. Bonus as a percentage of salary \_\_\_\_\_

10. How much has your salary risen during the past year \_\_\_\_\_%

11. How much more (or less) was this year's bonus than last year's \_\_\_\_\_%

12. Do you have a contract. .... Yes\_\_\_ No\_\_\_

13. How many years does your contract run \_\_\_\_\_

14. Do you receive any of the following benefits? Circle all that apply:

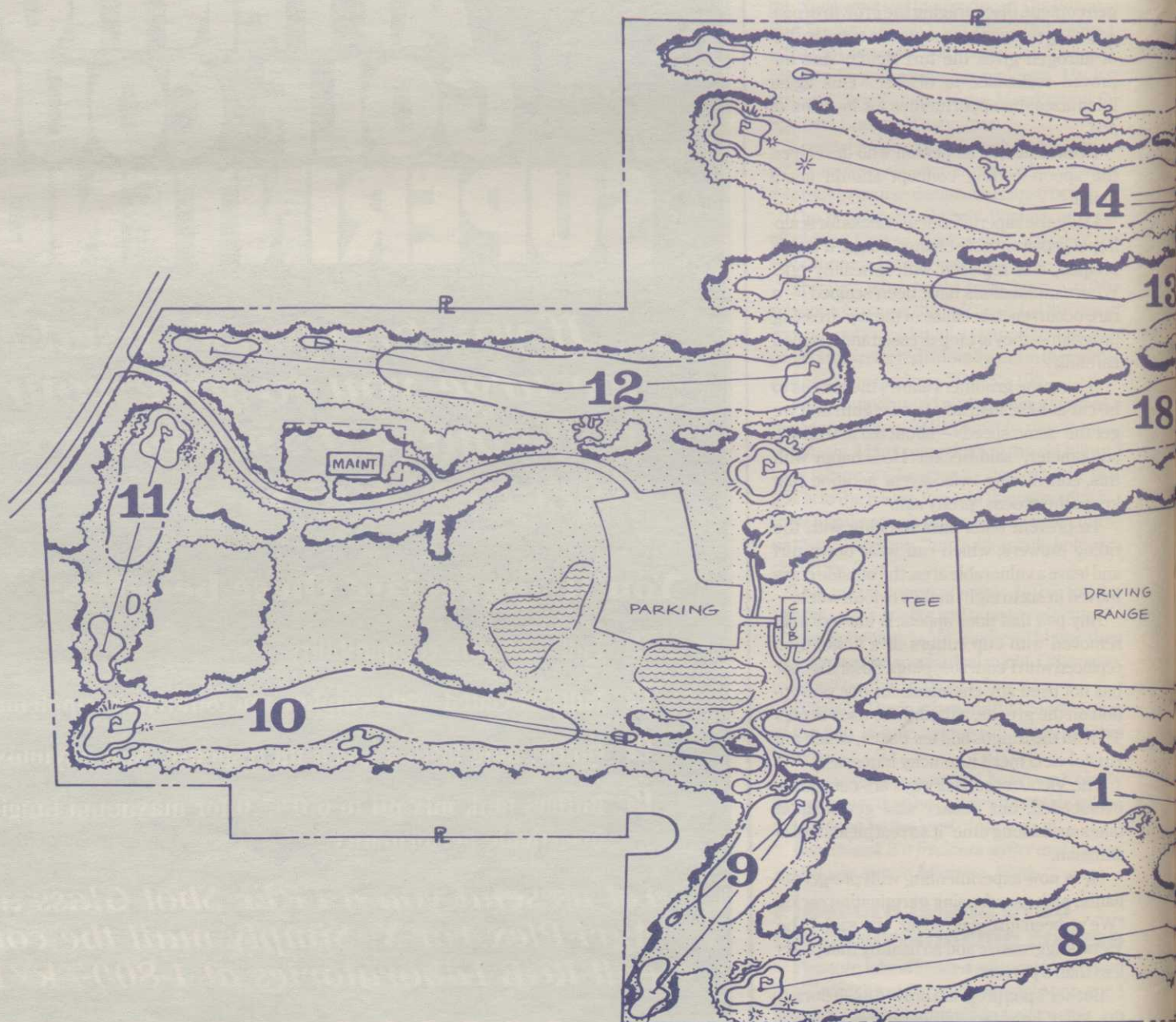
a. company car

b. car allowance

c. life insurance (family included. Yes\_\_\_ No\_\_\_)

d. health insurance (family included. ... Yes\_\_\_ No\_\_\_)

e. dental



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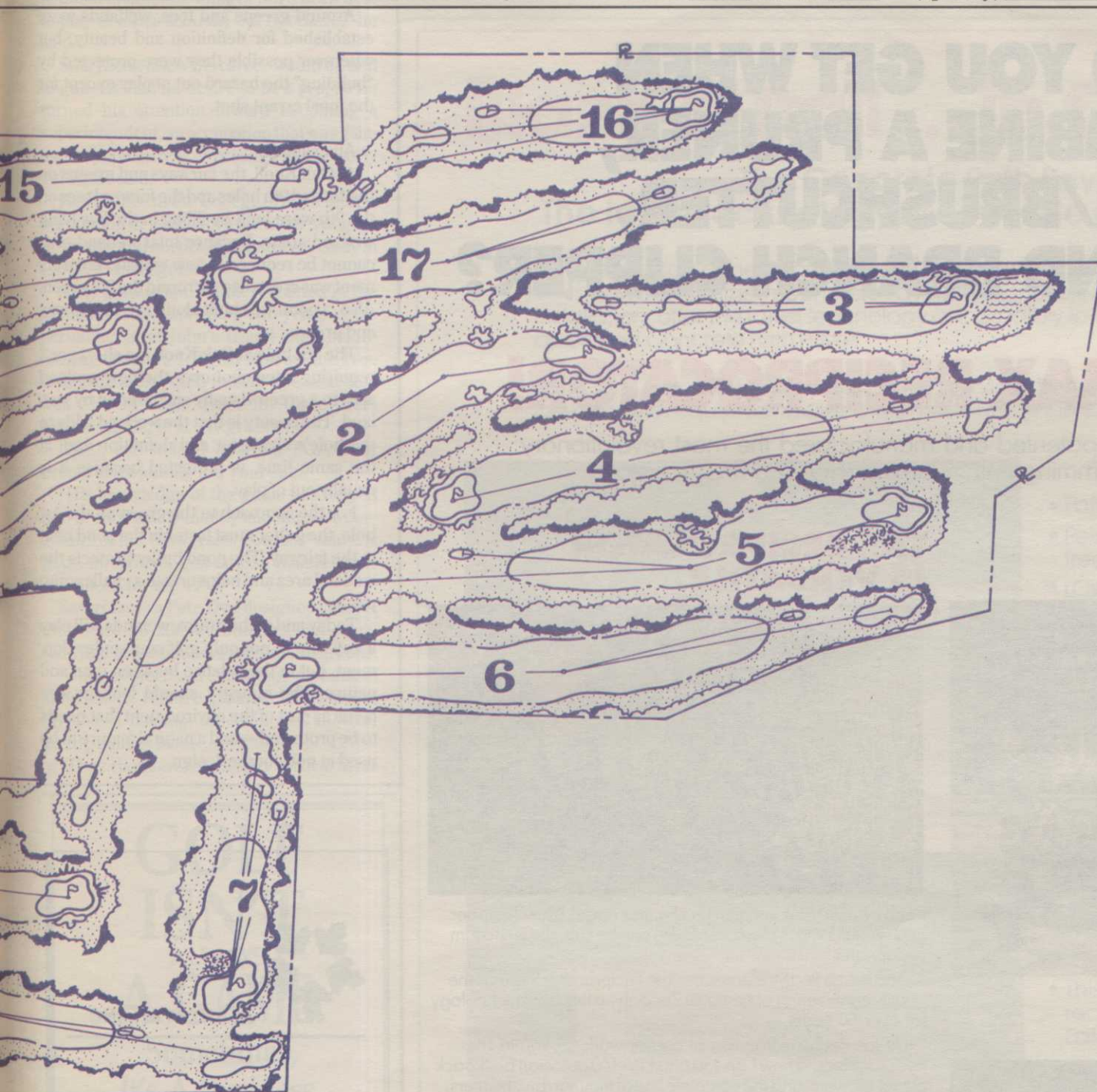
to promote vigorous seedling growth and root development. And its homogenous, free flowing, high density particles provide even distribution of required nutrients.

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# nation's golf course superintendents

22. How many years in present position \_\_\_\_\_
23. How many years at this course \_\_\_\_\_
24. How many years in this occupation \_\_\_\_\_
25. How many different courses have you worked at as head or assistant superintendent \_\_\_\_\_
26. Do you plan to be at this course two years from now Yes \_\_\_\_\_ No \_\_\_\_\_
- If not, why (Circle all that apply):
- a. career shift
  - b. professional advancement
  - c. financial reasons
  - d. other (please specify) \_\_\_\_\_
27. How would you rate your satisfaction with your job. (Circle one):
- a. very satisfied
  - b. satisfied
  - c. dissatisfied
28. Would you recommend this career to your son or daughter. Yes \_\_\_\_\_ No \_\_\_\_\_
29. What is your age \_\_\_\_\_
30. Gender Male \_\_\_\_\_ Female \_\_\_\_\_
31. Are you married. . . Yes \_\_\_\_\_ No \_\_\_\_\_
32. Have you ever been divorced. Yes \_\_\_\_\_ No \_\_\_\_\_
33. How close do you live to your course \_\_\_\_\_
34. The degrees you have earned (Circle those that apply)
- a. high school diploma
  - b. associate degree
  - c. bachelor degree (specify) \_\_\_\_\_
  - d. masters degree (specify) \_\_\_\_\_
  - e. other (specify) \_\_\_\_\_
35. Total annual maintenance budget (circle one):
- a. under \$50,000
  - b. \$50,000-\$99,999
  - c. \$100,000-\$249,999
  - d. \$250,000-\$499,999
  - e. \$500,000-\$749,999
  - f. \$750,000-\$1,000,000
  - g. over \$1,000,000
36. Annual amount spent on equipment maintenance and repair \_\_\_\_\_
37. Annual amount spent on irrigation maintenance and repair \_\_\_\_\_
38. Annual amount spent on pesticides and fertilizers \_\_\_\_\_
39. Total capital expenditure budget (circle one):
- a. under \$100,000
  - b. \$100,000-\$249,999
  - c. \$250,000-\$499,999
  - d. over \$500,000
40. Do you tend to buy equipment from one company. Yes \_\_\_\_\_ No \_\_\_\_\_
41. What is the most enjoyable part of your job \_\_\_\_\_
42. What is the least enjoyable part of your job \_\_\_\_\_
43. What is the biggest challenge facing your profession in the coming decade \_\_\_\_\_
44. In what ways do you see your job changing over the next decade \_\_\_\_\_



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anything else. Because the way we see it, designing a golf course and skimping on the turf is like designing a swimming pool and skimping on the water.



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## Commentary

Continued from page 10

miniums; in other words, wetlands. Once the Corps of Engineers outlined the protected wetland areas, the design concept for Oak Knoll was set into motion.

The design objective was to use the wetlands to create a playable, yet challenging course, without destroying the delicate wetland environment.

The first step was to relocate wetlands away from the target landing areas in the fairways. This helped speed play because errant tee and approach shots were not landing in low-lying marshy and weedy areas. This concept also helped protect the environment because golfers hitting the errant shots were not tromping through the sensitive environment of a wetland looking



The 5th hole green at Oak Knoll Golf Course in Streamwood, Ill., as seen across a wetland area set along the 4th hole.

When you consider the staggering amount of wetland acreage that has been destroyed over the years it is little wonder wetlands and the wetland environment are now protected under the Clean Water Act of 1977.

for their golf balls.

In addition to moving the wetland areas, ponds were built between the wetlands and fairways to act as a buffer zone. This water buffer offered additional wetland protection and improved overall water drainage on the course.

Around greens and tees, wetlands were established for definition and beauty, but wherever possible they were protected by "building" the hazard out of play except for the most errant shot.

An example

At Oak Knoll, the fairways and greens on the 1st and 9th holes and the forward tees on the 9th were built by filling in the low-lying wetland areas. Because total wetland area cannot be reduced, a new wetland environment was created to surround the 8th green. Also, a pond was built along the 1st fairway and green.

The 8th hole at Oak Knoll is a short par 3 requiring a tee shot over the new wetland area to a green visually surrounded by wetland. The beauty is that the wetland adds to the hole's character and definition and, at the same time, is protected because it is usually out of play.

For the approach to the green on the 1st hole, the golfer must factor in the pond next to the fairway. The pond buffer protects the wetland area and helps create a challenging par 4.

Today and in the future, wetlands will play a key role in not only golf course development, but in the balance between man and nature. The industry should look at wetlands as part of the environment that needs to be protected—and a natural feature to be used in golf course design.

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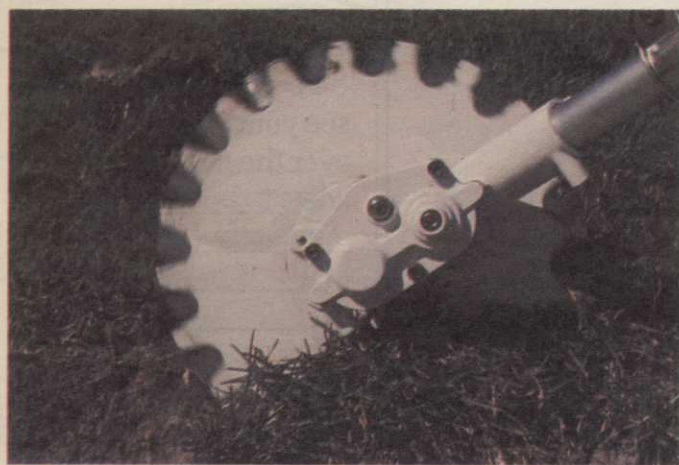
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# Klauk

Continued from page 13

personnel can develop their full potential." Klauk's schedule is demanding in a way a 6-month-old baby is demanding at feeding time. TPC Sawgrass gobbles up 12 hours a day, six days a week during most of the year. That almost doubles to 120 hours a week just prior to and during The Players Championship held annually in March.

"The job is a lot more demanding on your time than I ever would have thought. But I enjoy it very much," said Klauk, who entered the field 18 years ago.

Klauk, 40, was a scratch golfer in high school. He went to the University of Florida, though he never played on the golf team.

"That was back when the university was national champion. I might have been able to play at other schools, but not there," he said.

Still, Klauk knew his career would be tied to golf. He had no desire to be a pro, so he turned his attention toward becoming a superintendent, an occupation that was gaining in popularity and prestige in the early 1970s, he said.

He enrolled in the College of Agriculture, graduating in 1972 with a bachelor's degree in ornamental horticulture and a specialty in turfgrass management.

After graduation, Klauk remained in the Sunshine State, spending two years as superintendent at John's Island Club before moving on for a 9 1/2-year stint at Pine Tree Golf Club in Boynton Beach. The next stop was TPC at Eagle Trace for three years before settling in at Sawgrass in 1987.

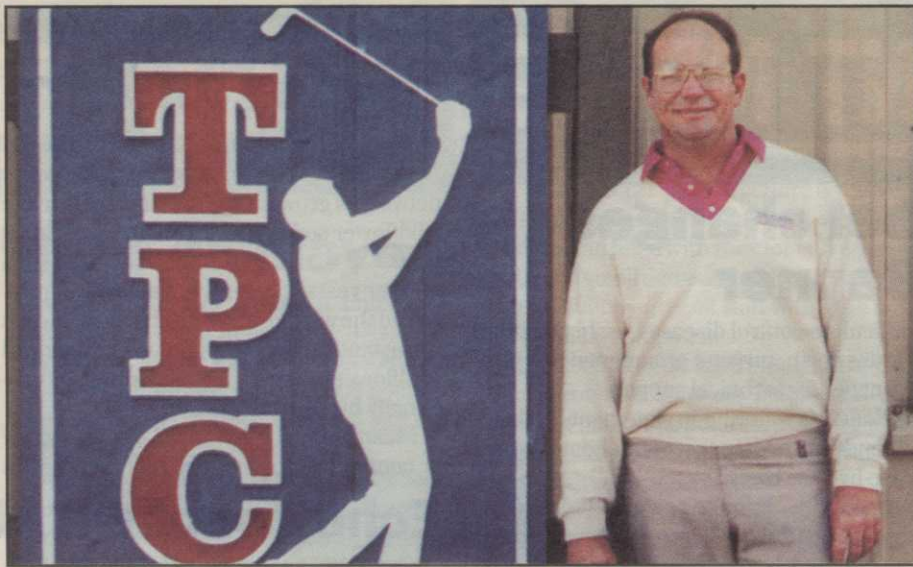
Klauk has helped host six PGA Tour events since joining the Tour staff.

"His knowledge of the game has helped him to continually modify and improve conditions of the (Sawgrass) course," said Cal Roth, director of golf course maintenance operations for the TPC.

Sawgrass is a Pete Dye-designed course. There are no fairway bunkers, but many sand and grass bunkers around the greens.

"They require a tremendous amount of hand labor," Klauk explained. "We have 14 Flymos (a floating, air-cushioned mower) for the bunker faces.

"They (bunkers) are nearly vertical in na-



Fred Klauk outside TPC at Sawgrass, Fla.

ture. There's no riding mower you could conceivably use on them.

"There's nothing easy about maintaining this course. It's similar to PGA West in concept. It's a very high-maintenance course. We have 16 full-time people to do it."

But Klauk enjoys the challenge and has no intention of moving on. "I enjoy what I do. I'll stay as long as they care to have me," he said.

If you know of an outstanding golf course superintendent who is overdue for peer recognition, please let us know. *Golf Course News* welcomes nominations.

Super Focus is a monthly feature.

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# EQUIPMENT NEWS

## EPA approves label changes on Ciba-Geigy's Banner

The Environmental Protection Agency has approved several label amendments for Ciba-Geigy's Banner fungicide on turf.

Banner now can be used to control gray leafspot on St. Augustinegrass and gray and pink snow mold on all labeled grasses. Several usage recommendations have been modified.

"These label amendments are encouraging, and we will continue research on these

difficult-to-control diseases," said Dr. Doug Houseworth, turf and ornamental products manager for technical support.

Banner's watering-in statement has been amended to address recommendations on a case-by-case basis.

In Florida, Banner now can be used for disease control on all Bermudagrass except on greens when temperatures exceed 90 degrees Fahrenheit.

## Applewood Seed enlarging dealer and grower network

Founder and president Gene Milstein said Applewood Seed Co. is setting up a larger network of growers and distributors to make wildflower sod available on a more regional basis.

After years of research, Applewood introduced the wildflower sod in 1987 as a means to instantly cover ground with perennial wildflowers. The sod is now produced nationally by licensed growers.

Meanwhile, the Arvada, Colo., company is continuing to conduct research on its

seed mixtures "as we locate new growers and suppliers," Milstein said.

"Fall-blooming wildflowers are in demand, so we will step up research in this area and increase our production of New England Aster," he said. "Our overall goal is to stay competitive without compromising quality."

Applewood, whose 35-man staff includes two horticulturists, an ecologist and a registered seed analyst, field-tests all its mixtures in its own trials and in cooperation with botanic gardens and universities.

## Echo conclave aims at customer

The sixth annual Echo Service Managers' Conference, held recently in Arlington

Heights, Ill., addressed topics ranging from the basic repair and trouble-shooting of Echo's engines to improving customer satisfaction.

The highlight of the conference was a product integrity session in which 37 service managers from North America, New Zealand, the United Kingdom and France exchanged views with a panel of Echo executives.

Product Service Trainer Awards were presented to Dave Herring of Virginia Outdoor Equipment in Charlottesville, Va.; Dave Ryser of Burton Supply Co. in Youngstown, Ohio; Alan Tate of Outdoor Equipment Distributors in Raleigh, N.C.; Dave Greineder of Lawn Equipment Parts Co. in Landisville, Pa.

Also, George Hassan of Rahr Sales Inc. in Forest, Ohio; Quentin Gunther of Power Equipment Distributors in Baton Rouge, La.; and Timberland Machines Inc. in Lancaster, N.H.

Each service manager received a package of slides and supporting scripts to use in 1990 dealer service schools.

## Rain Bird adds Bob Ladd, Sawtelle Bros. as distributors

Sawtelle Brothers, Inc. of Lawrence, Mass., and Bob Ladd, Inc. of Memphis, Tenn., have been named the exclusive distributors of Rain Bird's line of golf course irrigation products in their regions.

Ladd, which will handle the western Tennessee and northern Mississippi regions, has been in business for more than 30 years.

Sawtelle, in operation for 57 years, will supply Maine, New Hampshire and Vermont.

Both Ladd and Sawtelle are full-service suppliers of Jacobsen and other major turf-equipment lines for golf courses, commercial and light commercial projects.

They both also furnish repair on golf course irrigation equipment.

## Lesco donates to research effort

Lesco, Inc. has presented a check to the Musser International Turfgrass Foundation from the proceeds of a Lesco promotion.

Through Turf-Seed Inc.'s Blue Tag Promotion Program, Lesco redeemed 50 cents on each tag redeemed from Turf-Seed's Oregon Certified Turfgrass Varieties.

Musser is a non-profit organization dedicated to supporting education and research in turfgrass development and management. It funds research on further development of turfgrass research and education by establishing fellowships for outstanding turfgrass science graduate students working toward their doctorate degrees.

## Erosion Control has never been more advanced



Controlling erosion is an essential element in golf course operations. Erosion left unchecked while construction is in progress will cause extensive rework and delays.

NORTH AMERICAN GREEN erosion control/revegetation blankets add a new dimension of confidence in seeding activities. Constructed with netting containing Ultraviolet enhancers, NORTH AMERICAN GREEN DS150 is ideal for professional turf installations. DS150 degrades in about 45 days. DS150 is one in a series of products to control erosion and to establish vegetation. With their unique design, NORTH AMERICAN GREEN blankets stay in place controlling erosion where other methods fail.

For more information contact your NORTH AMERICAN GREEN distributor.



14649 Highway 41 North • Evansville, IN 47711 • In State (812) 867-6632 • 1-800-772-2040

EROSION CONTROL BLANKETS

For free information circle #159

## Environmental monitoring equipment used to be complex and not very accurate.



Like the ancient pillars of early man, disease prediction can be mind boggling. EnviroCaster changes history and makes turf disease easier to predict.

EnviroCaster provides the information you need to make environmentally safe management decisions. Even when you can't be there, EnviroCaster is working 24 hours a day monitoring the conditions that lead to turf damaging disease. The computerized weather-proof field unit is simple to operate and allows permanent record keeping with just the touch of a button.



## EnviroCaster

For complete information on how EnviroCaster can serve you, contact Neogen today.

Call (517) 372-9200.



620 Leshar Place • Lansing, Michigan 48912

For free information circle #160



## NEW LITERATURE

### Prefabricated bridges displayed

DeBourgh Manufacturing, Town & Country Bridges is offering a new 12-page catalog of pre-engineered/pre-fabricated bridges.

The catalog shows numerous installations including resorts, golf courses, pedestrian highway overpasses and underpasses, parks and walking trails. Complete specifications are provided.

The bridges are constructed of self-weath-

### NGF updates Directory of Golf

The National Golf Foundation's revised and updated "Directory of Golf" is now available.

The directory lists current professional, corporate and charter members of NGF, together with a brief identification of their business category. It also lists state, regional, national and international associations.

The "Directory of Golf" is available to members of NGF for \$15 and non-members for \$25.

Contact National Golf Foundation, 1150 South U.S. Highway One, Jupiter, Fla. 33477. Circle No 255

### Excel promotes Snow Track 440

Excel Industries has released a full-color, six-page brochure on the Snow Track 440 snow groomer.

The Snow Track 440 is a cross-country ski trail building machine that can be converted to a commercial out-front rotary lawn mower.

For free literature call Excel Industries Inc. at 1-800-835-3260, in Kansas and Canada, 1-316-327-4911. Circle No 251

### Rain Bird releases three publications

Rain Bird Golf Division has announced three new publications. They are a four-page, full-color brochure describing the use of its new MAXI System IV computer control system with its Flo-Manager feature at Cochise golf course in Scottsdale, Ariz.; a site report, "Irrigation System of the Future Is Here Today at Gainey Ranch"; and a site report on the new irrigation system at the Desert Inn golf course in Las Vegas.

The Cochise course was built in 1987 and originally equipped with the Rain Bird MAXI-ET System, computer controlled and equipped with a weather station to provide input for the computer to calculate evapotranspiration (ET) values to determine water requirements.

In 1988 Rain Bird introduced the System IV with Flo-Manager. The publication describes the impact, including lower power consumption, at the Cochise course.

The System IV was also at Gainey Ranch in Scottsdale, where developers built a state-of-the-art wastewater treatment plant to handle the needs of the development and dedicated it to the city.

The Desert Inn report recounts the experiences of superintendent Gary Myers, who studied the economics of modern irrigation technology and spearheaded installation of the system.

Copies of the brochures are available from Rain Bird Sales, Inc., Golf Division, 145 N. Grand Ave., Glendora, Calif. 91740. Circle No 256

ering steel, which is virtually maintenance free. Bridges come in spans of 10- to 200-foot widths of four to 12 feet and standard concentrated loading up to 10,000 pounds. They are delivered pre-assembled and can be set in place within three hours.

For a free catalog contact DeBourgh Manufacturing Co., Town & Country Bridges, 9300 James Ave., South, Minneapolis, Minn. 55431 or phone 1-800-328-8829. Circle No 252

### Maccaferri details various structures

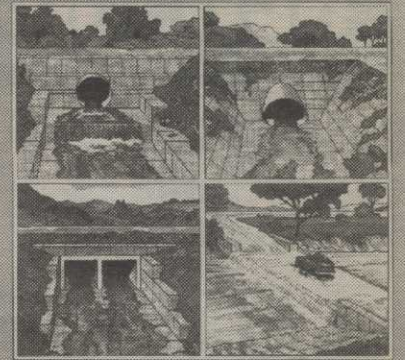
Maccaferri Gabions Inc. is making two free brochures available that may interest golf course architects and superintendents.

The first is a 27-page brochure on culverts illustrating the use of gabions, wire-mesh baskets and filled with rock for culvert headwalls and small dams. All of these structures can be built by greens staff with little or no mechanical equipment.

The second is an environmental applications brochure showing before and after views of gabion structures, many of which could be relevant to golf course developers and maintenance personnel.

The brochures are available by writing Maccaferri Gabions, Inc., 403 Governor Lane Blvd., Williamsport, Md. 21795 or calling 301-223-6910. Circle No 254

### MACCAFERRI Gabions



Technical Information: Maccaferri Gabions, Inc., 403 Governor Lane Blvd., Williamsport, Md. 21795. Phone: 301-223-6910. Circle No 254.



## JOIN THE TURF CLUB



Membership has its advantages. Kubota offers the most reliable mowing and verticutting unit on earth—the Verti-Reel.

Built for total turf maintenance whether you have golf courses, sports fields, sod farms or commercial mowing applications, the Verti-Reel provides verticutting and mowing in one proven unit.

Verticut 18 holes in less than a day. Outcuts triplex mowers. Easy mowing/verticutting head changeover. Power pack mounted conveniently on tractor's three-point hitch. Direct drive hydraulics for consistent cutting speed.

How your tractor performs can have a significant impact on the efficiency of your operations. Kubota excels with direct-injection diesel engines in both the M4030SU Turf Special and L3250F Turf Special for greater power, performance and economy.

The advantages of Turf Club membership are numerous. To find out more, write Kubota Tractor Corp., P.O. Box 7020-T, Compton, CA 90224-7020.



**KUBOTA®**

Nothing like it on earth.™



## NEW PRODUCTS

### Ransomes mower just for fairways

Ransomes Inc. has introduced a new state-of-the-art mower specifically designed for fairway mowing.

The Fairway 5000 provides the fine cutting of a greens mower, but has greater speed (six mph) and wider cutting capability (106 inches) than a greens mower or triplex.

Several special features for operator comfort have been added including high-back suspension seat with arm rests, power steering, tilt steering wheel, readable gauges and all-hydraulic design for raising and lowering cutting units.

Automatic three-wheel drive and wide turf-tread tires contribute to the Fairway 5000's excellent traction.

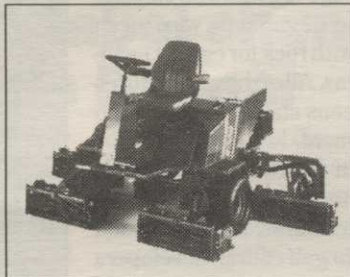
Balanced weight distribution and the automatic differential lock feature (patent pending) make the machine an excellent hill climber, Ransomes says.

In addition to fairway mowing, the Fairway 5000 can be used to narrow strip tees and landing areas or mow collars around greens.

Ransomes is offering optional quick-change Verticut heads that are great for grooming and thatch control.

Power for the Fairway 5000 is provided by a 23 h.p. liquid-cooled diesel engine for performance and economy.

For further information contact Maria Large, Ransomes Inc., Johnson Creek,



Ransomes Fairway 5000

Wis. 53038 or call 414-699-2000.  
Circle No. 306.

### Revolutionary sprinkler housing developed

American Irrigation Repair & Supply has developed a new two-part universal sprinkler housing that co-owners Harlan Bimat and Dave Tanner feel will revolutionize the sprinkler industry.

The Eagle Universal Housing is currently pending patent registration in the United States.

This two-part housing (consisting of a base and bell) can be used with any two-, four- or eight-hole sealomatic (SAM) bearing guide, Rain Bird sprinkler as well as some Weather-matic sprinkler heads. Basically, one size fits all.

The unique feature is that the housing allows for servicing the sprinkler by detaching the bell and leaving the base and sprinkler in the ground.

The bell can be removed by loosening a few screws.

The type of sprinkler can also be changed while using the same housing.

"The problem in the past was that you had many different types of sprinklers and each time you had to repair or replace one you had to match the correct bearing guide to the corresponding housing," Tanner said.

"With our Eagle, you only need

one housing."

Developed for use with the Eagle are a soft-coated lid for sports field applications and a custom check valve.

The lid features a memory that, if hit by apiece of equipment, allows the lid to return to its original shape without breaking or leaving sharp edges.

The custom check valve stops low-end drainage and prevents low-pressure flooding.

Housing, lid and check valve are now in production.

More information is available by calling (415) 659-8558. Circle No. 311.

### Irrigation control panel saves money

Irrrometer Co., Inc. has introduced a new soil moisture control system for automatic irrigation systems.

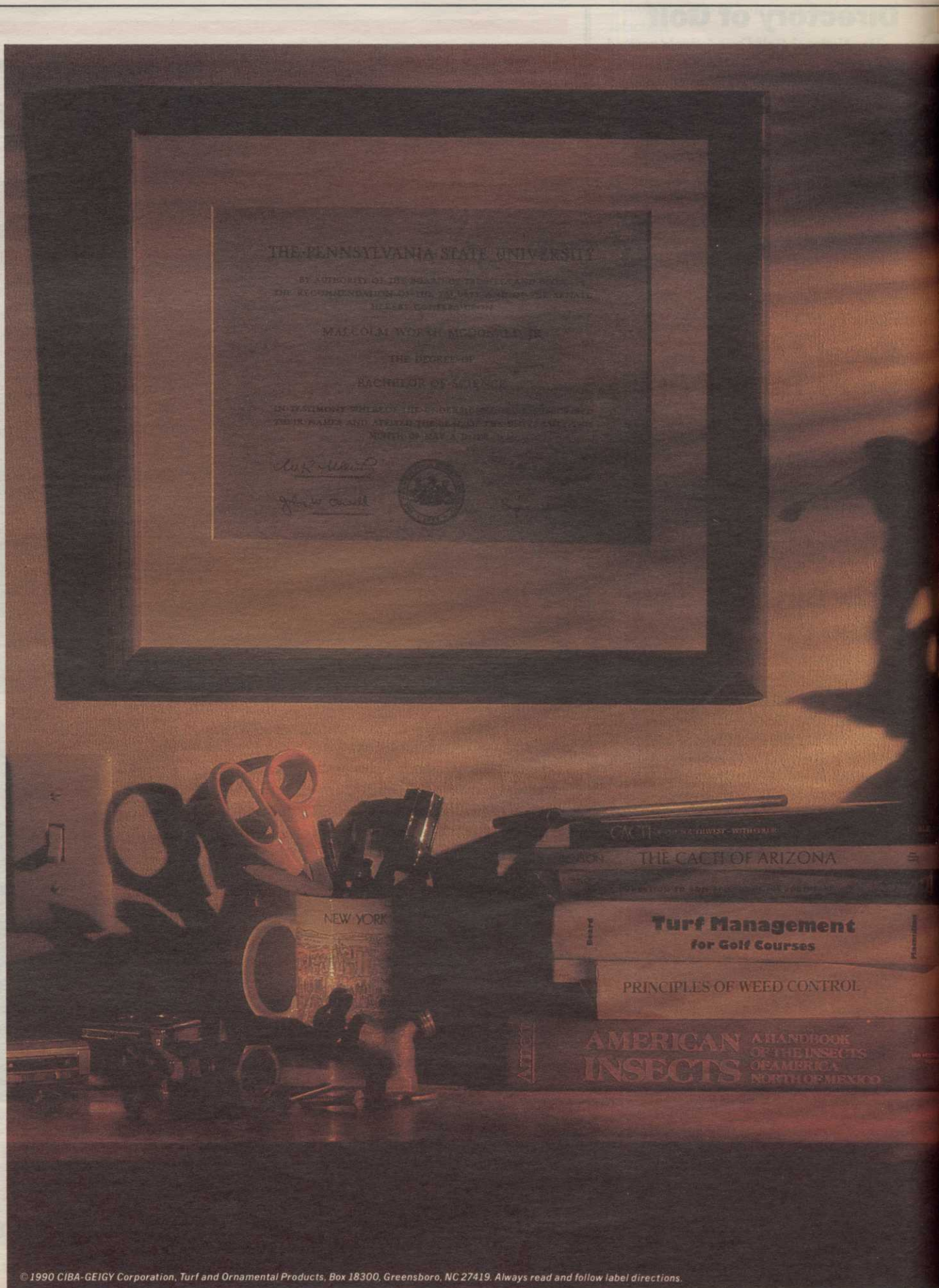
The Watermark Four Zone Moisture Control panel interfaces with any standard 24 VAC irrigation controller.

The new system allows an irrigator to divide the valves on a controller into as many as four zones representing various irrigation needs.

Each zone then has its own moisture sensing station that in turn controls the valves which irrigate that "irrigation need zone."

Benefits include reductions in water, labor, maintenance, energy and fertilizers lost to excessive irrigation along with healthier turf and plants.

For more information call 714-689-1701. Circle No. 328.





## Solatrol's light-energized irrigation system installed

The Chula Vista Golf Course in Bonita, Calif. recently became the first course to install a light-energized irrigation management computer.

Chula Vista, operated by American Golf Corporation, installed Solatrol Inc.'s LEIT 8000 water management system on one of its greens to study future applications for entire courses.

The computer's enormous capacity lets groundskeepers control watering schedules with greater precision than ever before

because they can automatically adjust for type of soil, terrain and time of year.

Because it is energized totally by light, the LEIT 8000 also eliminates the need for batteries, external solar panels and AC power.

A few hours of ordinary daylight (even subdued light) is enough to operate the system day and night for over 1,400 on and off operations, more than most irrigation systems perform in a whole month.

For more information inter-



*Solatrol light-energized irrigation computer*

ested people may contact Solatrol, Inc., 11055 Roselle St., San Diego, Calif. 92121 or call 619-452-4524. **Circle No. 346.**

## Lesco introduces subsurface drainage strip for trenches

Lesco, Inc. has developed a new, economical subsurface drainage system.

The Turf Strip Drain is installed in narrow, two-inch wide trenches deep enough to not be touched by aeration equipment.

It intercepts water flowing through the root zone, shallow ground water and surface runoff and directs it to a storm water outlet.

Normally installed in a grid pattern to take advantage of ground slopes, it provides up to 35 percent



*Lesco subsurface drainage system*

more water movement than perforated pipe.

The Turf Strip Drain is composed of a high-density polyethylene core covered by a tough, non-woven polypropylene needle-punched geotextile fabric. It is one inch thick and is shipped in 100-foot rolls.

It is resistant to fungus growth and inert to common acids found in soil.

A trencher is the only specialized equipment needed to install the Lesco product.

The only other tools required are a utility knife, duct tape and a shovel.

It is simpler to install and greatly reduces soil disturbance and displacement compared to conventional drain pipe.

For more information contact Bob Hobar at 216-333-9250. **Circle No. 330.**

## Hunter markets new arc sprinkler

Hunter Industries is making available the I-40-ADS, a new adjustable arc sprinkler that can be set anywhere between 40 and 360 degrees with a simple adjustment with the water on or off.

The sprinkler is also available as model I-40-36S for fixed, full-circle coverage.

Both models are supplied with five interchangeable nozzles to vary the radius and discharge rate.

The radius may be varied from 45 to 67 feet and the discharge rate from 7 GPM to 25.3 GPM.

The new sprinklers offer several advantages including safety-cushioned rubber covers and stainless steel risers.

Vandal-resistant features include a small 1- 5/8-inch exposed surface diameter and heavy-duty retraction spring.

For more information, people may contact Hunter Industries, 1940 Diamond St., San Marcos, Calif., 92069 or call 619-744-5240. **Circle No. 319.**

FOR THOSE

WITH THE

KNOWLEDGE TO

CONTROL

TURF DISEASES,

A FUNGICIDE

THAT FINALLY LETS

YOU USE IT.

Instead of one blanket rate, Banner® gives you the freedom to prescribe just the right treatment for up to twelve specific turfgrass diseases.

At rates that, in many cases, are lower than what you may be using now.

Which means Banner not only lets you use the knowledge you have, but lets you use it to increase efficiency and save money.

And isn't that, ultimately, the greatest sign of smart management?





## Classen's Turf Slicer overseeds and slices at the same time

Classen Mfg. has introduced the Turf Slicer, a new way to overseed and/or slice in one operation.

Turf Slicer has a front-mounted seed box that operates by friction from drive wheels. Rotating slicer

blades slice the sod to a pre-determined depth up to 1-1/2 inches. Depth is adjustable with finger-tip screws.

The self-propelled unit moves at 2.27 mph and covers 21,000 square

feet per hour in a 21-inch swath.

For more information contact Classen Mfg., Inc., 1403 Pine Industrial Rd., Norfolk, Neb. 68101 or call 402-371-2294. **Circle No. 329.**

## Two pull-behind aerators for Feldmann

Feldmann Engineering & Manufacturing Co., Inc. has introduced two new pull-behind core plug aerators that cover a large area quickly.

The Feldmann 2340 aerates a 32-inch swath and the 2340-48 a 48-inch one, penetrating up to 2-1/2 inches when towed behind a gar-

den tractor or riding lawn mower.

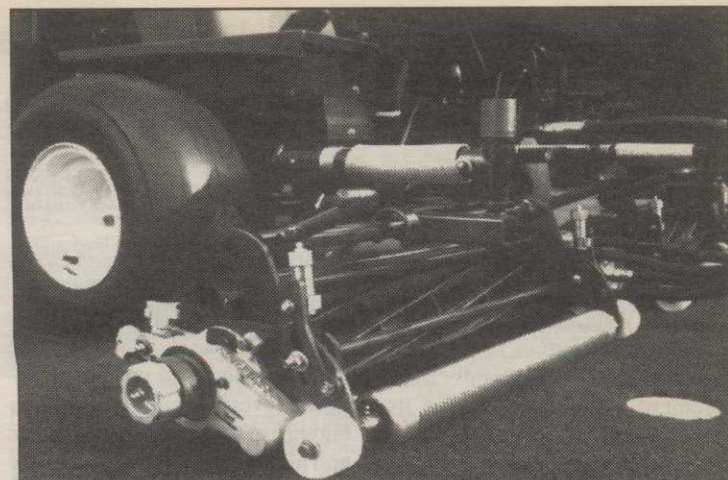
Lift-up handles pop the 10-inch pneumatic tires into place for easy transport.

The load tray can be weighted up to 100 pounds.

A gang bracket is available that will gang three units together for

an 82-inch swath with model 2340 and a 132-inch swath with model 2340-48.

For additional information contact Feldmann Engineering & Manufacturing Co., Inc., P.O. Box 153, Sheboygan Falls, Wisc. 53085. **Circle No. 344**



Jacobsen Turf Groomer

## Jacobsen Turf Groomer improved

Jacobsen Division of Textron recently introduced an improved

Turf Groomer (R) greens conditioner and a new model for fairway use.

The Turf Groomer has a larger front roller and larger, thicker six-point cutting blades for greater strength and durability. Two blade spacings are available.

The Turf Groomer has a one-inch drive belt protected from debris by a sealed housing. The cover can be removed for inspections and adjustments. A double pin clutch is standard.

The up/down blade adjuster can raise or lower the reel up to 3/8-inch in 1/8-inch increments to raise the blades to skip grooming. A micro-depth adjustment dial fine tunes cutting heights without tools. Anti-scalp gauge wheels help prevent the marking of turf.

The roller's grooves have beveled edges that help lift horizontal grasses on greens and fairways. The knives rotate through the slots in the roller, slicing the grass blades and surface runners before they lie down, so the grass stands up for a smoother surface. This cutting action promotes more vertical growth with more leaf surface for better photosynthesis, encouraging deeper roots and improved stress tolerance.

Regular use of Turf Groomer can increase green speed up to 25 percent, Jacobsen says.

Contact the Marketing Department, Jacobsen Division of Textron Inc., 1721 Packard Ave., Racine, Wisc. 53403. **Circle No. 301.**

## Innovative markets sprayer

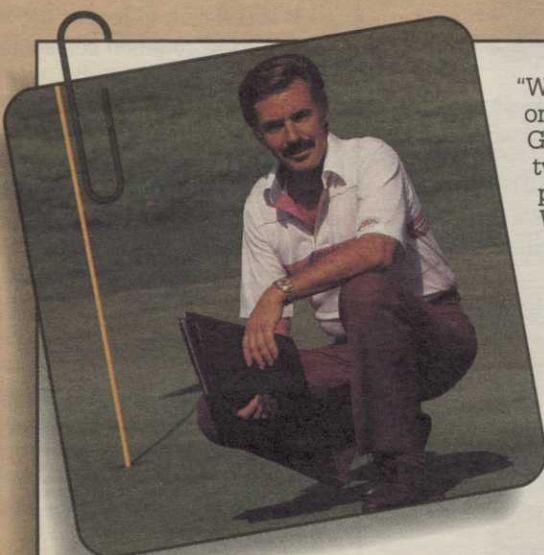
Innovative Equipment Inc.'s new 4501 Windfoil Skidmount sprayer offers both drift and perception control when applying pesticides.

The Windfoil allows for applications with less water, smaller drops and lighter equipment which reduce compaction and drying time for re-entry. Spraying with mist-sized drops puts more of the chemical on the plants and less of it on the ground, increasing efficacy and reducing the amount of off-target chemical wasted.

With the spray safely contained under the shroud and out of sight, the public doesn't become alarmed that the air is being contaminated.

For more information call 306-975-0500. **Circle No. 325.**

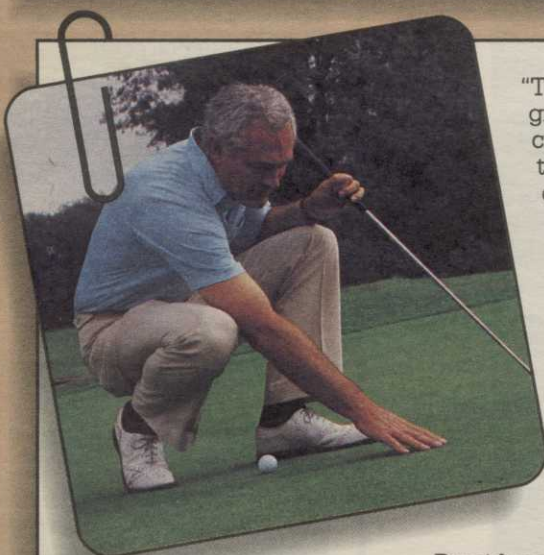
# BENTGRASS



"We planted the 12th hole on Singing Hills' Willow Glen Course to SR 1020 two years ago, and it performed admirably. What's really significant is that members keep asking what we've done to the 12th hole that makes it putt so well! The members like SR 1020's performance from the players' point of view; we like that too, but we also value that we haven't had to change our normal greens maintenance program to achieve the results."

*David Fleming*

David Fleming, C.G.C.S.  
Superintendent, Singing Hills Country Club  
El Cajon, CA



"The newer golf course greens planted to Penn-cross look beautiful, but they don't putt like the old South German Bent greens. The putting surface of those old greens is fine-textured, not thatchy or grainy, and the old greens don't show the spike marks like Penn-cross. We've been needing bent-grasses bred for golf quality as well as turf quality for a long time, and it looks like SR 1020 and Providence fill the bill!"

*Pete Trenham*

Peter Trenham  
President, Philadelphia Section PGA  
St. David's Golf Club  
Wayne, PA

## Finally! New Cultivars Bred To Meet the Needs of the Superintendent and the Golfer!

At Seed Research, we listen to your needs. You've been wanting a bentgrass that's tough, looks great, and is easy to maintain ... but one that's also fine-textured, with good putting green quality. And available.

So when the bentgrass shortage became apparent in 1983, we acted quickly and acquired parental germplasm from two of the finest bentgrass collections in the country — the University of Rhode Island and the University of Arizona. From those collections, we developed two exciting new creeping bentgrass cultivars, Providence (SR 1019) and SR 1020.

Evaluation on golf courses and at universities has shown that both these bents produce the kind of turf you demand: dark green, aggressive, competitive, easy to manage, good disease resistance, good stress tolerance, and compatible with existing bents for overseeding.

And, for real golfers like Peter Trenham, SR 1020 has proven it provides everything desired in a putting green bent: fine texture, uniform surface, and most importantly, an absence of grain, so the ball holds the line for true putting accuracy.

With Providence (SR 1019) and SR 1020, you can look forward to a good-looking grass that will give you the performance you demand and the putting green quality your golfers prefer!

Both varieties are in production and excellent quantities of certified seed are available NOW.

**SEED RESEARCH**  
OF OREGON, INC.

P.O. Box 1416 • Corvallis, Oregon 97339 • (800) 253-5766

For free information circle #173



## New products introduced by Rain Bird

Rain Bird has introduced the golf industry's first computerized hydraulic irrigation control system. The new device combines the advanced features of the MAXI System IV computer control system with those of a stainless steel field satellite and a complete family of hydraulic valve-in-head rotors.

The MAXI System IV offers Flo-Manager, an energy and time saving feature. It also provides "Cycle and Soak" which yields extensive water savings by automatically preventing the unwanted evaporation, flooding, pooling and run-off that occur when water is applied faster than it can be absorbed by the soil.

The system can also provide ET-sensitive scheduling and communicate directly with an optional on-site weather station.

Tied to the computer system is a complete family of hydraulic valve-in-head rotors that operate independently and insure individual head control for precise watering.

Rain Bird has also added several new rotors.

The 47DS, 51 DS, 95DS and 91DS Stomatomatic Rotors (SAM) are housed in high-strength, plastic cases with a stabilizing flange all designed to withstand the rigors of overhead golf maintenance equipment and golf carts.

They are engineered to stand up to the most demanding water quality conditions and are available in full-circle and part-circle models.

The 47DL and 51 DL valve-in-head, low-pressure electric rotors are designed to provide substantial energy savings by operating at a pressure setting of just 60 psi. The



Rain Bird's 47DS/51DS Rotors

diaphragm valve-in-head feature permits independent operation of rotors throughout the course and has an individual head control for precise watering.

For more information call Peter B. Johnson at 818-963-9311 or write Rain Bird Sales, Inc., Golf Division, 145 N. Grand Ave., Glendora, Calif. 91740. **Circle No. 340.**

## Injectable wetting agent available

Aquatrols is introducing a new soil-wetting agent formulation, AquaGro injectable, created specifically for injecting into golf and landscape irrigation systems.

Injectable is a low-viscosity formulation containing 33 percent Aquagro soil-wetting agent.

Available in 55-gallon drums, it can be injected into irrigation systems using any

commercially available irrigation injecting pump.

Like the other AquaGro formulations, Aquagro Injectable will reduce water run-off and evaporation and enhance the performance of water-soluble chemicals.

For more information contact Aquatrols, 1432 Union Ave., Pennsauken, N.J. 08110 or call 800-257-7797. **Circle No. 321.**

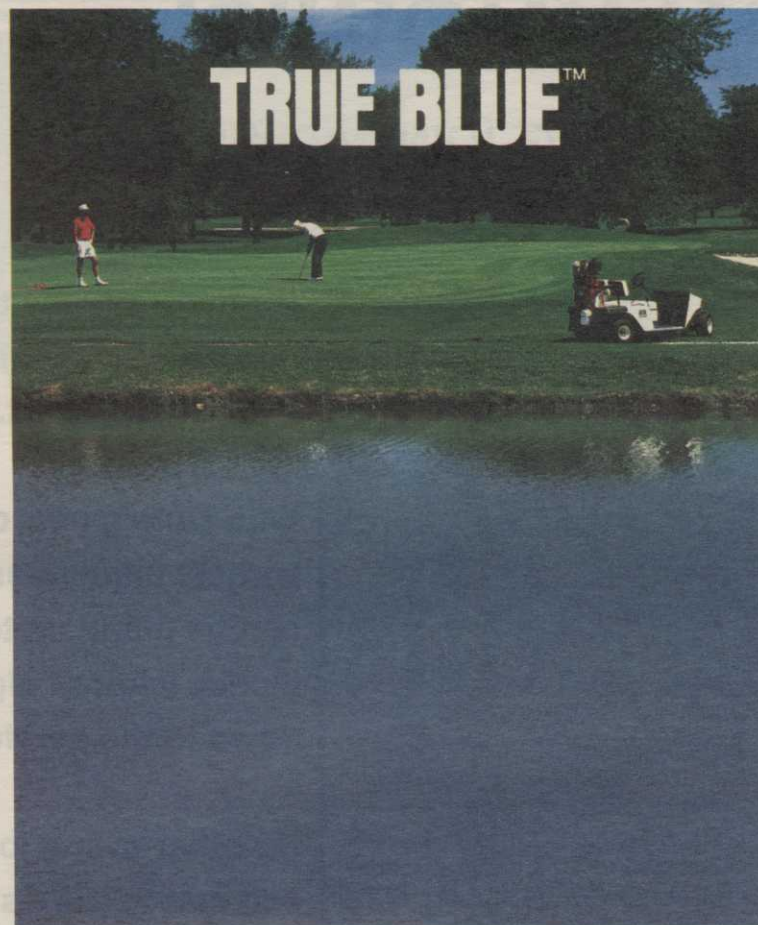
## Sod Slide fixes damaged greens

Miltona Turf Products has introduced the Sod Slide, a tool for repairing greens damaged by hydraulic oil spills, winter kill or vandalism.

It easily cuts out the damaged sod and the

replacement strips from your turf nursery. It is available in three-, five- and seven-inch sizes.

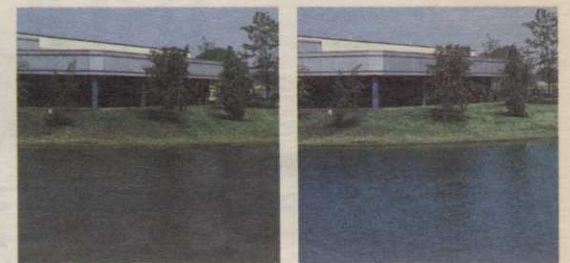
For more information call 800-456-4351. **Circle No. 334.**



## The better, more natural looking lake and pond dye

Why settle for artificial looking dye when TRUE BLUE™ will give your lake or pond a natural, living color appearance. The secret's in our tried and true blue formula that makes the other brand look unnatural by comparison.

Try it and see for yourself why TRUE BLUE is fast becoming the preferred lake and pond dye. The one that's a natural. For more information and a technical bulletin, call or write today.



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800-323-6280 312-498-0800

TRUE BLUE is a trademark of Precision Laboratories, Inc.

For free information circle #163

## Building houses pesticides safely

Environmental Products, Inc. recently introduced a new pesticide storage building. Available in two basic sizes, the E.P. Containment System meets or exceeds most state and local codes.

The System has a 100 percent, leak-free containment floor and is properly vented to prevent vapor accumulation. It features on-site construction or can be shipped pre-assembled. Standard features include a chemical-resistant, Epoxy finish and three-point locking, double-panel doors. Additional optional features include a double-wall, explosion-resistant package; forced air ventilation; fire security sprinkler systems; lighting packages; and chemical-resistant floor liners.

For additional information call 216-683-0880. **Circle No. 351**

## Cover reduces maintenance

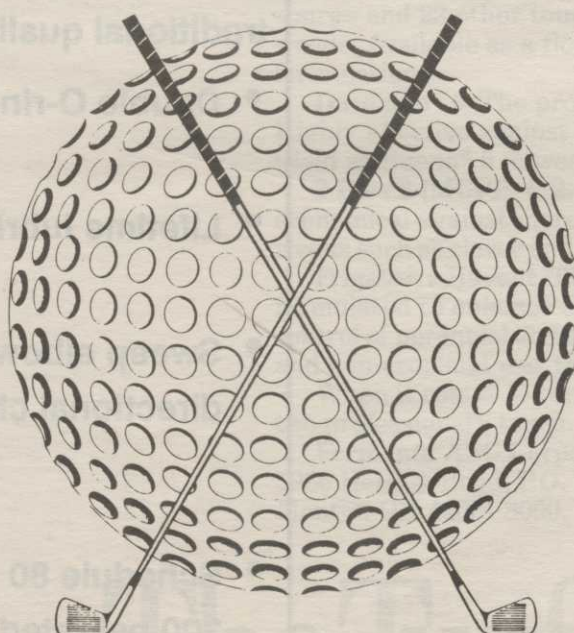
Seidelhuber Metal Products, Inc. has introduced a new type of galvanized steel grating designed to provide a permanent, heavy-duty covering for golf course catch basins and drain inlets.

The new grating is designed to provide optimum drainage while catching leaves and other debris on the surface for easy clean-up.

In addition to reducing maintenance costs from clogged drains, the new grating helps prevent accidents to players and course personnel caused by poorly enclosed basins and inlets. Available in spans up to five feet, it will support golf carts, mowers and ground maintenance vehicles.

For more information call 800-635-6948. **Circle No. 335.**

# Formost Construction Co.



IRRIGATION SPECIALISTS

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For free information circle #164



## Cushman GT-1 offers new features

The newest addition to the Cushman line of turf vehicles is the Cushman GT-1. Powered by an economical eight-horsepower, gasoline, air-cooled engine, the GT-1 has enough capacity to carry up to 1,000 pounds of cargo.

The vehicle features a fully automatic torque converter with automotive-type differential that transfers more engine power to the drive wheels for more lugging power.

The four-cycle engine burns regular gasoline, eliminating the



*Cushman GT-1 Turf Vehicle*

need for oil-gas mixtures.

With a 19.5-foot outside clearance circle and an overall width of just 45-1/2 inches, the GT-1 has plenty of maneuverability for just about any type of grounds

work.

The 44-by-40-by-8-inch cargo box holds up to eight cubic feet and 1,000 pounds of payload.

For more information call 800-228-4444. **Circle No. 302**

## Weather Pro small, reliable

Spectrum Technologies, Inc. has introduced a small, affordable computer weather station. The Weather Pro applies micro-processor technology that is sophisticated, highly accurate, easy-to-use and affordable.

The Weather Pro provides wind speed, high wind gust, wind direction, temperature, wind chill, high and low temperature, daily and accumulated rainfall and clock. It also scans selected functions, instant metric conversions, battery and AC operation.

Contact Spectrum Technologies, Inc., 12010 S. Aero Dr., Plainfield, Ill. 60544 or call 800-248-8873. **Circle No. 341**



*Precision Labs Emergency Safety Station*

## Precision Labs develops safety station

An emergency safety station for immediate eye, face or body flushing in the event of an accident has been developed by Precision Laboratories Inc.

The emergency station consists of a sterile, isotonic, buffered saline solution and wall-mounted backplate.

Bottles pull out for fast access when accidents occur.

Installed in work areas, near chemical mixing or processing, the system is designed for immediate response in the event of an acid, caustic or water soluble chemical mishap.

Tamper-evident seals and special twist-off caps ensure the contents are sterile and contaminant free. Bottles are date-coded for added protection.

The Emergency Wash Station is available in 32-oz. or 16-oz. containers.

For further information people may contact Precision Laboratories Inc., P.O. Box 127, Northbrook, Ill. 60065 or call 800-323-6280. **Circle No. 322**

## Kubota adds new mower attachments

Two new attachments are available for Kubota Tractor Corp.'s F-Series front mower, a turf blower and cab enclosure.

The F2535 blower is quickly attached and has a wind velocity over 255 m.p.h. that can be directed left, right or forward.

An optional deflector angles the wind downward to assist in windrowing.

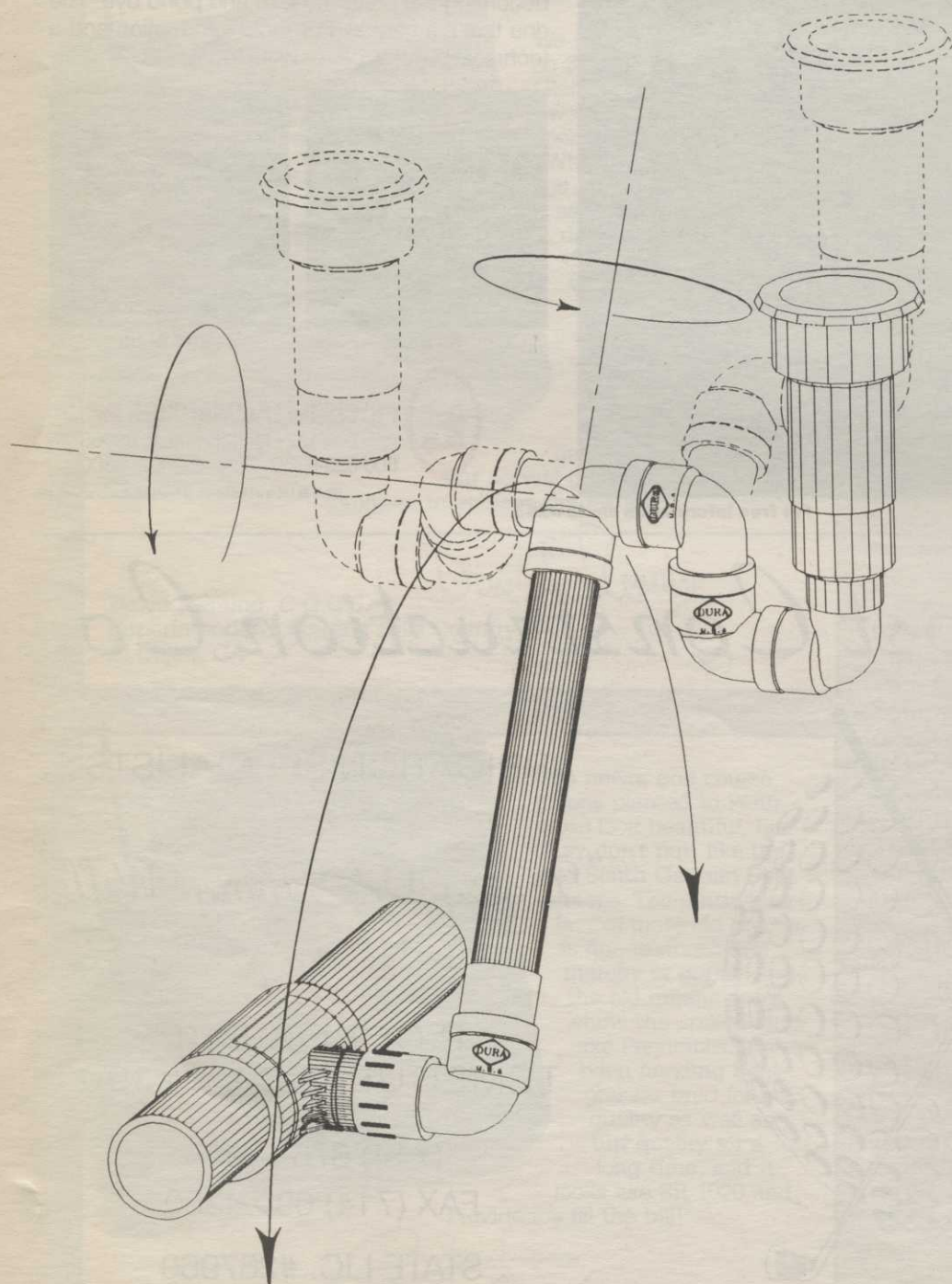
The soft-sided cab provides protection from the weather and comes standard with two headlights, an 1/8-inch tempered glass front panel and manual wiper.

An electric wiper and hard-sided cab are optional equipment.

For more information contact Kubota Tractor Corp., 550 West Artesia Blvd., Compton, Calif. 90220. **Circle No. 304.**

# DID YOU KNOW!?!

## DURA PLASTICS NEW SWING JOINT ADJUSTS AT THE HEAD AND AT THE SERVICE TEE.



Dura introduces the first fully-adjustable 360° Swing Joint.

With Dura's new design, vertical adjustments can be made up to 8 1/4 inches without digging down to the service tee.

No other swing joint can match Dura's ease of adjustment to final grade.

Plus.... you get Dura's traditional quality.

- Double O-ring
- Lifetime lubricated
- Sweep elbows at directional changes
- Schedule 80 200 psi rated



## E-Z-GO first with electric speed control

E-Z-GO is the first major golf car manufacturer to offer an electronic, solid state speed control as standard equipment on its electric golf cars.

The electronic speed control generates tremendous savings for the golf car fleet operator by reducing energy costs approximately 28 percent and lengthening battery life. It also produces a smoother ride than both electric cars with conventional rheostat speed controls and gasoline-powered golf cars.

The 1990 E-Z-GO electric car will pro-

## Bunton offers new reel for greens care

For superintendents concerned with reducing thatch and runner problems to achieve faster, truer and healthier greens, Bunton Co. is now offering a new Greens Conditioner Reel for use with its Triplex Greensmower.

The reel features 273 vertical knife blades in a helical pattern on 1/2-inch centers, and at 3,600 rpm the heavy-duty gear motors assure a high frequency of clip while conditioning the greens.

Many of the components are interchangeable with components on the Bunton walking greensmower to minimize spare parts inventory.

For more information contact Bunton Co., P.O. Box 33247, Louisville, Ky. or call 502-966-0550. **Circle No. 307**

## Z-bend pliers make engine work easier

Oasis Control Products has developed a set of pliers that will make a Z-bend in throttle and choke wire without the fumbling involved using needle-nose pliers.

The Z-bend can be formed by simply inserting the wire into the notches at the end of the pliers and squeezing until a perfect 90-degree bend is obtained. These pliers will also cut any size wire up to 3/32 of an inch.

For more information write Oasis Control Products, 2614 Niles Cortland Rd. N.E., Cortland, Ohio 44410 or call 216-637-9442. **Circle No. 316**

## VIT products train root growth

Two new products, Root Barrier and Root Deflector, have been added to V.I.T. Products arbor care line.

Root Deflector is a cylindrical training device for tree roots that gently forces them to grow downwards, preventing root girdling and other harmful root-bound conditions.

Unlike other products, Root Deflector accommodates tree root expansion with "tear-away" flares that spread as roots grow. Root damage and liability problems due to hardscape and structural damage are also avoided.

Root Barrier is a special underground edging system that allows trees to be planted close to curbs, sidewalks and other hardscape. It has been used extensively by municipalities in median strips and other heavy pedestrian areas.

For more information contact Linda Knoche at 619-723-0255. **Circle No. 347**



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vide at least three rounds per charge on any regulation course.

For information call E-Z-GO Division of Textron Inc. at 404-798-4311. **Circle No. 338.**

## Buckner introduces valve-in-head sprinkler line

Buckner has introduced a new family of Valve-In-Head sprinklers for golf and institutional applications.

The very popular cam drive sprinkler and piston valve are combined in a compact package of high-tech plastics, bronze and stainless steel.

These products include several innovations and features not available in other Valve-In-Head products. The nozzle pressure can be adjusted and measured at each sprinkler by means of a Schraeder valve mounted on the sprinkler head, which allows for optimum performance and water use. All sprinklers offer adjustable speed of rotation for quick syringing.



*Buckner sprinkler heads*

For more information contact Buckner Inc., 4381 N. Brawley, Fresno, Calif. 93722; (209) 275-0500. **Circle No. 310**



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\*Roundup is a registered trademark of Monsanto Company. Always follow label directions carefully when using turf chemicals.

For free information circle #168

AG-A689



# Golf Course Marketplace

To reserve space in this section, call Simone Lewis, 813-576-7077

## REAL ESTATE

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## EMPLOYMENT

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### POSITION WANTED

Golf course constr. mgr./post production superintendent w/BS degree in Agronomy from Texas A&M Univ., 12 yrs. turfgrass specialist exp. & 6 yrs. as golf course super., seeks golf course constr. &/or post production super. pos. For resume, write or call **Earl F. Arto, Rt. 5, Box 532, Houston, TX 77044. (713) 456-0773.**

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## BUSINESS OPPORTUNITIES

**A going business in South Florida** brokering used turf equipment for golf courses is looking for associates to expand into a network of independent brokers in Florida and the Southeast. Send for more information. **UTEC, PO Box 1665, Hobe Sound, FL 33475.**

**Call Simone Lewis at 813/576-7077 to place your ad in the March issue.**

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# Calendar

## February

6-8—South Carolina Landscape & Turfgrass Association's 14th annual Grounds Maintenance Conference and Trade Show at the Sheraton Charleston Hotel. Held in cooperation with Clemson University, the conference is designed for the green industry, especially businesses and educational institutions involved in lawn care application and maintenance, turfgrass management, landscape design and implementation, maintenance of ornamental gardens for public use and recreation, and nurserymen. Contact SCLTA at P.O. Box 325, Clemson, S.C. 29633.

9-11—United Golf Exposition and Trade Show in Fort Wayne, Ind. For further information call 800-421-SHOW.

14-16—The American Sod Producers Association's Midwinter Conference and Exposition at The Hilton at Walt Disney World Village in Orlando, Fla. Contact Sharon Topel, meetings administrator, ASPA, 1855 Hicks Road, Rolling Meadows, Ill. 60008; 312-705-9898.

15—Connecticut Turf and Landscape Conference at the Hartford Civic Center. Contact the Connecticut Grounds Keepers Association, Inc., P.O. Box 876, Bethel, Conn. 06301; 203-791-8615.

21-22—Crittenden Golf Real Estate Development Conference in Palm Springs, Calif. Contact Crittenden at P.O. Box 1150, Novato, Calif. 94948; 415-382-2486.

19-26—61st International Golf Course Conference and Show, sponsored by the GCSAA at Orange County Convention/Civic Center in Orlando, Fla. \*

28—New Jersey Landscape 1990, hosted by the Bergen County Landscape Contractors Association, will be held at The Stadium Club at Giants Stadium in East Rutherford, N.J. More than 80 exhibitors will be present and guest speakers and educational seminars are planned. Contact Skip Powers at 201-664-5228 or Jim Stewart at 201-327-0820.

## March

6-7—GCSAA seminar on Landscape Plant Materials at Lafayette Hill, Pa. \*

15-16—GCSAA seminar on Insect Pests on Golf Course Trees and Shrubs at Cromwell, Conn. \*

19-20—Maine Turfgrass Conference and Show, sponsored by the Maine Golf Course Superintendents Association, at Holiday Inn by the Bay in Portland. Contact committee chairman Kevin Ross at 207-829-3880.

19-20—GCSAA seminar on Business Communication and Assertiveness Techniques at Minneapolis, Minn. \*

25-29—American Society of Golf Course Architects' 44th annual meeting at the Inn at Spanish Bay in Pebble Beach, Calif. Contact the society at 221 North La Salle St., Chicago, Ill. 60601; 312-372-7090.

## April

16—GCSAA seminar on Calculations and Practical Mathematics in Golf Course Management at Renton, Wash. \*

18-19—Crittenden Golf Real Estate Development Conference in Orlando, Fla. Contact Crittenden at P.O. Box 1150, Novato, Calif. 94948; 415-382-2486.

\*—For more information or to register, call the 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.

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# Becker devises poa annua solution

BY BOB SPIWAK

Ask any golf course superintendent what he fears most about his greens and the answer will likely be poa annua taking up residence. Poa, or annual bluegrass, is as invasive as crabgrass, and while puttable, it weakens and disfigures bentgrass greens. It is prolific, goes to seed even when cut at putting heights, and delights in traveling to a locations on the soles of golf shoes and on mowers.

Superintendent Chris Becker runs the greens show at Fairways Golf Course in Cheney, Wash. His job began three years ago

when the course was built. His mission: the finest putting surface around. This meant keeping the Pennncross bentgrass greens completely free of poa annua.

The weed thrives in this geographical area. Springs are wet, autumns a little less so. Summer days rarely go above 90 degrees and winters offer a warming blanket of snow that protects the shallow-rooted grass.

Becker's formula for poa-free greens is based on a decade of experience as a superintendent. In this time he has continually tested products, talked informally with other super-

*Continued on page 55*

## ON THE GREEN

### Share your story

If you have a solution to a problem, or an innovation, or a "funny-thing-happened" story to share with other superintendents, we will pay \$50 for the story or idea. Just write to: *Golf Course News*, P.O. Box 997, Yarmouth, Maine 04096, or call Mark Leslie at 207-846-0600.

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